2005-2006 Undergraduate Calendar

The information published in this Undergraduate Calendar outlines the rules, regulations, curricula, programs and fees for the 2005-2006 academic year, including the Summer Semester 2005, the Fall Semester 2005 and the Winter Semester 2006.

For your convenience the Undergraduate Calendar is available in PDF format.

If you wish to link to the Undergraduate Calendar please refer to the Linking Guidelines.

The University is a full member of:

• The Association of Universities and Colleges of Canada

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Disclaimer

University of Guelph 2005

The information published in this Undergraduate Calendar outlines the rules, regulations, curricula, programs and fees for the 2005-2006 academic year, including the Summer Semester 2005, the Fall Semester 2005 and the Winter Semester 2006.

The University reserves the right to change without notice any information contained in this calendar, including any rule or regulation pertaining to the standards for admission to, the requirements for the continuation of study in, and the requirements for the granting of degrees or diplomas in any or all of its programs. The publication of information in this calendar does not bind the University to the provision of courses, programs, schedules of studies, or facilities as listed herein.

The University will not be liable for any interruption in, or cancellation of, any academic activities as set forth in this calendar and related information where such interruption is caused by fire, strike, lock-out, inability to procure materials or trades, restrictive laws or governmental regulations, actions taken by faculty, staff or students of the University or by others, civil unrest or disobedience, or any other cause of any kind beyond the reasonable control of the University.

In the event of a discrepancy between a print version (downloaded) and the Web version, the Web version will apply,

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I. Statement of Students' Academic Responsibilities

Your success as a student depends above all on your own response to the opportunities and responsibilities that the university environment provides. The University of Guelph is committed to supporting you in your intellectual development and responding to your individual needs. To this end, a broad network of advising, counselling, and support services is provided to assist you in meeting your personal and academic goals. At the same time, we recognize that, as a student here, you are responsible for:

- knowing the University's Learning Objectives (Section II);
- familiarizing yourself with the Undergraduate Degree Regulations & Procedures (Section VIII) and understanding grading procedures and continuation of study regulations;
- selecting a program of study to meet both degree and specialization requirements (Section X--Degree Programs) and carefully reviewing the personalized Program/Academic Evaluation Report you receive each semester, which lists the degree requirements you have completed and those still outstanding;
- contacting your program counsellor or faculty advisor for appropriate approvals, for clarification of the University's rules and regulations, or for guidance in forming your educational goals and making academic plans. The name and location of your program counsellor (e.g. B.A. program counsellor) is listed in Section VII--Academic Advising. Once you have declared a specialization, a faculty advisor (e.g. psychology advisor) will be available to assist you;
- attending first class meetings, obtaining course outlines, and meeting the course requirements as specified;
- familiarizing yourself with the Schedule of Dates (Section III) with particular attention to deadlines;
- referring to the procedures for Academic Consideration (Section VIII--Undergraduate Degree Regulations & Procedures) and initiating action by consulting your program counsellor if extenuating circumstances affect your academic performance;
- understanding what constitutes Academic Misconduct (Section VIII--Undergraduate Degree Regulations & Procedures) and abiding by the University's policy;
- adhering to any rules of conduct including those relating to health and safety provided by an instructor or assistant, either on a course outline or in a class, laboratory or seminar;
- checking your assigned University of Guelph WEBmail account regularly for important communications. This account is the primary conduit by which the University will notify you of events, deadlines, announcements concerning grades, student financial accounts and other official information.

To achieve your full potential within the University environment, you are encouraged to take advantage of the numerous extra-curricular opportunities provided by the University, balancing them with your academic commitments.
II. The University

History

The University of Guelph was established in 1964, when its founding colleges--the Ontario Agricultural College, the Ontario Veterinary College and Macdonald Institute--joined with a new college of arts and science. Today, the University of Guelph comprises six colleges--College of Arts, College of Biological Science, College of Physical and Engineering Science, College of Social and Applied Human Sciences, the Ontario Agricultural College, and the Ontario Veterinary College.

The University of Guelph is renowned in Canada and around the world as a research-intensive and learner-centred institution and for its commitment to open learning, internationalism and collaboration.

Students may pursue more than 80 undergraduate and 45 graduate degree programs spanning the natural and physical sciences, social sciences and humanities. Faculty at the University of Guelph have won more prestigious 3M Fellow teaching awards than any comparably-sized university in Canada. Our students are no less accomplished: 99.8 percent of first-year students enter with an average of at least 75 percent.

A total of 16,905 students attend Guelph, including 15,880 full- and part-time undergraduates, 208 full- and part-time undergraduates at the University of Guelph-Humber, and 1,859 full- and part-time graduate students. The University of Guelph is a highly residential campus, with approximately 5,260 students living in campus residences.

With over $100 million in annual research funding, the University of Guelph is one of the country's top research institutions. Among its researchers, Guelph numbers 19 Fellows of the Royal Society of Canada. A 30-acre research park adjacent to the campus is home to a growing number of research-intensive industries.

An enhanced partnership reached in 1997 between the University of Guelph and the Ontario Ministry of Agriculture and Food (OMAF) relocated OMAF employees to an 86,000-square-foot research complex adjacent to campus, and made the University responsible for Ontario's agricultural colleges at Alfred, Kemptville and Ridgetown, the Horticultural Research Institute of Ontario and OMAF's Laboratory Services. With its enhanced partnership, its research park and the Guelph Food Technology Centre--an independent laboratory on campus for food processing research and product development--the University of Guelph is the hub of a rapidly growing cluster of agri-food education, research and laboratory services in Canada.

Guelph's commitment to internationalism is reflected in several ways. Guelph attracts 700 international students from 100 countries and maintains 58 study abroad programs (52 exchange and 6 semester abroad) with 30 countries. There are about 450 University of Guelph students studying abroad. The University of Guelph has 60 public- and private-sector partners in 30 countries, and participates in Canadian International Development Agency (CIDA) projects worth a total of $16.5 million around the world.

The University offers more than 150 distance degree credit courses to more than 13,500 course enrolments. Our graduates are Guelph's ambassadors to the world with more than 71,000 alumni in 130 countries.

University of Guelph-Humber

The University of Guelph-Humber is a joint venture developed by Humber College Institute of Technology and Advanced Learning and the University of Guelph. Located in Toronto on Humber College Institute of Technology and Advanced Learning's North Campus, it offers a range of academic programs leading to a university honours degree and a college diploma in four years.

For more information about the University of Guelph-Humber, see the web site at http://www.guelphhumber.ca.

Academic Organization

- College of Arts
  - School of Fine Art and Music
  - School of Languages and Literatures
  - School of English and Theatre Studies
- College of Biological Science
- College of Physical and Engineering Science
- School of Engineering
- College of Social and Applied Human Sciences
  - School of Hospitality and Tourism Management
- Ontario Agricultural College
- Collège d’Alfred
- Kemptville College
- Ridgetown College
- School of Environmental Design and Rural Development
- Ontario Veterinary College
- Faculty of Environmental Sciences
- Faculty of Management
- Faculty of Graduate Studies
- Biophysics Interdepartmental Group
- Centre for Families, Work and Well-Being
- Centre for Food Security
- Centre for Genetic Improvement of Livestock
- Centre for International Programs
- Health and Performance Centre
- Centre for Land and Water Stewardship
- Centre for New Students
- Centre for Toxicology
- Colonel K.L. Campbell Centre for the Study of Animal Welfare
- George Morris Centre
- Guelph Food Technology Centre
- Guelph Turfgrass Institute
- Horticultural Research Institute of Ontario
- Independent Study/OAC Access
- Institute for Environmental Policy and Stewardship
- Institute of Ichthyology
- Landscape Research Group
- Office of Open Learning
- Office of Research
- Teaching Support Services
- Four inter-university research programs:
  - Guelph Waterloo Centre for Research in Biotechnology
  - Guelph Waterloo Centre for Graduate Work in Physics
  - Guelph Waterloo Centre for Research in Chemistry
  - Guelph McMaster Graduate Program in Philosophy

Learning Objectives

A rising from the Aims and Objectives Report, the following Objectives were approved by the Senate of the University in 1987:

1. Literacy
2. Numeracy
3. Sense of Historical Development
4. Global Understanding
5. Moral Maturity
6. Aesthetic Maturity
7. Understanding of Forms of Inquiry
8. Depth and Breadth of Understanding
9. Independence of Thought
10. Love of Learning

They are a set of objectives described in terms of the desired characteristics of educated graduates, and are used in part to guide educators in their development of courses and programs. Their descriptions are as follows:

1. Literacy

Literacy is the base on which all else is predicated. The ability to read and write and, in general, to communicate properly is a fundamental intellectual tool. With it, students can learn to think clearly and to some purpose. Without it, they cannot analyze properly nor develop an independence of thought. Literacy affords a means of access to the raw material upon which the critical or creative intelligence is to be exercised. It affords a means of communication, of shaping ideas and concepts, of selecting between different or competing formulations. It is a means of instructing others.

The most basic experience in literacy given to the student should be the writing of a short expository paper, or the oral presentation of an informational report, on a prescribed topic or on a topic chosen from a restricted list.

At the next level, the student should be required to write a paper (or give a seminar), critical and analytical in its intent, on a topic of the student's devising. The ability to devise a topic, to frame its bounds, is at the same time an aspect of understanding of first order importance.

At the highest level, there should be produced a paper, in an appropriate style, that analyzes, synthesizes or argues from a hypothesis and itself generates hypotheses; that produces knowledge, insight, or understanding in the reader and manifests it on the part of the writer; that shows a breadth of understanding in drawing out implications and making connections between remote features of the domain; that, in short, demonstrates a love of learning and an intelligent creativity. This requirement may readily be met in existing senior honours paper courses and the like.

Over the course of an undergraduate education, the level of difficulty of the material which the student can read, comprehend, and utilize should increase. One way of securing this
might be to encourage, in each discipline program where they do not now exist, reading courses requiring independent work at the 4000 level.

In general, the ability to read and comprehend materials of the highest difficulty is enhanced in semester-long research paper courses and in reading courses. Such courses contribute also to independence of thought and to depth and breadth of understanding.

In its broadest sense, the objective of literacy implies that it is desirable that the student have skill in another language, so as to be able to comprehend material of the appropriate level of sophistication in that language.

2. Numeracy

For the purposes of this discussion, numeracy may be defined as the ability to use mathematics at a level and in a manner appropriate to good citizenship and to vocational fitness. Mathematics deals with quantity and form, with measurement, structures, and relations, and encompasses a richer intellectual domain than just the utilitarian skills of numerical computation. It is as a mode of thinking, no less than as a collection of useful techniques, that it justifies its place in any well-rounded curriculum.

Numeracy, in the sense adopted here, is an essential attribute of the informed and responsible citizen. A correct understanding of the proper use of numbers is necessary in a culture in which information routinely comes in numeric form and significant decisions of social policy often have quantification at their base. Without the ability to comprehend the use of quantitative data, and to detect instances of misuse, we may have to forego opportunities for independent judgment.

Numeracy, more generally, enforces an accuracy and precision of procedure and thought that is valuable to all educated persons. As a mode of conceptualization of thought, it should be shared by the educational apparatus of all graduating students. While a grasp of the nature and principles of mathematical forms of inquiry is essential to an understanding of scientific thought, it can be of benefit in other areas of intellectual activity. Opportunities for fostering numeracy exist in more disciplines than those traditionally requiring a substantial knowledge of mathematics. A recognition that numeracy, in association with literacy, forms the foundation of most if not all of the other learning objectives, should result in greater exploitation of those opportunities than in their avoidance.

3. Sense of Historical Development

All disciplines have a history, an understanding of which contributes to an understanding of the place each has in contemporary society. No discipline is self-sufficient, and no discipline is autonomous. "Historical development" should not be narrowly construed to mean only the history of the discipline within its own limits, but efforts should be made to connect developments in the discipline to wider coeval social conditions. Students may thereby be endowed with a sense of the fundamental relativity of knowledge and understanding at any given time.

This objective comports also a sense of the continuity of change (and, indeed, of discontinuities), over time.

This objective may facilitate the acceptance, on the part of students, of intellectual ambiguity or uncertainty; such acceptance is a mark of depth of understanding.

4. Global Understanding

Global understanding may be associated with "Sense of Historical Development". It can be described as comprehension of the variety of political, religious, cultural, geographical, biological, environmental, and historical forces in the shaping of nature and the human condition. It conveys to the student an understanding of the ways in which specific cultural or geographical or other circumstances condition the differences between nations or peoples, and an understanding of the place of his or her discipline in the international setting. Global understanding may be enhanced by a sense of historical perspective, by breadth of understanding, and by independence of thought. In its turn it may itself contribute to these.

5. Moral Maturity

Moral maturity is marked by depth and consistency of moral judgment; by recognition that any moral judgment may be fallible; that moral judgment is complex, in that moral principles, if they are to be applied to a specific case, may need to be interpreted. Moral maturity is a requirement in the person who is to apply a body of knowledge or a skill to the solution of a problem, or to the understanding of a situation, if the knowledge is not to remain abstract and the skill potential unrealized.

Attainment of this objective is probably best realized by appropriate consideration of moral issues in context, as they arise in the course of study. In this way, a moral perspective may be shown to be inherently important to study of a body of material, and not merely instrumental. As outcomes of this objective, students will understand the strengths and limitations of the various forms of inquiry, and the cultural, intellectual and historic impact of these forms. The student will be able to describe similarities and differences between the inquiry methods of the physical scientist, the biological scientist, the social scientist and the scholar of the humanities.

6. Aesthetic Maturity

Aesthetic maturity may be described as a quality of the critical response to some object, natural or artificial, external to the self. Or it may be a process of creation and development of the self. In the former case, aesthetic maturity may be attained by a sufficient exposure, not necessarily in courses alone, to works of art (inclusive of music, literature, and drama) and to the critical traditions concerning them. Such maturity may also be directed at aesthetic valuation of features of the natural environment.

In the latter case, attainment of the quality will require an active involvement in the work of creation itself. A different order of aesthetic maturity may be attained by practice of that form of manipulation and recreation of the original object known as criticism (as distinct from appreciation).

Viewed this way, aesthetic maturity has a certain resemblance to both independence of thought and depth of understanding, in requiring an active creativity.

Aesthetic maturity need not be divorced from the specific character of individual disciplines. By possession and exercise of aesthetic maturity, students may be brought to appreciate the order, elegance, and harmony not only of the subject matter, but also of the procedures, of the discipline.

7. Understanding of Forms of Inquiry

Inquiry, the search for truth, information, knowledge and understanding, follows a methodology based upon systematic study, reflection, intuition and innate creativity. Inquiry involves resolving an identified problem, collecting relevant information, evaluating the information and observing relationships in order to reach a conclusion. The student is the active inquirer and must be able to undertake the process independently. Scientific method represents a form of inquiry concerned with hypotheses development, data collection, analyses and interpretation. Just as an understanding of scientific inquiry is necessary for the educated citizen functioning in the midst of the technologies of the contemporary world, so too an appreciation of other modes of inquiry is an essential characteristic of an educated citizen. Graduates should be familiar with the modes of inquiry utilized, for example, by historians, by philosophers and by scholars concerned with the various fields of creative expression.

As outcomes of this objective, students will understand the strengths and limitations of the various forms of inquiry, and the cultural, intellectual and historic impact of these forms. The student will be able to describe similarities and differences between the inquiry methods of the physical scientist, the biological scientist, the social scientist and the scholar of the humanities.

8. Depth and Breadth of Understanding

Depth of understanding is an expression of the ability to operate across disciplinary boundaries in a coherent and productive way, with principles drawn from different disciplines.

Depth of understanding depends upon mastery of a body of knowledge, but it is not to be confused with knowledge, and is not necessarily commensurate with the number of courses taken in a subject.

Depth and breadth of understanding depend upon, and themselves contribute to, independence of thought; they contribute also to a love of learning. Possession of a historical perspective may be essential to a broad and deep understanding of a subject.

At the lowest level of experience, in courses introductory to a subject, students might be shown how sets of facts may be related to others both laterally and vertically (or hierarchically). The outcome of this might be simply consciousness, on the part of the student, of the possibilities of understanding, as distinct from simply knowing.

The next higher level moves from demonstration to the student of interrelationships to the development of the student’s own ability to create interrelations. The experience provided will develop a creative imaginativeness skillfully exercised on a body of material mastered in some detail. But the experience, like that provided for independence of thought, goes beyond display of erudition, and requires alert curiosity and a refusal to be content with mere assemblage of data. At this level, the student should be expected to integrate knowledge and modes of interpretation and comprehension from different disciplines so as to generate a new understanding. The highest level takes the student to the ability to deal in abstractions, to generate abstractions.

In general, depth and breadth of understanding are characterized by the ability to recognize the implications of the information at hand and to put it into a broader context; and by the ability to draw upon different disciplines to provide a clearer and deeper understanding of the discipline with which the student is immediately concerned.

These outcomes might be assessed in a piece of written work such as an independent research paper, in the design of an experiment, in the identification and solution of a problem, or in a work of aesthetic creation.

9. Independence of Thought

At the lowest level, students are shown the possibilities of independent thinking, by an instructor who, in the classroom and elsewhere, challenges orthodoxies and criticizes received opinions. The experience provided is that of imitation or emulation of a role model. At this level, the outcome might be no more than a receptivity, on the part of the student, to critical thinking and an openness to reasoned skepticism about the authority of the expert.

At a higher level, students become actively engaged in learning and thinking. At this level, they should be given the opportunity, in seminars, tutorials, or structured small group discussions, to offer their own challenges. The bases for such challenges may be unformed, and so the challenges themselves will be open to challenge. As students become more independent in thought, they are better able to combine ideas and to generate new ideas.
At the highest level, independence of thought is a manifestation of love of learning, and it may contribute to a sense of self worth and of well-being. At this level, opportunities are provided for self-directed learning. One accomplishment may be the ability to ask the right kinds of questions, rather than the ability always to have answers.

10. Love of Learning

Love of learning is perhaps the quality that activates all other qualities that are the focus of learning objectives. Its expression is not easily separable from demonstration of other virtues. Thus, the true lover of learning will demonstrate both independence of thought and depth of understanding. As a consequence, setting an objective for love of learning comports also setting an objective for other qualities as well. But love of learning is not exhausted by, for example, independence of thought.

Love of learning may be reflected in, or expressed in terms of, intellectual curiosity; the ability (as in independence of thought) to ask useful kinds of questions (rather than the ability always to have answers); the ability to see far reaching implications; the ability to make connections between disparate topics; energy and passion in the pursuit of knowledge and understanding; dissatisfaction with simply accumulating facts or data; and critical ability.

Testing and instruction must minimize rote learning, and, so far as possible, give scope for the exercise of individual patterns of learning and individual interests.

Love of learning may be impeded by the demands of frequent evaluation of students' performance. The time frames imposed at an institutional level, to provide an organizational framework for the university experience, may also impair love of learning.

Love of learning may best be enhanced by the provision of opportunities for the student's personal involvement in learning. Such opportunities are perhaps best furnished in independent research projects initiated by the student. In such autonomous, but supervised, study the student can not only engage with the conflicting views of published authorities but also see in action, close at hand, the supervisor's own love of learning.

In courses of formal instruction, the use of team teaching might help to encourage a student's own love of learning, especially if members of the teaching team take an appropriate role as "students", and if true dialogue is developed between the teachers.

Mission Statement

The University of Guelph is a research-intensive, learner-centred university. Its core value is the pursuit of truth. Its aim is to serve society and to enhance the quality of life through scholarship. Both in its research and in its teaching programs, the University is committed to a global perspective.

The University offers a wide range of excellent programs, both in theoretical and applied, disciplinary and interdisciplinary, undergraduate and graduate, in the arts, humanities, social sciences, natural sciences, as well as professional fields. Among these, it recognizes agriculture and veterinary medicine as areas of special responsibility.

The University attracts students, faculty, and staff of the highest quality. It is animated by a spirit of free and open enquiry, collaboration, and mutual respect. It asserts the fundamental equality of all human beings and is committed to creating for all members of its community, an environment that is hospitable, safe, supportive, equitable, pleasurable, and above all, intellectually challenging.

The University of Guelph is determined to put the learner at the centre of all it does, recognizing that research and teaching are intimately linked and that learning is a life-long commitment. The University eagerly promotes collaboration among undergraduates, graduate students, faculty, staff, and alumni, as well as with our local and international community, other educational institutions, government and business.

The University of Guelph is committed to the highest standards of pedagogy, to the education and well-being of the whole person, to meeting the needs of all learners in a purposefully diverse community, to the pursuit of its articulated learning objectives, to rigorous self-assessment, critical inquiry, and active learning. The University of Guelph educates students for life and work in a rapidly changing world.

The University of Guelph invites public scrutiny of the fulfillment of its mission, especially by the people of Ontario, to whom it is accountable.
III. Schedule of Dates

The dates for the 2005-2006 academic year are listed by semester below as follows:

Summer Semester 2005

Summer Semester 2005 (12 Week Format)

Friday, April 22
• Last day of course selection for Summer 2005--NEW STUDENTS

Monday, April 25
• Last day to submit Requests for Academic Consideration - 3rd meeting

Monday, May 2
• Last day for applications for internal program transfer to Fall Semester 2005 for all programs except B.L.A., and D.V.M.

Wednesday, May 11
• Add period begins

Thursday, May 12
• Class schedule commences

Friday, May 13
• Last day to submit Requests for Academic Consideration--1st meeting
• Last day to submit co-op work performance evaluations for Winter Semester 2005

Thursday, May 19
• Ridgetown College Convocation

Friday, May 20
• Add period ends
• Last day to drop two-semester courses (W/S)
• Last day for clearance to graduate for Summer Convocation

Monday, May 23
• Holiday--NO FULL-SEMESTER COURSES SCHEDULED--classes rescheduled to Thursday, August 4

Thursday, May 26
• Last day to submit co-op work semester reports for Winter Semester 2005

Friday, May 27
• Kemptville College Convocation

Saturday, May 28
• Alfred College Convocation

Monday, June 6
• Course selection period for Fall Semester 2005 begins--In-course students

Thursday, June 9
• Last day to submit Requests for Academic Consideration--2nd meeting

Friday, June 10
• Course selection period for Fall Semester 2005 ends--In-course students

Monday, June 13
• Summer Convocation

Tuesday, June 14
• Summer Convocation

Wednesday, June 15
• Summer Convocation

Thursday, June 16
• Summer Convocation
• Deferred examinations commence

Friday, June 17
• Summer Convocation
• Last day for applications to graduate for Fall Convocation

Saturday, June 18
• Deferred examinations scheduled

Tuesday, June 21
• Deferred examinations conclude

Friday, July 1
• Holiday--NO COURSES SCHEDULED--classes rescheduled to Friday, August 5

Friday, July 8
• Fortieth class day--Last day to drop one semester courses

Friday, July 22
• Last day of course selection for Fall 2005--NEW STUDENTS

Monday, August 1
• Holiday--NO COURSES SCHEDULED--classes rescheduled to Monday, August 8

Thursday, August 4
• Classes rescheduled from Monday, May 23, Monday schedule in effect

Friday, August 5
• Classes rescheduled from Friday, July 1, Friday schedule in effect

Monday, August 8
• Classes rescheduled from Monday, August 1, Monday schedule in effect
• Classes conclude

Thursday, August 11
• Examinations commence

Saturday, August 13
• Examinations scheduled

Monday, August 15
• Early add period for Fall Semester 2005 begins

Friday, August 19
• Examinations conclude

Monday, August 22
• Last day to submit Requests for Academic Consideration--3rd meeting

Summer Session 2005 (6 Week Format)

Thursday, May 12
• Class schedule commences

Friday, May 16
• Last day to add Summer Session courses

Monday, May 23
• Holiday--CLASSES ARE SCHEDULED--Summer Session courses only

Friday, June 3
• Last day for dropping courses in Summer Session

Friday, June 24
• Classes conclude

Monday, June 27
• Examinations commence

Friday, July 1
• Examinations conclude

Fall Semester 2005

Friday, July 22
• Last day of course selection for Fall 2005--NEW STUDENTS

Monday, September 5
• Holiday

Friday, September 9
• Last day to submit Requests for Academic Consideration--1st meeting

Monday, September 12
• Class schedule commences

Tuesday, September 13
• Last day to submit co-op work performance evaluations for Summer 2005

Friday, September 16
• Add period ends
• Last day to drop two-semester courses (S/F)

Friday, September 23
• Last day to submit co-op work semester reports for Summer 2005
• Last day for clearance to graduate for Fall Convocation (in absentia only--No Ceremony)

Friday, October 7
• Last day to submit Requests for Academic Consideration--2nd meeting

Monday, October 10
• Holiday--NO CLASSES SCHEDULED

Tuesday, October 11
• Deferred examinations commence
• Course selection period for Winter Semester 2006 begins--In-course students

Friday, October 14
• Last day for applications to graduate for Winter Convocation

Saturday, October 15
• Last day for applications to graduate for Winter Convocation

Last Revision: October 18, 2005
### III. Schedule of Dates, D.V.M. Fall Semester 2005

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
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<tbody>
<tr>
<td><strong>Monday, October 17</strong></td>
<td>defer examinations conclude</td>
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<tr>
<td><strong>Fall Convocation--No Ceremony</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Tuesday, November 1</strong></td>
<td>last day for applications for admission to Winter Semester 2006 for all programs with winter entry</td>
</tr>
<tr>
<td><strong>Thursday, November 3</strong></td>
<td>course selection period ends--In-course students</td>
</tr>
<tr>
<td><strong>Monday, November 7</strong></td>
<td>fortieth class day--last day to drop one semester courses</td>
</tr>
<tr>
<td><strong>Monday, November 14</strong></td>
<td>last day to apply for international exchange programs departing in Summer 2006 without late application fee</td>
</tr>
<tr>
<td><strong>Friday, November 18</strong></td>
<td>last day of course selection for Winter Semester 2006--NEW STUDENTS</td>
</tr>
<tr>
<td><strong>Friday, December 2</strong></td>
<td>classes conclude</td>
</tr>
<tr>
<td><strong>Monday, December 5</strong></td>
<td>examinations commence</td>
</tr>
<tr>
<td><strong>Monday, December 12</strong></td>
<td>early add period for Winter Semester 2006 begins</td>
</tr>
<tr>
<td><strong>Friday, December 16</strong></td>
<td>examinations conclude</td>
</tr>
<tr>
<td><strong>Monday, December 19</strong></td>
<td>last day to submit Requests for Academic Consideration--3rd meeting</td>
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### D.V.M. Fall Semester 2005

<table>
<thead>
<tr>
<th>Date</th>
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<tbody>
<tr>
<td><strong>Monday, September 5</strong></td>
<td>holiday</td>
</tr>
<tr>
<td><strong>Tuesday, September 6</strong></td>
<td>classes commence (Phase 1, Phase 2, Phase 3)</td>
</tr>
<tr>
<td><strong>Monday, October 10</strong></td>
<td>rotations commence (Phase 4)</td>
</tr>
<tr>
<td><strong>Friday, December 2</strong></td>
<td>classes conclude (Phase 1, Phase 2, Phase 3)</td>
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### Winter Semester 2006

<table>
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<tr>
<th>Date</th>
<th>Event</th>
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<tbody>
<tr>
<td><strong>Monday, January 9</strong></td>
<td>class schedule commences</td>
</tr>
<tr>
<td><strong>Tuesday, January 10</strong></td>
<td>last day to submit co-op work performance evaluations for Fall 2005</td>
</tr>
<tr>
<td><strong>Friday, January 13</strong></td>
<td>add period ends</td>
</tr>
<tr>
<td><strong>Friday, January 20</strong></td>
<td>last day to drop two-semester courses (F/W)</td>
</tr>
<tr>
<td><strong>Friday, January 27</strong></td>
<td>last day for clearance to graduate for Winter Convocation</td>
</tr>
<tr>
<td><strong>Wednesday, February 1</strong></td>
<td>last day to submit co-op work semester reports for Fall Semester 2005</td>
</tr>
<tr>
<td><strong>Friday, February 3</strong></td>
<td>last day to submit Request for Academic Consideration--2nd meeting</td>
</tr>
<tr>
<td><strong>Thursday, February 9</strong></td>
<td>deferred examinations commence</td>
</tr>
<tr>
<td><strong>Friday, February 10</strong></td>
<td>last day to apply for international exchange programs departing in Fall 2006 or Winter 2007 without late application fee</td>
</tr>
<tr>
<td><strong>Saturday, February 11</strong></td>
<td>last day for applications to graduate for Summer Convocation</td>
</tr>
<tr>
<td><strong>Tuesday, February 14</strong></td>
<td>deferred examinations scheduled</td>
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### D.V.M. Winter Semester 2006

<table>
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<tr>
<th>Date</th>
<th>Event</th>
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<tbody>
<tr>
<td><strong>Monday, January 2</strong></td>
<td>classes commence (Phase 1, Phase 2, Phase 3)</td>
</tr>
<tr>
<td><strong>Wednesday, January 4</strong></td>
<td>rotations commence (Phase 4)</td>
</tr>
<tr>
<td><strong>Friday, January 20</strong></td>
<td>last day for applications for admission to D.V.M.</td>
</tr>
<tr>
<td><strong>Monday, February 20</strong></td>
<td>winter break begins--NO CLASSES SCHEDULED THIS WEEK (Phase 1, Phase 2, Phase 3)</td>
</tr>
<tr>
<td><strong>Friday, February 24</strong></td>
<td>winter break ends</td>
</tr>
<tr>
<td><strong>Monday, February 27</strong></td>
<td>classes resume (Phase 1, Phase 2, Phase 3)</td>
</tr>
<tr>
<td><strong>Friday, March 31</strong></td>
<td>classes conclude (Phase 1, Phase 2)</td>
</tr>
<tr>
<td><strong>Monday, April 3</strong></td>
<td>laboratory evaluations commence (Phase 1, Phase 2)</td>
</tr>
<tr>
<td><strong>Friday, April 7</strong></td>
<td>classes conclude (Phase 3)</td>
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</table>
Thursday, April 13
• Rotations conclude (Phase 4)

Friday, April 14
• Holiday--NO EXAMINATIONS SCHEDULED

Monday, April 24
• Examinations and evaluations conclude (Phase 1, Phase 2, Phase 3, Phase 4)

Monday, May 8
• Externship course begins (Phase 4)
IV. Admission Information

Admission Requirements to University Programs in 2005

Semester One Admission

Entry Points

Admission to Semester One of a degree program and General Studies is available in the Fall semester only. A Semester One degree applicant is defined as one who will receive fewer than 2.00 credits upon admission.

1. Applicants from Ontario Secondary Schools

Students seeking admission to a degree program must present the Ontario Secondary School Diploma (OSSD), or equivalent, and a minimum of 6 Grade 12U or 12M and/or OACs credits, including OAC English I or Eng 12U. All specific subject requirements must be OACs or Grade 12U credits. Specific subject requirements for admission to the various degree programs are outlined in this section. Students are also advised to consult Section X of the Calendar (Undergraduate Degree Programs) to note those subjects which are recommended for specific programs.

In some cases, applicants with high academic standing may be admitted if they are deficient in one of the specific subject requirements. The exceptions to this are Cooperative Education and the Bachelor of Commerce Program for which applicants must have completed all of the specific subject requirements.

Offers of Admission will be released starting in February. All offers of admission which are based on interim grades will be conditional upon completion of the OSSD with 6 Grade 12U or 12M and/or OACs credits (or equivalent) and including specific subject requirements. The minimum final admission average which the applicant will have to achieve will be stipulated in the condition. Grades in specific subject requirements are included in the calculation of the admission average. The University reserves the right to revoke the offer of admission should a student fail to meet any condition in the offer.

Students will not be required to respond to the offer until the common response date for all Ontario universities. Those wishing to respond earlier may do so.

Applicants who have not received an offer of admission by early June may be eligible for admission consideration to all non-limited enrolment programs by submitting their final grades. Admission consideration will be given on the basis of final grades only when places are still available in the program and/or specialization to which the student has applied at the time that the final grades are received. Applicants may be required to possess an admission average higher than those outlined for guaranteed admission.

It is the applicant’s responsibility to submit final, summer school or correspondence course grades to Admission Services, Level 3, University Centre, University of Guelph, Guelph, Ontario, N1G 2W1, as soon as they become available. The following methods for submission of final grades will be acceptable:

a. report card issued by the secondary school
b. certified copy of the report card
c. a transcript of marks issued by the secondary school and forwarded directly to the University.

It is suggested that students follow method a) above in order to facilitate the processing of their application. Any offers based on faxed information are conditional upon receipt of the official document.

International Baccalaureate

Students applying for admission on the basis of the IB Diploma should possess a minimum score of 28. Bonus points may be taken into consideration. Applicants are advised that most programs will require a higher score for admission consideration. Students currently in their final year of the IB program are encouraged to present "predicted" scores on the seven point scale, which will be taken into consideration to extend conditional offers of admission. The predicted scores can include grades from the Extended Essay and the Theory of Knowledge. Students must include, among their higher and standard levels, the specific subject requirements for the program to which they are applying. Unspecified transfer credits, to a maximum of 2.00 credits, will be granted for grades of 5 or better on higher level courses where the applicant has been awarded the IB Diploma. Students may request specific credit on an individual basis. Unspecified transfer credits, to a maximum of 2.00 credits, will be granted for grades of 5 or better on higher level courses where the applicant has been awarded the Certificate.

The English Proficiency Requirement will be waived for applicants who have completed the Diploma where the language of instruction is English. Credit will be assigned upon receipt of official final results.

Advanced Placement

Advanced Placement courses may be used to determine admissibility and also granting of credit or exemption. Applicants who have completed Advanced Placement courses with a minimum grade of 4 may be eligible to receive university credit to a maximum of 2.00 credits. The granting of credits and exemptions is at the discretion of the appropriate faculty, and will be based on official final results.

2. Applicants from Outside Ontario

Applicants whose preparation to enter the University has been completed outside the Ontario secondary school system must have achieved, as a minimum requirement, academic standing equivalent to that required of Ontario students and must satisfy the subject requirements for the program desired. Students should refer to the information for Ontario applicants regarding specific subject deficiencies. The university will take into consideration the availability of specific course requirements in other countries or provinces to ensure that the applicant is not disadvantaged if particular senior secondary courses are not offered. Please refer to the information following this section regarding specific subject requirements and equivalents.

Conditional offers of admission may be released on the basis of interim and/or first term grades. Some decisions may be deferred until final grades are submitted. Applicants are encouraged to submit any academic information which might expedite an admission decision by April 1. The condition of the offer will be applied as outlined for Ontario applicants.


b. United States of America - Students must have a minimum grade point average of 3.0 from an accredited high school. In addition, they must present a minimum combined SAT score of 1100 or ACT score of 24. Where class rankings are reported on the transcript, a ranking in the top quarter is preferred. Students should include, among their senior level courses, specific subjects that are required for admission to the degree program of their choice.

c. General Certificate of Education (GCE) Systems - Applicants must present either the GCSE (or IGCSE) and the GCE showing one of:
   i. passes in five subjects, at least two of which must be at the GCE Advanced level
   ii. passes in four subjects, at least three of which must be at the GCE Advanced level

d. Other Countries - The secondary school graduation certificate which admits to an internationally recognized university in another country is normally acceptable, provided that it is the equivalent of admission requirements for the University of Guelph.

Note: Possession of these minimum requirements does not guarantee admission. Required levels of academic preparation may vary according to the jurisdiction or country in which course work was completed. Applicants are encouraged to contact Admission Services prior to formal application in order to obtain specific information on admission requirements. They are strongly advised to provide detailed information on their particular situation.

3. Applicants for Admission as Mature Students

Statement of the Regulation

Applicants who do not possess the published minimum requirements for admission consideration may be considered for admission to degree programs if space permits and if, prior to the beginning of the Fall semester, they

a. will have attained at least the full age of twenty-one years;

b. will have been out of secondary school for at least two years;

c. will have normally not attended another post-secondary institution.

In addition, applicants must meet specific subject requirements or equivalents as outlined below for the degree programs to which they have applied. Admission as a Mature Student is available in the Fall semester only.

B.A. and B.A.A. Programs

Students who meet the requirements to be considered for admission as mature applicants must have acceptable standing as follows:

- ENGU 4 and 2 additional 12U or 12M credits, one of which must contain a writing component

Note: Mature Students who do not possess the minimum requirements for direct admission to the degree program must successfully complete a minimum of 2.00 credits in the General Studies program before applying to transfer to the B.A. program.

B.A.A. Program

Applicants who satisfy conditions a) and b) outlined in the "Statement of the Regulation" and wish to be considered for admission under the Mature Student Regulation must have obtained standing as follows:

- ENGU 4 and 12U Mathematics and one additional 12U or 12M credit.

B.Comm. Program

Applicants who satisfy conditions a) and b) outlined in the "Statement of the Regulation" and wish to be considered for admission under the Mature Student Regulation must have obtained standing as follows:

- HRM, HREM, TMGT, HAFG, PMGT: ENGU 4, 12U Mathematics, and one additional 12U/12M credit.

- AG BUS, MKMN, MEIF: ENGU 4, Advanced Functions and Introductory Calculus, and one additional 12U/12M credit.
Applicants will be required to submit a letter, for consideration by the Admissions Committee, in which they outline their academic goals.


Applicants for any of these programs who satisfy conditions a) and b) outlined in the “Statement of the Regulation” and wish to be considered for admission under the Mature Student Regulation must have obtained standing in the specific Grade 12 or University or OAC subjects or equivalent which are required of regular applicants for these programs.

General Notes and Recommendations

The minimum average required for admission consideration will normally be that required for regular admission from secondary school. Students applying under the Mature Student Regulation must submit official transcripts of any previous post-secondary work undertaken and are encouraged to write a letter explaining their activities since their last academic semester. This academic record will be considered by the Admissions Committee in reaching an admission decision.

General Studies

The objective of General Studies is to provide students who do not meet the normal University admission criteria with the opportunity to take university courses before registering in a specific degree program or to take university courses for continued learning with no immediate intention of registering in a degree program. All applicants must be Canadian citizens or Permanent Residents. Applicants will normally:

- have not previously registered at a university
- have completed O.S.S.D. or equivalent
- have been out of secondary school for 5 years.

Applicants must submit a back-end information sheet which will provide their intended study objectives, including courses and program. The University, via the General Studies Admissions Committee, reserves the right to grant or deny admission to a candidate based on the appropriateness of the applicant’s submissions.

Applicants to the General Studies program who wish to transfer to a degree program in the future should contact Admission Services, Office of Registrarial Services for specific internal transfer admission requirements. These requirements may vary with the degree program for which transfer is sought.

Application to General Studies in the first instance is for part-time study only and available for Fall entry point only. As such, students may take a maximum of 1.50 credits in the first semester. In special circumstances, permission to study full-time may be granted by the General Studies Admissions Committee. Successful completion (minimum 60% cumulative average) of 1.50 credits is required before full-time study in General Studies can be undertaken.

Advanced Standing Admission

1. Advanced Standing Applicants from a recognized University or College in Canada

Applicants for admission to the University of Guelph transferring from an accredited university or college are normally subject to the following admission policy.

a. Applicants must have completed the Ontario Secondary School Diploma including 6 Grade 12U or 12M or OACs credits, or equivalent, for admission to the University of Guelph prior to the commencement of the academic session for which application is made.

b. Applicants must be eligible for readmission and registration on a full-time basis at the last university or college attended in the academic session for which application is made. Applicants whose academic records at another university have rendered them ineligible to continue study at that university will be considered for admission only when the stipulated period of rustication has expired.

c. Students registered in a preliminary year, bridging year or first year at a recognized university or junior college to which students are admitted without having completed the Ontario Secondary School Diploma or equivalent are eligible to apply for admission to first year at this University provided that their first or preliminary year program includes subjects equivalent to those Grade 12U or 12M or OACs credits required for admission to each program. Credit towards graduation from the University of Guelph is not normally granted for work taken in the first year of the university program which does not require completion of the Ontario Secondary School Diploma or equivalent for admission.

d. Admission of students transferring from another university or college is not automatic. Admissions to the University of Guelph are based on the recognition that, while learning experiences may differ in a variety of ways, their substance may be essentially equivalent in terms of their content and rigour. Upon admission, and insofar as possible, acceptance of transfer credit should allow for the maximum recognition of previous learning experience in passed university-level courses.

Subject to the degree and specialization to which the applicant is admitted, and to grade and program requirements, any course offered for credit by another Ontario university shall be accepted for credit when there is an essential equivalency in course content.

f. In addition, the University of Guelph supports the intent of the Pan-Canadian Protocol on the Transferability of University Credits to develop consistent, fair and efficient systems to facilitate student mobility and program completion. Additionally, the principles of the Protocol, the University of Guelph undertakes to ensure that all course work completed by transfer students in the first two years of University study in Canada (including the final year leading to a diploma of college studies (DCS) in Quebec and the transfer courses offered by community colleges in British Columbia and Alberta) are recognized and, subject to degree, grade and program requirements are credited for the purpose of granting a degree provided that:

i. the applicant is deemed admissible and has been offered admission

ii. a passing grade has been achieved in each course to be transferred and the grade is at the level that normally would be required of students at the University of Guelph

iii. the credits earned are related to the program of study in which the transfer student will register, or the credits can be counted as electives in the program of study.

h. Candidates from non-Ontario universities or colleges applying for advanced standing must submit, with the application, detailed course descriptions, or a calendar of the institution at which they studied. The provision of such information will greatly facilitate the evaluation of previous work and the consideration of possible transfer of credits. The amount of transfer credit granted is at the discretion of the Registrar and the Dean of the College concerned.

Note: Where necessary, the grades from other universities or colleges whose marking schemes differ from those of this University shall be translated into the equivalent grades of the University of Guelph and admissibility assessed in those terms. Applicants for transfer, for whom English is a second language, must submit with their application, evidence acceptable to this University of Proficiency in English (see English Proficiency in this section of the calendar).

Specific graduation requirements will be determined in consultation with the program counsellor and departmental advisor.

2. Applicants from Universities Outside of Canada

The amount of credit granted will be dependent upon the institution and upon the educational system. The University of Guelph does not grant advanced standing for work experience or for involvement in programs such as the World Youth Organization.

3. Advanced Standing Applications from Recognized Community Colleges or Other Post-Secondary Institutions

The University of Guelph will also consider the granting of advanced standing for studies completed in certain post-secondary institutions. Included in this category are:

a. Colleges of Applied Arts and Technology

Graduates from appropriate programs may be considered for admission with advanced standing in accordance with the following policy:

i. Transfer credits are determined by the Admissions Committee of the program to which the student is admitted, and in accordance with any existing articulation agreement with the CAAT in question. Please refer to the information at the beginning of Section IV on Articulation Agreements.

ii. Transfer credits will be based on courses completed at a CAAT with a grade of ‘B’ or better, where those courses are deemed appropriate to the program to which the student is admitted at this University. A minimum overall average of B is required in CAAT diploma programs for consideration of any transfer credit.
iii. Up to 7.50 credits may be granted to students from a three-year diploma program, and up to 3.00 credits may be granted to students from a two-year diploma program. The granting of additional transfer credits would be considered in the case of graduates from a one-year post-diploma program.

iv. Should a student transfer to a different program after admission to the University of Guelph, credits assigned upon admission will be re-assessed where deemed appropriate by the Admissions Committee of the program.

b. Colleges of Agricultural Technology

Graduates of the two-year Associate Diploma programs or other two-year programs offered by the Colleges of Agricultural Technology may receive a maximum of 3.00 transfer credits upon admission to a degree program. Graduates admitted to the Bachelor of Science in Agriculture program may be eligible for additional transfer credit. A minimum overall average of B is required in the Associate Diploma Program(s) for consideration of any transfer credit.

4. Ontario College of Art and Design

In recognition of the equivalency of many of the courses in the program of the Ontario College of Art and Design, the University wishes to encourage qualified students of OCAD to complement their education there by studying at the University of Guelph and completing the requirements for a B.A. degree. Options available in Fine Art are listed in the B.A. schedule of studies.

If admitted to the University, students transferring from OCAD may be granted advanced standing for course work completed at OCAD according to the following schedule:

a. Completion of first year: up to 2.50 credits in Fine Art--1.50 in Fine Art (Studio) and 1.00 in Art History
b. Completion of second year: up to 5.00 credits in Fine Art--4.00 in Fine Art (Studio) and 1.00 in Art History
c. Completion of third year: up to 7.50 credits in Fine Art--6.50 in Fine Art (Studio) and 1.00 in Art History
d. Completion of four-year Diploma: up to 10.00 credits in Fine Art--9.00 in Fine Art (Studio) and 1.00 in Art History.

Students are warned that even if they are given advanced standing in 10.00 credits, it is extremely unlikely that they will be able to complete the B.A. program requirements within two semesters. Please note that OCAD graduates may take a maximum of 2.00 credits in Fine Art (Studio) at Guelph.

If an offer of admission is granted, advanced standing will be determined based on assessment of the OCAD transcript by the School of Fine Art and Music. Credit will be granted only for studies completed while registered at OCAD. Please note that this transfer credit arrangement applies only to the B.A. program.

Any applicant who has completed academic studies at a post-secondary institution other than OCAD must supply a transcript to Admission Services. All previous post-secondary work will be considered in determining eligibility for admission and granting transfer credit. Students currently enrolled at OCAD who are interested in working towards a B.A. concurrently may apply for admission and pursue their studies in the Summer Semester.

Please contact Admission Services, Office of Registries, Level 3, University Centre, University of Guelph, Guelph, Ontario, N1G 2W1 for additional information.

5. CEGEPS - Province of Quebec

a. Applicants who present the Diplôme des Etudes Collegiales may be eligible for advanced standing, to a maximum of 5.00 credits.

b. For more specific information candidates may contact Admission Services, Office of Registries, University of Guelph.

Advanced Standing Entry Points

Students applying from another post-secondary institution as advanced standing applicants may apply to the Fall entry point only. Applicants are considered as 'Advanced Standing' if they will receive 2.00 or more transfer credits upon admission. Applicants to the University are requested, where possible, to indicate on the Ontario Universities' Application Centre form their subject of primary interest. In many cases the program code to be inserted on the application form will include the subject of primary interest as outlined in the following table. It should be noted that an offer of admission applies to both the degree program and to the major area of study specified in the offer.

Because enrolment in certain courses is limited by the availability of resources, the University cannot guarantee that all students wishing to take a particular specialization will be accommodated. Applicants wishing to enrol in courses offered in the distance only mode for personal interest or for professional development should contact the Office of Open Learning for further information and to obtain the appropriate application form.

Application Procedures

Current Diploma application procedures are outlined in the Diploma Program Calendar. Doctor of Veterinary Medicine procedures are outlined in the previous section "Admission Requirements". All procedures are applicable to both full and part-time applicants. Applicants for part-time study are considered on the same basis as full-time applicants, and therefore must meet the published admission requirements for the program desired.
1. Those applicants who do not intend to apply to another university within Ontario should complete the University of Guelph application form. This form is only available from Admission Services at http://www.uoguelph.ca/admissions/prospective/international/index.shtml.

2. Applicants who wish to apply to more than one university within Ontario should contact the Ontario Universities’ Application Centre and request a 105 application form. This form should be completed and returned to the Application Centre. All other documents should be sent directly to Admission Services. To request an application, contact the Ontario Universities’ Application Centre by email at request@ouac.on.ca.

3. An on-line application service for those who will be applying to more than one Ontario university is also provided by the Ontario Universities’ Application Centre. Applicants can access the computerized application service at http://compass.ouac.on.ca.

4. U.S. students who wish to apply only to the University of Guelph may download the University of Guelph application for students from the United States from our website at http://www.uoguelph.ca/admissions/prospective/american/index.shtml.

Applicants who wish to check on the status of their application or to verify that all required documentation has been received may contact us by emailing internat@registrar.uoguelph.ca. Applicants should not direct questions about the possibility of admission to this address. Please refer to previous sections on Applicants from Outside Ontario and Applicants from Universities Outside of Canada for general information on admission requirements. The Admission Committees, upon receipt of a completed application form and all pertinent documentation, will make specific admission assessments for individual applicants.

Applying From Another Campus of the University of Guelph

Applicants from Alfred, Kemptville, and Ridgeway Colleges should contact their college Registrar for the appropriate application form. Applicants wishing to transfer from the University of Guelph-Humber to the University of Guelph should follow the process outlined below.

Applying For Internal Transfer or Readmission

University of Guelph students wishing to apply to another program within the University or for readmission should complete the Internal Transfer Application form which is available from the University of Guelph web site at http://www.uoguelph.ca/admissions/prospective/transfer/index.shtml.

Articulation Agreements

Alfred College

Bachelor of Commerce-Hotel and Food Administration

Graduates with a minimum grade point average of 3.0 (B+) from the two-year Food, Nutrition and Risk Management Diploma program may apply to transfer to the Hotel and Food Administration major of the Bachelor of Commerce program. Applicants must have completed an OAC credit or equivalent in Mathematics and English. Upon admission, up to 6.00 advanced standing credits may be transferred. Interested students should contact the program counsellor for the Bachelor of Commerce program.

Algonquin College

Bachelor of Commerce-Hotel and Food Administration

The articulation agreement between the University of Guelph and Algonquin College provides an opportunity for graduates from the two-year Hotel and Restaurant Management Diploma program with a minimum grade point average of 3.0 (B+) to be considered for admission to the Hotel and Food Administration major of the Bachelor of Commerce program with 6.00 advanced standing credits. Applicants will be required to have completed an OAC credit or equivalent in Mathematics and English. Interested students should contact the Bachelor of Commerce program counsellor for further information.

Associate Diploma programs - University of Guelph

Bachelor of Commerce - Agricultural Business

Graduates of the Diploma in Agriculture program and the Diploma in Horticulture program may transfer to the Bachelor of Commerce program provided they have achieved a cumulative average of 70% or higher in the Diploma program. In addition, Diploma students must have completed the OAC admission requirements, or equivalent, for admission to the Bachelor of Commerce program. To receive specific advanced standing degree credits, a minimum B (70%) standing is required in each diploma course. Students are eligible to receive a maximum of 4.00 credits. Diploma students may also obtain credit for any passed degree courses which they completed as Diploma students. Interested students should contact the program counsellor for the Bachelor of Commerce program for information regarding transfer credit.

Bachelor of Science in Agriculture

Graduates of the Diploma in Agriculture program and the Diploma in Horticulture program may transfer to the Bachelor of Science in Agriculture program provided they have achieved a cumulative 70% or higher in the Diploma program. To receive degree credit, a student must have a minimum "B" standing (70%) in the diploma course(s) specified.

Upon admission to the degree program, credit will also be considered for any degree courses successfully completed while in the Diploma program.

Atlantic Tourism and Hospitality Institute

Bachelor of Commerce-Hotel and Food Administration

The University of Guelph and Atlantic Tourism and Hospitality Institute have signed an articulation agreement which will allow students graduating from the 2-year Hotel and Restaurant Management program with a minimum 3.0 (B+) cumulative grade point average and who have completed an OAC or equivalent course in Mathematics and English to be admitted to the Bachelor of Commerce program with 11.00 transfer credits. Interested students should contact the Bachelor of Commerce program counsellor for further information.

Canadore College

Bachelor of Commerce-Hotel and Food Administration

The articulation agreement between the University of Guelph and Canadore College provides an opportunity for graduates from the three-year Hospitality and Tourism Administration program at Canadore College. Applicants must have a minimum 3.0 (B+) grade point average and have completed an OAC credit or equivalent in Mathematics and English. Upon admission, students will be granted 11.00 transfer credits towards the degree. Interested students should contact the Bachelor of Commerce program counsellor for further information.

Centennial College

Bachelor of Commerce-Hotel and Food Administration

The University of Guelph will make up to five places available for admission into the Bachelor of Commerce program major of the Bachelor of Commerce program for graduates of the three-year Hospitality and Tourism Administration program at Centennial College. Applicants must have a minimum 3.0 (B+) grade point average and have completed an OAC credit or equivalent in Mathematics and English. Upon admission, students will be granted 11.00 transfer credits towards the degree. Interested students should contact the Bachelor of Commerce program counsellor for further information.

Bachelor of Commerce-Marketing

An articulation agreement between the Bachelor of Commerce program at the University of Guelph and the Co-op Marketing Diploma at Centennial College facilitates the transfer of students between the two institutions. Students are provided with the opportunity to complete the degree at the University of Guelph and the diploma from Centennial College. Applicants transferring from the College may begin their studies at the University commencing in the Winter semester, in the second year of the Marketing Management major. Interested students should direct their enquiries to the program counsellor for the Bachelor of Commerce program.

Conestoga College Institute of Technology and Advanced Learning

Bachelor of Commerce-Agricultural Business, Housing and Real Estate Management, Hotel and Food Administration, Management Economics in Industry and Finance, Marketing Management

The University of Guelph will make up to 3 spaces available annually in the above programs to qualified graduates from the following programs at Conestoga College Institute of Technology and Advanced Learning: Business Administration - Marketing, Management Studies, Accounting; General Business; Food and Beverage Management; Computer programmer/Analyst. Applicants to the degree program must have completed an OAC credit or equivalent in Mathematics and English (or other OAC Mathematics for HFAF). The number of advanced standing transfer credits will vary depending upon the program completed at Conestoga. Prospective applicants should contact the Bachelor of Commerce program counsellor.

Fanshawe College

Bachelor of Landscape Architecture

An articulation agreement between Fanshawe College and the University of Guelph provides up to five (5) places per year for graduates of the Landscape Design program (Landscape Design Diploma) who have a minimum cumulative grade point average of B (70.00%). Actual number accepted will be based on qualifications of applicants and existing class size. Applicants are required to possess OAC or equivalent credits in Mathematics, Biology, and English. Upon admission, Fanshawe College students will receive 10.00 transfer credits. A minimum of 10.00 credits must be completed at the University of Guelph. Prospective applicants should contact the Bachelor of Landscape Architecture program counsellor for further information.

Bachelor of Science in Environmental Sciences

The University of Guelph and Fanshawe College have signed an articulation agreement which will place up to ten students graduating from the three year programs in Environmental Technology and Environmental Science Laboratory Technology in the Bachelor of Science in Environmental Sciences program at Guelph. Applicants must have a minimum B+ (75%) grade point average. Successful applicants will receive, upon
admission, ten (10.00) transfer credits. Details of the application process are available from the B.Sc. (Env.) program counsellor's office.

Interested students should contact the program counsellor for further information prior to submitting a formal application for admission.

Georgian College Institute of University Partnerships and Advanced Studies

Bachelor of Commerce-Hotel and Food Administration

The articulation agreement between the University of Guelph and Georgian College Institute of University Partnerships and Advanced Studies makes available up to five places for graduates of the three-year Hotel and Resort Administration program. Successful applicants with a minimum 3.0 (B+) grade point average who have completed an OAC credit or equivalent in Mathematics and English will be admitted with 11.00 transfer credits to the Hotel and Food Administration major of the Bachelor of Commerce program. Interested students should contact the Bachelor of Commerce program counsellor for further information.

Humber College Institute of Technology and Advanced Learning

Bachelor of Commerce-Hotel and Food Administration

The University of Guelph and Humber College Institute of Technology and Advanced Learning have signed an articulation agreement which will allow students graduating from the two-year Hospitality and Restaurant Management program with a minimum 3.0 (B+) grade point average and who have completed an OAC or equivalent Mathematics and English to be admitted to the Hotel and Food Administration major of the Bachelor of Commerce program with 6.00 transfer credits. Up to five places will be made available. Interested students should contact the Bachelor of Commerce program counsellor.

Kemptville College

Bachelor of Commerce-Hotel and Food Administration

Graduates from the two-year Food and Nutrition Diploma program with a minimum grade point average of 3.0 (B+) may apply to transfer to the Hotel and Food Administration major of the Bachelor of Commerce program. Applicants must have completed an OAC credit or equivalent in Mathematics and English. Upon admission up to 6.00 advanced standing credits may be transferred. Interested students should contact the program counsellor for the Bachelor of Commerce program.

La Salle College - Quebec

Bachelor of Commerce-Hotel and Food Administration

The articulation agreement between the University of Guelph and La Salle College makes available up to five places for graduates of the two-year Foodservice and Restaurant Management and the two-year Hotel Management programs. Successful applicants with a minimum 3.0 (B+) grade point average who have completed an OAC or equivalent course in Mathematics and English will be admitted with 7.50 transfer credits to the Hotel and Food Administration major of the Bachelor of Commerce program. Prospective applicants should contact the Bachelor of Commerce program counsellor for further information.

Bachelor of Commerce-Hotel and Food Administration

The articulation agreement between the University of Guelph and La Salle College makes available up to five places for graduates of the three-year Hotel and Restaurant Management program. Successful applicants with a minimum 3.0 (B+) grade point average who have completed an OAC or equivalent course in Mathematics and English will be admitted with 7.50 transfer credits to the Hotel and Food Administration major of the Bachelor of Commerce program. Prospective applicants should contact the Bachelor of Commerce program counsellor for further information.

Loyalist College

Bachelor of Commerce-Hotel and Food Administration

The articulation agreement between the University of Guelph and Loyalist College for the Bachelor of Commerce program for graduates of the bachelor of Commerce, Housing and Real Estate Management major with a 5.0 advanced standing transfer credits. Interested students should contact the Bachelor of Commerce program counsellor for further information.

Niagara College

Bachelor of Commerce-Hotel and Food Administration

The University of Guelph will make up to five places available for admission into the Hotel and Food Administration major of the Bachelor of Commerce program for graduates of the three-year Hospitality program at Niagara College. Applicants must have a minimum 3.0 (B+) grade point average and have completed an OAC credit in Mathematics and English. Upon admission, students will be granted 8.50 transfer credits. Applicants are advised to contact the program counsellor for the Bachelor of Commerce program for additional information.

Nipissing University

The Senate of Nipissing University has committed to admit no fewer than 20 Child Studies graduates from the Bachelor of Applied Science program at the University of Guelph to their Primary/Junior Bachelor of Education program. Applicants must have a minimum overall standing of B in the major. Interested students should contact Nipissing directly about admissions and preferred electives.

Northern Alberta Institute of Technology

The articulation agreement between the University of Guelph and the Northern Alberta Institute of Technology (NAIT) will provide up to six (6) places per year for graduates of the Landscape Architecture program at NAIT, with a minimum cumulative average of B (70%), to be considered for admission to the Bachelor of Landscape Architecture program at the University of Guelph. Applicants are required to possess OAC or equivalent credits in Mathematics, Biology, and English. Upon admission, students will receive 10.00 transfer credits.

Prospective applicants should contact the Bachelor of Landscape Architecture program counsellor for further information.

Province of British Columbia

Bachelor of Commerce - Hotel and Food Administration

The University of Guelph will make available up to ten places annually for admission into the Hotel and Food Administration major of the Bachelor of Commerce program for graduates from the Province of British Columbia's two-year Hospitality Management Diploma programs at Camosun College, College of New Caledonia, University College of the Cariboo, Douglas College, Malaspina University College, North Island College, Okanagan University College, Selkirk College, and Vancouver Community College. Applicants must have a minimum 3.0 (B+) cumulative grade point average and must have completed an OAC or equivalent course in Mathematics and English. Upon admission, students will be granted up to 10.00 transfer credits on the basis of having completed all college core courses as well as specified electives. Interested students should contact the Bachelor of Commerce program counsellor for further information.

Red River College

Bachelor of Commerce - Hotel and Food Administration

The University of Guelph and Red River Community College have signed an articulation agreement which provides an opportunity for the graduates from the two-year Hotel and Restaurant Administration program who have a minimum 3.0 (B+) cumulative grade point average and who have completed an OAC or equivalent course in Mathematics and English to be considered for admission to the Hotel and Food Administration major of the Bachelor of Commerce program with up to 10.00 transfer credits. Interested students should contact the Bachelor of Commerce program counsellor for further information.

Redeemer College

Bachelor of Science

The articulation agreement between the University of Guelph and Redeemer College makes available up to five places annually for students from Redeemer who have completed a minimum of two years of the science program with special emphasis in Chemistry and Biology. Applicants must be recommended by Redeemer College faculty for transfer. Students admitted with 10.00 or more credits from Redeemer may expect to graduate within two calendar years with an honours B.Sc. degree. Interested students should contact either the program counsellor for the College of Physical and Engineering Science or the Chair of the Department of Chemistry and Biochemistry.

Seneca College

Bachelor of Commerce - Hotel and Food Administration

The articulation agreement between the University of Guelph and Seneca College provides an opportunity for graduates from the Travel and Hospitality Option of the Travel and Tourism Studies Diploma program with a minimum grade point average of 3.0 (B+) to be considered for admission to the Bachelor of Commerce program with 3.00 advanced standing transfer credits. Applicants must have completed an OAC or equivalent in Mathematics and English. Prospective applicants should contact the Bachelor of Commerce program counsellor.

Bachelor of Commerce - Housing and Real Estate Management

The articulation agreement between the University of Guelph and Seneca College provides an opportunity for students graduating from the Real Property Administration Diploma Program with a minimum grade point average of 3.5 (B+) to be considered for admission to the Bachelor of Commerce, Housing and Real Estate Management major with a 5.0 advanced standing transfer credits. Applicants must have completed OAC or 12U English and Mathematics (or their equivalent i.e. some college level math and communications courses may be considered to fulfill this requirement.) Prospective applicants should contact the Bachelor of Commerce Program counsellor.
IV. Admission Information, Associate Diploma Programs

**Bachelor of Science**
An articulation agreement with Seneca College enables graduates with a minimum B+ (75%) average, from the following three-year diploma programs, to transfer to the Bachelor of Science program at the University of Guelph with 7.50 transfer credits: Biological Research Technologist, Chemical Technology, Laboratory Technology-Industrial Biotechnology, Pharmaceutical (Chemical) Technology.

Students should contact the program counsellor for the College of Physical and Engineering Science for further information.

**Bachelor of Science in Environmental Sciences**
The articulation agreement between the University of Guelph and Seneca College makes available up to ten (10) places per year for graduates of the three year program, primarily, but not exclusively, from the Cartographic Technology, Ecosystem Management Technology, Fish and Wildlife Technology, Terrain and Water Resources Technology, Geotechnical Engineering Technology, and Minerals Engineering Technology programs. Sir Sanford Fleming College graduates will have the option of entering the Earth and Atmospheric Sciences, Environmental Monitoring and Analysis, Environmental Protection, or Environmetrics majors in the Bachelor of Science in Environmental Sciences degree program.

Candidates require a minimum cumulative grade point average of B+ (75%) to be considered for admission. Applicants must possess the equivalent to OAC Calculus, Chemistry, Biology, and Physics. Upon admission students will be granted 10.00 transfer credits. Prospective applicants should contact the program counsellor for further information regarding choosing a major and degree completion requirements prior to making a formal application for admission.

**Sir Sanford Fleming College**

**Bachelor of Science in Environmental Sciences**
The articulation agreement between the University of Guelph and Sir Sanford Fleming College makes available up to ten (10) places per year for graduates of the three year program, primarily, but not exclusively, from the Cartographic Technology, Ecosystem Management Technology, Fish and Wildlife Technology, Terrain and Water Resources Technology, Geotechnical Engineering Technology, and Minerals Engineering Technology programs. Sir Sanford Fleming College graduates will have the option of entering the Earth and Atmospheric Sciences, Ecology, Environmental Geography, Environmental Protection, or Natural Resources Management majors in the Bachelor of Science in Environmental Sciences degree program.

Candidates require a minimum cumulative grade point average of B+ (75%) to be considered for admission. Applicants must possess the equivalent to OAC Calculus, Chemistry, Biology, and Physics. Upon admission students will be granted 10.00 transfer credits. Prospective applicants should contact the program counsellor for further information regarding choosing a major and degree completion requirements prior to making a formal application for admission.

**Six Nations Polytechnic**
The University of Guelph, along with four other universities, has entered into a partnership with Six Nations Polytechnic in the community of Six Nations to offer first-year transfer credits at any of the universities within the consortium if the student is admitted. Applicants should contact Admission Services about admission requirements and specific transfer credits.

**St. Lawrence College**

**Bachelor of Commerce - Hotel and Food Administration**
The University of Guelph and St. Lawrence College have signed an articulation agreement which will allow students graduating with a minimum 3.0 (B+) grade point average from the two-year Hotel and Restaurant Management program to be admitted to the Hotel and Food Administration major of the Bachelor of Commerce program with 5.00 advanced standing transfer credits. Applicants must have completed an OAC credit or equivalent in Mathematics and English. Interested students should contact the Bachelor of Commerce program counsellor.

**Associate Diploma Programs**
For information on programs offered, the requirements for admission, the procedures to be followed, course descriptions, etc., please view the current Diploma Program Calendar on-line at http://www.uoguelph.ca/diploma_calendar/.

**Communication of Admission Decisions**
Admission Services will use the mailing address and/or email addresses supplied by the applicant to communicate decisions. The University will not be held responsible for decisions sent to these addresses not received.

Applicants who are not currently in any secondary or post-secondary program can normally expect to receive an admission decision within a three to four week period following receipt of the application and all official documents by Admission Services, if they have not applied to a limited enrolment program. All applicants for limited enrolment programs will be considered at the same time in competition for the spaces which are available. These meetings are normally scheduled for the first two weeks in July.

Students currently enrolled in a post-secondary program will normally be required to submit all official transcripts at the conclusion of their program before a decision regarding their admission will be made.

Admission decisions for the Bachelor of Landscape Architecture program and the D.V.M. Program will not be made until after the deadline date for receipt of applications and documentation. Decisions will be communicated to applicants approximately one month after that date.

**Co-operative Education Program**
Students will be considered for admission to semester one of the Co-operative Education program upon completion of the Ontario Secondary School Diploma, including six OACs, grade 12 U and/or grade 12 U or 12M courses (or equivalent). Normally, an average of 70% is the minimum required for consideration, but higher averages may be required for admission to individual programs where the demand for places by qualified applicants exceeds the supply of places. Applicants to the Co-operative Education programs must have Permanent Resident status in Canada or be a Canadian citizen. Applicants who are U.S. citizens should contact Co-operative Education Services.

Specific subject requirements for admission to the various degree programs are outlined following this section. In some cases, applicants may be required to submit a Background Information Sheet in support of their application. If a Background Information Sheet is required, Admission Services will forward the form directly to the applicant upon receipt of the application.

Applicants who are refused admission to Co-operative Education will be considered for admission to the comparable regular degree program. Please refer to Co-operative Education Programs in Section X for further information.

**Deadline Dates - Advanced Standing, Non-Degree and Limited Enrolment Programs**
While the final dates for receipt of applications are listed on the chart below, applicants are advised to submit their applications well in advance of the proposed date of enrolment. The University of Guelph cannot guarantee that applicants submitting applications or supporting documentation after the deadlines will receive admission consideration for the Fall entry point due to space limitations which may exist within programs.

<table>
<thead>
<tr>
<th>PROGRAM &amp; MAJOR FALL SEMESTER</th>
<th>APPLICATION DEADLINE</th>
<th>DOCUMENT DEADLINE</th>
</tr>
</thead>
<tbody>
<tr>
<td>B.L.A.</td>
<td>March 1</td>
<td>May 6 - Portfolio/B.L.S.</td>
</tr>
<tr>
<td>D.V.M.</td>
<td>February 1</td>
<td>May 15 - Transcripts</td>
</tr>
<tr>
<td>Category A - University of Guelph applicants</td>
<td>Cat.A</td>
<td>May 15 - Cat.B</td>
</tr>
<tr>
<td>Category B - External applicants</td>
<td>Cat.B</td>
<td>June 15 - Cat.B</td>
</tr>
<tr>
<td>International</td>
<td>December 1</td>
<td>February 15</td>
</tr>
<tr>
<td>DTM</td>
<td>January 15</td>
<td>February 15</td>
</tr>
<tr>
<td>All other programs and major areas of study</td>
<td>May 1</td>
<td>June 1</td>
</tr>
</tbody>
</table>

**ADMISSION CONSIDERATION CANNOT BE GUARANTEED FOR APPLICATIONS AND FOR DOCUMENTS RECEIVED AFTER THE DEADLINES DUE TO SPACE LIMITATIONS WHICH MAY EXIST WITHIN PROGRAMS.**

**APPLICANTS SHOULD NOTE THAT THESE ARE FIRM DEADLINE DATES AND EXTENSIONS WILL NOT USUALLY BE GRANTED.**

**English Proficiency**
Lectures, seminars and examinations in the University are, for the most part, conducted in English and it is essential that all students have an adequate knowledge of written and spoken English in order for them to be successful in their university studies. Applicants for admission will be required to present evidence of English proficiency if:

1. their primary or first language (meaning the language first learned as a child) is not English; and
2. they have had less than four years of full-time secondary or post-secondary study, demonstrating satisfactory academic progress, in an English-language school system.

Francophone Canadian citizens educated in Canada will not be required to meet the English Language Proficiency Requirement. Students who have completed the International Baccalaureate diploma where English was the language of instruction will be considered as having met the English Proficiency Requirement. The University reserves the right to deny admission to applicants who do not demonstrate satisfactory facility in English, regardless of academic qualifications.

Applicants required to meet the English Proficiency Requirement must do so by submitting the required scores in one of the following tests or battery of tests as outlined in points 1, 2, 3 or 4 to the left. Test results must be submitted to Admission Services prior to admission by the published document deadline.

Last Revision: October 18, 2005
2005-2006 University of Guelph Undergraduate Calendar
1. **Test of English as a Foreign Language (TOEFL)**

600 on the paper based test (250 on the computer test) AND Test of Written English (TWE) - 5 AND Test of Spoken English (TSE) - 50. Applicants with scores 237-249 on the computer-based test will be reviewed on an individual basis.

These tests are offered on several dates each year by centres throughout the world. The TOEFL Bulletin of Information and registration form can be obtained by writing or contacting TOEFL/TSE Publications, P.O. Box 6154 Princeton, New Jersey 08541-6154, USA; telephone (609)771-7100; email toefl@ets.org; Website (http://www.toefl.org/).

2. **International English Language Testing System (IELTS)**

Minimum overall score of 6.5 with no band less than 6. Information on test centres and registration can be obtained from IELTS Administrator, Anglia Polytechnic University, East Road, Cambridge CB1 1PT, Great Britain (telephone (01223) 363271; facsimile(01223) 352973; email j.m.ferra@anglia.ac.uk); http://www.ielts.org/.

3. **The Michigan English Language Assessment Battery (MELAB)**

Minimum overall score of 85 is required, a minimum composition score of 83. In addition, applicants must present a minimum score on the oral test of 3.

Information on the MELAB is available at http://www.lsa.umich.edu/el/iel/melab.htm.

Applicants can request Information Bulletins and Registration forms from English Language Institute, Testing and Certification Division, 3020 North University Building, The University of Michigan, Ann Arbor, Michigan 48109-1057, USA (telephone (734) 763-3452; facsimile(734) 763-0369; Website http://www.lsa.umich.edu/el/).

4. **Canadian Assessment of English Language (CAEL)**

A minimum overall band score of 70 is required. Information on the CAEL is available at http://www.cael.ca/

**Open Learning**

The Open Learning program is an open admission distance-only mode of study program which provides access to university courses for individuals who wish to study independently and who are not interested in pursuing a degree at the present time. This program is designed to extend the academic resources of the University to individuals who wish to take courses for personal enrichment, professional updating or eventual application to a degree program.

No limit applies to the total number of distance education courses taken through Open Learning although students may enrol in a maximum of three (3) courses per semester. Students wishing to apply to transfer from Open Learning to a degree program, should contact Admission Services to obtain admission information specific to the degree program of their choice.

All students must have completed any specific subject requirements, or equivalents, and their academic record must meet the requirements for continuation of studies. The academic record from any previous post-secondary experience will also be considered in determining admissibility. Applicants must also satisfy the English Proficiency requirements as outlined in the following section.

For some programs, performance in specific required courses or portfolios or required background experience, where applicable, may be a consideration for admission. For all programs, where qualified applicants exceed the number of spaces available, admission decisions will be made on a competitive basis.

Individuals wishing to apply to Open Learning should contact the Office of Open Learning for application forms and further information.

**Post Degree and Letter of Permission**

University graduates who wish to enrol in degree courses to upgrade their degree or to gain credit for admission to a graduate or other academic program should apply to a non-degree category (e.g. Non-degree Arts). Applicants must hold a degree which is recognized as equivalent to a Canadian university's undergraduate or graduate degree. A student from another university wishing to register at the University of Guelph to take courses for credit at the home university, must present a Letter of Permission from the Registrar, Dean or program supervisor of the home institution authorizing a program selection. Official university transcripts must also be presented.

All post-degree and Letter of Permission applicants will be required to complete a statement of intent and submit it to Admission Services.

This category is not normally open to applicants who do not meet University of Guelph general regulations for continuation of study outlined under Continuation of Study, Undergraduate Degree Regulations, Section VIII of the Undergraduate Calendar and transfer requirements.

An offer of admission to post-degree or on the basis of Letter of Permission does not imply in any way that space will be available in the course(s) in which the applicant wishes to register. Students should contact Undergraduate Program Services about space availability in their desired courses.

Candidates applying for admission should use an Ontario Universities' Application Centre 105 application form if they have not previously registered at the University of Guelph. Applicants who have previously registered at this institution may obtain the appropriate application form from the University of Guelph website at http://www.uoguelph.ca/admissions/prospective/intransfer/index.shtml. Applicants must apply by the published deadline dates.

Students who register in the non-degree category and who subsequently want to change to a degree status will be required to meet admission requirements for that program, and credit granted for courses taken in the non-degree category will be subject to the regulations pertaining to that program. Students should see their program counsellor for details.

**Second Degrees**

Students from the University of Guelph or from another university may graduate with a second undergraduate degree from the University of Guelph. If they have graduated with their first degree, they must apply for admission to the program for their second degree. A maximum of 10.00 credits may be transferred from the initial degree program. The course content of the second degree program must be substantially different from that of the first. If University of Guelph students apply to graduate with two different degrees at the same convocation, only 10.00 credits may be transferred from the registered program to the undeclared program. Note: A second degree is judged to be substantially different if:

- the specializations are in different subject areas as listed in Section XII--Course Descriptions; or
- the schedule of studies requirements are substantially different (no more than 25% overlap).

**Honours Equivalent**

Students from the University of Guelph or another university may upgrade a degree from the general program to the honours program to obtain an Honours Equivalent recognition. Students may also upgrade a degree from the honours program by the completion of an additional specialization to qualify for the Honours Equivalent recognition. All interested students must apply for admission to the Honours Equivalent program per the application procedures outlined in this section (IV - Application Procedures). All previous University of Guelph credits may be utilized toward the equivalent degree from the honours program.

To be granted an Honours Equivalent, students must satisfy the University of Guelph residence requirements. In addition, students must satisfy the conditions for graduation for the specified honours program using the calendar that is in effect at the time of admission into the continuing category.

The students who are granted the Honours Equivalent designation do not receive a second degree parchment and do not participate in a convocation program, but have the designation shown on their transcript. Graduation standing is not assigned for the Honours Equivalent designation.

**Prior Learning Assessment**

At the University of Guelph, Prior Learning Assessment is an acceptable process for assigning credit at the undergraduate level for learning stemming from experience acquired independently of courses taken at university. PLAs provide a mechanism whereby credit is given for equivalence in a university course to those students who have mastered the content of the course concerned without having taken a formal course in the subject area. Such mastery may have been acquired, for example, through work experience, independent study or from non-degree courses. In the absence of a certificate or other formal acknowledgment of competence by an appropriately accredited institution, the student can challenge the appropriate specific course(s) offered by the University to a maximum of 5.00 credits in a degree program or 30% of the curriculum for Open Learning Certificates. This is a post admission process only.

Each academic department is responsible for determining which of its courses may be subject to PLA challenge. The challenge process could include one or more assessment methods, including standardized tests, written and/or oral examinations, performance evaluations, interviews, and portfolio assessments. These assessments require that the individual demonstrate, to a qualified faculty member, that pre-determined knowledge and skills have been acquired.

Students should contact Undergraduate Program Services (ups@registrar.uoguelph.ca) for application forms and further information.

**Readmission**

Previously registered University of Guelph students must apply to Admission Services for readmission under any of the conditions outlined below. In some cases, applicants may reapply for the Fall entry point only. Applicants should contact Admission Services for details.

1. They were required to withdraw from their program for a period of two or more semesters.
2. They were suspended from the University for academic misconduct.
3. They have graduated from this University and wish to register in order to take additional courses.
4. They registered in a program at another post-secondary institution and wish to return to the University of Guelph.
5. They have not registered at the University of Guelph for six or more consecutive semesters.

http://www.uoguelph.ca/admissions/prospective/intransfer/index.shtml. Applicants must apply by the published deadline dates.
6. They are attending the University of Guelph on a letter of permission and wish to continue past the term of the letter of permission agreement.

Readmission to a program at the University of Guelph is not automatic. Students who are required to withdraw must apply for readmission to the University after completing the minimum two semesters of rustication. Students should consult sub-sections regarding appropriate admission requirements and deadline dates in this Section (IV—Admission Information). Applications for readmission should include a statement which outlines the basis for readmission. Criteria used for readmission may differ by academic program. Students considering readmission should consult with the appropriate program councillor regarding procedures and criteria for readmission to that program.

Students requiring readmission must apply to Admission Services, Office of Registrarial Services, University Centre, Level 3. Applications for readmission must be submitted by the deadline date established for each semester (see Section III—Schedule of Dates). An application fee is payable at the time the application is submitted (see Section VI—Schedule of Fees). On December 19, 1995, the University Senate approved the following policy for the granting of credit while on rustication:

1. Students who have been required to withdraw, and who take university credit courses during their rustication period, will be eligible for up to 1.00 credit (one full-year course) provided they meet the criteria for readmission and the criteria for the transfer of credit.

2. Students who take university courses after the two-semester rustication period may transfer all these credits provided the student meets the criteria for readmission and the criteria for the transfer of credit.

3. Students who have been suspended for academic misconduct will not receive any credit for courses taken during the suspension period.

Note: This policy applies to any university credit course taken during the rustication period, be it distance or on-campus, taken in open learning programs from either our university or at another university.

**Right of Selection**

It should be carefully noted that possession of the minimum requirements does not in itself guarantee admission to any of the programs or specializations offered at the University of Guelph. For all programs for which the number of qualified applicants exceeds the quota, the University reserves the right to select the quota from among the qualified applicants.

For students applying to enter the University for the first time, the decision of the Admissions Committee is final and there shall be no appeal to that decision.

An applicant for readmission may, under specific circumstances, appeal the decision of the Admissions Committee to deny readmission. Refer to Readmission in Section IV—Admission Information.

Applicants are reminded that the University is a dynamic institution and that information pertaining to admission may change. It is the responsibility of the applicant to ascertain admission requirements at the time of application.

For additional admission information, visit the Admission Services website at [http://www.uoguelph.ca/admissions/index.shtml](http://www.uoguelph.ca/admissions/index.shtml)

**Specific Subject Requirements and Recommendations**

### University of Guelph Programs

Specific subject requirements for the following programs offered by the University of Guelph are listed below:

- Bachelor of Applied Science
- Bachelor of Arts
- Bachelor of Arts and Sciences
- Bachelor of Bio-Resource Management
- Bachelor of Commerce
- Bachelor of Computing
- Bachelor of Landscape Architecture
- Bachelor of Science
- Bachelor of Science in Agriculture
- Bachelor of Science in Engineering
- Bachelor of Science in Environmental Sciences
- Bachelor of Science in Technology
- Doctor of Veterinary Medicine

While specific subjects are listed under the new OSS Curriculum, it is expected that some applicants will present both OACs and Grade 12U and 12M courses. Students are advised to avoid course content duplication if they will be presenting courses from both the OAC and OSS curriculum. If two courses are presented which are deemed to be equivalent, only one will be used in calculating the admission average (e.g. OAC Calculus and 12U Advanced Functions and Introductory Calculus). The Non-Academic component of grade 12U/M co-op courses is not accepted as a contribution to admission requirements.

### Bachelor of Applied Science--B.A.Sc.

#### Child, Youth and Family; Gerontology

- New OSS Curriculum: Grade 12U English; 1 credit in 12U Mathematics; 1 credit in 12U Biology or 12U Chemistry; 3 additional 12U or 12M credits.

- OAC Curriculum: Ontario Academic Course Credit Requirements: 1 credit in English I; 1 credit in Mathematics; 1 credit in Chemistry or Biology; 3 additional credits.

#### Applied Human Nutrition

- New OSS Curriculum: Grade 12U English; 1 credit in 12U Mathematics; 1 credit in 12U Biology; 1 credit in 12U Chemistry; 2 additional 12U or 12M credits.

- OAC Curriculum: Ontario Academic Course Credit Requirements: 1 credit in English I; 1 credit in Mathematics; 1 credit in Chemistry; 2 additional credits.

### Recommendations and Notes:

- 1. Applicants are strongly advised to include OAC Calculus or Grade 12 Advanced Functions and Introductory Calculus in their programs of study.

- 2. Students selecting a major in Child, Youth and Family or Gerontology should include Biology at the OAC or Grade 12U level.

### Bachelor of Arts--B.A.

- New OSS Curriculum: Grade 12U English; 5 additional 12U or 12M credits.

- OAC Curriculum: Ontario Academic Course Credit Requirements - 1 credit in English I; 5 additional credits.

### Recommendations and Notes:

- 1. All applicants are strongly encouraged to offer a credit in Mathematics or a credit in French (or other language) among the additional five credits.

- 2. Students planning on entering programs in the Social Sciences, Mathematical Sciences and Computing and Information Science are advised to include one or more Mathematics courses, such as Calculus.

### Bachelor of Arts and Sciences--B.A.S.

- New OSS Curriculum: Grade 12U English; Grade 12 Advanced Functions and Introductory Calculus; 2 Grade 12U credits from Biology, Chemistry, Physics or Geometry and Discrete Mathematics; 1 Grade 12U or 12M Arts or Social Science; 1 additional Grade 12U or 12M credit.

- OAC Curriculum: Ontario Academic Course Credit Requirements: 1 credit in English I; 1 credit in Calculus; 2 credits from Biology, Chemistry, Physics, Algebra and Geometry; 1 credit from Arts/Social Science; 1 additional credit.

### Bachelor of Bio-Resource Management--B.BRM.

- OAC Curriculum: Ontario Academic Course Credit Requirements: 1 credit in OAC English, 5 additional credits.

- OSS Curriculum: Grade 12U English; 5 additional 12U or 12M credits.

1. All applicants are strongly encouraged to offer additional credits in Math, Biology and Chemistry at the OAC or 12U/12M level.

### Bachelor of Commerce--B.Comm.

#### Agricultural Business, Management Economics in Industry and Finance, Marketing Management

- New OSS Curriculum: Grade 12U English; Grade 12 Advanced Functions and Introductory Calculus; 4 additional 12U or 12M credits.

- OAC Curriculum: Ontario Academic Course Credit Requirements: 1 credit in English I; 1 credit in Calculus; 4 additional credits.

### Hotel and Food Administration, Housing and Real Estate Management, Human Resources Management, Public Management, Tourism Management

- New OSS Curriculum: Grade 12U English; 1 credit in Grade 12U Mathematics; 4 additional 12U or 12M credits.

- OAC Curriculum: Ontario Academic Course Credit Requirements: 1 credit in English I; 1 credit in Mathematics; 4 additional credits.

### Recommendations and Notes:

1. Hotel and Food Administration and Tourism Management: Applicants are considered on the basis of academic performance and review of a Background Information Sheet submitted to the Admissions Committee. Any OAC or Grade 12U (or equivalent) mathematics credit is acceptable. The application deadline date for the Hotel and Food Administration and Tourism Management majors is March 1. Late applications may be considered if spaces are available.

2. Marketing Management: If available, students are encouraged to include Economics and/or Administrative or Organizational Studies and/or Accounting among their OAC or Grade 12U or 12M credits.

### Bachelor of Computing--B.Comp.

- New OSS Curriculum: Grade 12U English; Grade 12 Advanced Functions and Introductory Calculus; 4 additional Grade 12U or 12M credits.
Recommendations and Notes:
1. Students are strongly advised to include Chemistry or Physics in their program of studies. Applicants are considered on the basis of academic performance, a review of a Background Information Sheet and portfolio. Application forms must be received by March 1. Please refer to the deadline dates for the Background Information Form, portfolio and transcripts at the end of this chapter under the heading Deadline Dates.

Bachelor of Science in Agriculture--B.Sc. (Agr.)
New OSS Curriculum: Grade 12U English; Grade 12U Advanced Functions and Introductory Calculus; 2 Grade 12U credits from Biology, Chemistry, Physics, or Geometry and Discrete Mathematics; 2 additional 12U or 12M credits.
OAC Curriculum: Ontario Academic Course Credit Requirements: 1 credit in English I; 1 credit in Calculus; 2 credits from Biology, Chemistry, Physics, Algebra and Geometry; 2 additional credits.

Recommendations and Notes:
It is highly recommended that students select one of the two additional credits bearing in mind:
1. Their eventual specialization.
2. Regulation I on Introductory Courses, Section IX-B.Sc. Applicants who lack one specific OAC or Grade 12U requirement but who have a high overall academic standing are encouraged to apply for admission to the Regular program.
3. Students contemplating admission to the D.V.M. Program should follow the OAC or Grade 12U credits: Biology, Physics and Chemistry.
4. Applicants to Biological, Food and Nutritional and Nutraceutical Sciences are advised to include Biology, Chemistry and Physics among their OAC or Grade 12U credits.
5. OAC Algebra & Geometry or Grade 12U Geometry and Discrete Mathematics, Chemistry and Physics are strongly recommended for Mathematical, Computer and Physical Sciences.

Bachelor of Science in Engineering--B.Sc. (Eng.)
New OSS Curriculum: Grade 12U English; Grade 12U Advanced Functions and Introductory Calculus; 2 Grade 12U credits from Biology, Chemistry, Physics, or Geometry and Discrete Mathematics; 2 additional 12U or 12M credits.
OAC Curriculum: Ontario Academic Course Credit Requirements: 1 credit in English I; 1 credit in Calculus; 2 credits from Biology, Chemistry, Physics, Algebra and Geometry; 2 additional credits.

Recommendations and Notes:
1. Students contemplating admission to the D.V.M. Program should present OAC or Grade 12U Physics, Biology and Chemistry.
2. Students who are lacking a specific OAC or Grade 12U subject requirement but who have a high overall academic standing are encouraged to apply for admission.

Bachelor of Science in Technology--B.Sc. (Tech.)
New OSS Curriculum: Grade 12U English; Grade 12U Advanced Functions and Introductory Calculus; 2 Grade 12U credits from Biology, Chemistry, Physics or Geometry and Discrete Mathematics; 2 additional Grade 12U or 12M credits.
OAC Curriculum: Ontario Academic Course Credit Requirements: 1 credit in English I; 1 credit in Calculus; 2 credits from Biology, Chemistry, Physics, Algebra and Geometry; 2 additional credits.

Recommendations and Notes:
1. It is highly recommended that students interested in the Physics and Technology program take OAC Algebra and Geometry or Grade 12 Geometry and Discrete Mathematics and Physics at the OAC or Grade 12 level.
2. It is highly recommended that students interested in the Pharmaceutical Chemistry program take OAC or Grade 12U Chemistry.

Doctor of Veterinary Medicine-D.V.M.
The class size in the Doctor of Veterinary Medicine (D.V.M.) Program is limited to approximately 110 students.

Academic Requirements
For admission to the D.V.M. Program, a minimum of four full-time semesters (10.00 credits), including:
1. Biological Sciences - 1.50 credits (3 semester courses, with recommended emphasis on Animal Biology; one must be a Cell Biology)
2. Mathematics - 0.50 credit (1 semester course)
3. Statistics - 0.50 credit (1 semester course)
4. Humanities or Social Sciences - 1.00 credit* (2 semester courses)

Applicants must complete prerequisite courses while registered on a full-time basis (e.g. University of Guelph 2.50 credits per semester, the equivalent of five half-year courses per semester).

*Students entering the D.V.M. Program should be able to operate across discipline boundaries recognizing the relevance of the humanities and the social sciences to their career choice. In selecting these courses from among those acceptable, the prospective veterinary student should consider topics such as ethics, logic, critical thinking, determinants of human behaviour and human social interaction.

All courses must be at university level. Applicants should consult the list of acceptable University of Guelph courses and subject areas online at http://www.ovc.uoguelph.ca/Undergrad/potential/admission.shtml. Courses need not be completed in a specialized college or faculty or in a designated Pre-Veterinary program. Students wishing to undertake their preparatory work at the University of Guelph should seek admission to the Bachelor of Science or the Bachelor of Science in Agriculture programs. Students who wish to undertake their preparatory work at another university should select an institution that offers the specific course requirements listed above as part of a degree program and that has rigorous entrance requirements and a reputation for academic quality.
Applications will also be considered from persons who have successfully completed a science graduate program and from persons currently enrolled in a science graduate program. For those persons currently enrolled, all the requirements of the program must be successfully completed by August 1st of the year of entry to the D.V.M. Program.

Persons who qualify must indicate their desire to be considered in the graduate student cohort. Their application will then be removed from the undergraduate applicant pool and considered separately. Selection for interviews will be made on the basis of academic achievement including grades in acceptable prerequisite subjects (undergraduate and graduate courses), MCAT scores, evaluation of the Background Information Form, letters of reference from persons assessing the applicant's skills and knowledge of veterinary medicine and two letters of reference for persons familiar with the applicant's performance as a graduate student. Final selection will be based on information and an interview. Normally a maximum of five students may be selected from this cohort each year. Because of limitations in class size, all candidates should have an alternative career objective and course selection should be compatible with this objective.

Credit Requirements
Students contemplating admission to the D.V.M. Program should include 12U English, 12U Biology, Chemistry, and Physics and 12U Advance Functions and Introductory Calculus in their program of studies or it may not be possible to complete the D.V.M. Program admission requirements and courses required for the MCAT during the first two years of university study.

Residence Requirements
Canadian citizens or individuals who have Permanent Resident Status of at least one year's duration. In addition, all domestic applicants must satisfy the Ontario residency requirement. Resident in this context is interpreted to mean someone who has resided in Ontario for twelve months, exclusive of time spent in post-secondary institutions. Consideration will be given to a small number of exceptional applicants who are residents of Quebec.

International Applicants
International students are admitted to the D.V.M. Program. Applicants may not hold Canadian citizenship or permanent resident status in Canada. Normally, a maximum of five international seats will be available in any one year. The application deadline date for international applicants is December 1st, for September entry to the D.V.M. Program.

Selection Criteria
Since the number of applicants who satisfy the specific course requirements exceeds the number of available spaces in the D.V.M. Program, the Admissions Sub-Committee may use the following criteria to determine those who will be admitted. The members of the Sub-Committee endeavour to select those well-qualified applicants who, in their judgment, will be best able to successfully complete the veterinary medicine curriculum and who exhibit potential and the ability to become competent, responsible veterinarians dedicated to a lifetime of productive public service and continued learning. Candidates should pay attention to the selection criteria and attributes required for entry into the D.V.M. Program and use this information to guide them in preparing for application.

1. Academic Achievement and Aptitude
In view of the need to efficiently and quickly learn large amounts of factual material and to solve problems, applicants must have demonstrated achievement in the comprehension of scientific material. This will be evaluated by the scrutiny of transcripts of previous academic records and MCAT results. Attention will be paid to both the quality and consistency of grades in the program presented as preparation for admission, particularly for those applicants who have spent more than the minimal time in preparation. Course selections in an applicant's last two full-time semesters will be reviewed for academic coherence. For the purpose of D.V.M. admissions, a full-time semester will include at least 15 half-year courses [30 credits] from the acceptable list. It is expected that the level of an applicant's courses will correspond to the semester level (year) of his or her program. An applicant who is not following a prescribed program of study may be required to submit an explanation of his or her course selections.

The Medical College Admission Test (MCAT) will be used for selection of domestic applicants. International applicants may submit GRE scores in lieu of MCAT scores. The MCAT may be taken in April or August of each year. The deadline date for receipt of MCAT scores is June 15 of the year of intended admission to the D.V.M. Program. For more information on the MCAT, prospective applicants should contact MCAT Program Office, P.O. Box 4056 Iowa City, Iowa, USA, 52243-4056, telephone (319) 337-1357.

A complete description of the MCAT is contained in the MCAT student manual available from the Association of American Medical Colleges, Dept. 66, Washington, D.C. USA, 20055, telephone (202) 828-0416. The manual presents: areas in science and specific skills to be assessed by test; the mathematical concepts required; general suggestions for preparing for and taking the test; a full-length practice test. Your preparation for the MCAT should begin with a careful reading of the student manual. Note that science topics covered on the test include basic principles and concepts in biology, general chemistry, organic chemistry and physics.

2. Animal and Veterinary Experience
As part of the application process, candidates must demonstrate sufficient knowledge of the profession, its dimensions and the industries it serves to permit the candidate to make and defend his or her career choice. This requires the candidate to spend adequate time under the supervision of veterinarians in clinical practice situations (volunteer or paid) in order to gain hands-on experience with a range of animal species. Practice situations include, but are not limited to, large, small, mixed, avian and exotic animal clinics; thus introducing the applicant to food producing, companion, zoo and wildlife animals, or aquaculture. Other work or volunteer experience with veterinarians can include non-practice situations such as industry (e.g. veterinary products, pharmaceutical), research and academia (universities), and government (e.g. public health, regulatory affairs). There is an expectation that candidates will be able to demonstrate for each animal or veterinary experience the role of the veterinarian, production and breeding systems, general features of housing and feeding, productivity measures and norms, marketing systems, animal behaviour relevant to restraint, feeding and reproduction, and emerging trends and issues in the industry.

3. Background Information and Referees’ Assessments
Successful candidates should have integrity, reliability, maturity and determination. It is important that professionals have excellent communication and leadership skills, and that they have a talent for effectively working with others. To assist in identification of candidates who possess these and other attributes, applicants must complete a Background Information Form, in which they will describe their academic program, work experience and extra-curricular activities. In addition, applicants will be asked to write a short essay about why they wish to study veterinary medicine. Confidential referee reports will be required from three persons qualified to give unbiased, informed, critical assessments of the candidate. There is an expectation that a minimum two of the three references that applicants select will be veterinarians with whom he or she has obtained animal and veterinary experience in the fulfillment of the selection criteria outlined in Section 2.

4. Interviews
Applicants may be invited to an interview. Interviews give candidates an opportunity to display their ability to communicate effectively and give the interviewers an opportunity to assess candidates' aptitudes and attributes applicable to veterinary medicine. Applicants should be prepared to elaborate on statements made in the Background Information Form, to discuss their reasons for choosing veterinary medicine as a career, and to describe what they have done to affirm their career choice and to prepare themselves for admission. They should be prepared to discuss issues pertaining to husbandry, care and welfare of a variety of animal species. Applicants may be asked to describe the duties and responsibilities of veterinarians and the scope of veterinary medicine. All interviews are held at the University of Guelph (no exceptions can be made).

Additional Attributes Required for Entry into the D.V.M. Program
Applicants should be aware that a number of attributes are required for admission to the Program. In addition to those already identified above under Selection Criteria (e.g. academic achievement, academic aptitude, integrity) a number of others, some of which relate to certain University of Guelph Learning Objectives, have been identified. These are presented here to assist prospective candidates in preparing themselves for admission.

1. Literacy and Numeracy
Literate and numeracy are the bases on which all knowledge is founded. The ability to read, write, and calculate are fundamental intellectual tools. Students entering the D.V.M. Program will be able to demonstrate literacy skills at least to the basic level as described under Literacy in the University of Guelph Learning Objectives. They will be able to assimilate and comprehend written language at a basic level, to summarize information in a coherent manner, and use appropriate language in context. Successful applicants must be able to devise a topic or concept for discussion, frame its bounds and communicate its content.

Students entering the D.V.M. Program will understand the value and principles of describing situations in numeric terms. They will be able to assimilate and comprehend numeric data and use appropriate tools to manage such information. They must be able to use skills of numeracy to check validity of information, to use and correctly interpret appropriate statistics to describe the distribution of observations in individuals and populations, and be able to perform basic tests of hypotheses (t-test, chi-square and simple regression) and interpret these correctly.

2. Communication Skills
Communication is the process of interacting with others respectfully and involves an exchange of information, feelings and values. It includes intrapersonal communication (self-understanding, self-evaluation, and reasoning) and interpersonal communication (interaction with others, relationship and self-disclosure). Through interpersonal communication, relationships are started, maintained, or destroyed. Good communication involves an understanding of self-awareness, of self-esteem, of feelings and emotions, the development of listening skills and the willingness to disclose oneself truthfully and freely. Good communication also requires an understanding of principles of language and verbal interaction, principles of non-verbal communication, and of interpersonal communication and relationship development and improvement (of interpersonal communication, conflict management, interviewing skills etc.)

Students entering the D.V.M. Program will be able to: listen respectfully and comprehend appreciatively; practice the elements of good interpersonal communication successfully; demonstrate the ability to work cooperatively; and communicate effectively by oral, written, and electronic means at the basic level of literacy. Successful applicants will be
able to recognize the non-verbal aspects of communication by considering feelings, emotions, and values as elements of communication.

3. Judgment

Students entering the D.V.M. Program will be able to use knowledge, observational and analytical skills, with due consideration of value systems, to evaluate and implement decisions. They will be able to identify and articulate their personal value system; identify ethics and standards of conduct; and identify the values and assumptions that may be operative in various contexts. They must be able to identify, critically evaluate and accept the implications and consequences of decisions, to re-evaluate decisions based on new information, and deal effectively with uncertainty. They will be able to accept that self-assessment of ethics and standards of conduct is a professional responsibility, and accept that others may have different values and assumptions and respect those differences.

4. On-Going Curiosity (self-initiated learning)

Students entering the D.V.M. Program must be able to use self-initiated learning to maintain and enhance depth and breadth of understanding. They must recognize limitations of their knowledge, skills and attitudes, identify sources of ongoing learning opportunities, and demonstrate a commitment to on-going learning and self-evaluation.

5. Forms of Inquiry

Students entering the D.V.M. Program will be able to identify and articulate the strengths and weaknesses, similarities and differences of various forms of inquiry (i.e. those used by the physical scientist, the biological scientist, the social scientist and the scholar of the humanities). They will be able to describe and apply the scientific method, and articulate and evaluate personal problem-solving processes.

6. Technical Skills

Students entering the D.V.M. Program must have observation and motor skills which necessitate the functional use of all senses. Applicants must declare disabilities which might interfere with observation and motor skills and their ability to elicit information by palpation, auscultation, percussion and other diagnostic maneuvers, procedures, or perform general and emergency care of patients.

Application Procedure

Domestic applicants currently registered at the University of Guelph must obtain an internal application for transfer or readmission from Admission Services on-line at http://www.uoguelph.ca/liaison/internal.shtml. All other domestic applicants must apply using the Ontario Universities Application Centre by accessing the computerized applicant service http://compass.ouac.on.ca.

International students should apply through the Veterinary Medical College Application Service (VMCAS). For further details see http://avmrc.org/vmcas/vmcas.htm. Alternatively, international applicants can apply using the University of Guelph International Application found at http://www.uoguelph.ca/admissions/download/index.shtml.

Application Deadline Dates

For Canadian citizens or permanent residents of Canada who satisfy the Ontario residency requirement applying to the first year of the Doctor of Veterinary Medicine Program, application forms must be received no later than January 1. Academic transcripts and other supporting documents must be received no later than June 15. The deadline for International applicants using the VMCAS application is October 1. Those applying directly to the University of Guelph must apply by December 1 and supporting documentation must be submitted by February 1.

Application Limitation

In total, only four applications for admission to the D.V.M. Program will be considered from an individual.

Request for Deferrals

Requests for deferral of admission to the D.V.M. program will not be permitted except on approval by the Admissions Committee due to significant medical, psychological or compassionate reasons.

Admission with Advanced Standing

Applications for admission to advanced semesters will be considered from students who have been enrolled in D.V.M. Programs at other institutions, subject to the availability of places in the D.V.M. Program and the academic standing of the candidate. In no case will admission be considered beyond the fifth semester. When places are available, candidates may be asked to present themselves for interview and may be asked to pass examinations on subject matters in the veterinary curriculum. Applicants are advised that vacancies are rare. The application deadline date for advanced standing applicants is February 1.

Rabies Immunization

A condition of admission to the D.V.M. Program is agreement to a rabies immunization program which includes blood titre evaluation. Exemption from this condition may be granted in exceptional circumstances, but the student concerned must sign a release absolving the University of further liability.

Use of Animals

Live animals may be used for teaching purposes in some courses in the Veterinary Program, and this must be accepted by students admitted to the program. All animals are protected by the Animals for Research Act of Ontario (1980), the Guidelines for the Care and Use of Experimental Animals (Canadian Council on Animal Care), and the Animal Care Policies of the University of Guelph.

University of Guelph-Humber Programs

Specific subject requirements for the following programs offered by University of Guelph-Humber are listed below:

Bachelor of Applied Arts

- Media Studies
- Bachelor of Applied Computing in Distributed Computing and Communication Systems Technology
- Bachelor of Applied Science
  - Early Childhood Services
  - Family and Community Social Services
  - Gerontology
  - Justice Studies
- Bachelor of Business Administration

Bachelor of Applied Arts--B.A.A.

- Media Studies
- Bachelor of Applied Computing in Distributed Computing and Communication Systems Technology--B.A.Comp. (D.C.C.T.)

- The Bachelor of Applied Computing in Distributed Computing and Communication Systems Technology program is an integrated degree-diploma program offered only at the University of Guelph-Humber campus.
- OAC Curriculum: Ontario Academic Course Credit Requirements: 1 credit in English; 5 additional credits.
- New OSS Curriculum: 1 Grade 12U English; 5 additional Grade 12U or 12M credits.

Recommendations and Notes:

- Non-Academic Requirements include an interview, a portfolio evaluation, and a writing test.

Bachelor of Applied Science--B.A.Sc.

- Early Childhood Studies
- OAC Curriculum: Ontario Academic Course Credit Requirements: 1 credit in English; 1 credit in Mathematics; 1 credit in Science; 3 additional credits
- New OSS Curriculum: Grade 12U English; Advanced Functions and Introductory Calculus; 4 additional Grade 12U or Grade 12M credits.

Recommendations and Notes:

- Applicants are strongly advised to include Biology in their program of study.

Family and Community Social Services

- OAC Curriculum: Ontario Academic Course Credit Requirements: 1 credit in English; 1 credit in Mathematics; 4 additional credits
- New OSS Curriculum: Grade 12U English; 1 Grade 12U Mathematics; 3 additional Grade 12U or Grade 12M credits.

Recommendations and Notes:

- Applicants are advised to include Biology among their Grade 12 credits.

Justice Studies

- OAC Curriculum: Ontario Academic Course Credit Requirements: 1 credit in English; 1 credit in Mathematics; 4 additional credits
- New OSS Curriculum: 1 grade 12U English, 1 grade 12U mathematics, 1 Grade 12U Biology or Chemistry; 3 additional grade 12U or grade 12M credits

Recommendations and Notes:

- Applicants are advised to include Biology among their Grade 12 credits.

Bachelor of Business Administration--B.B.A.

- The Bachelor of Business Administration program is an integrated degree-diploma program offered only at the University of Guelph-Humber campus.
- OAC Curriculum: Ontario Academic Course Credit Requirements: 1 credit in English; 1 credit in Mathematics; 4 additional credits.
New OSS Curriculum: Grade 12U English; 1 credit in Grade 12U Mathematics; 4 additional Grade 12 U or Grade 12M credits.

Recommendations and Notes:
Applicants are strongly advised to include Advanced Functions and Introductory Calculus in their program of study.

Submission of Documents
Each of the following applicable documents must be sent in support of an application. Please note that official transcripts submitted will become the property of the University of Guelph. Normally, official transcripts must be sent directly to the University by the institution issuing the document. The applicant is responsible for ensuring that all documents are received in Admission Services by the document deadline. No decision will be made until all documents have been received. Personal documents will be returned. Applications with incomplete documentation after the document deadline date will not receive consideration.

1. Ontario Secondary School Diploma or equivalent Senior Matriculation Certificates, (i.e. Alberta Grade 12, G.C.E. etc.) Students currently enrolled in their final secondary school year in Ontario are not required to submit documentation as decisions for early admission are based on interim grades reported by the secondary school.
2. Birth Certificate (only for students applying under Mature Student Regulation).
3. Official transcripts of all academic work taken at the post secondary level, e.g. university, college, nursing, etc.
4. Transcript of marks from the last secondary school attended.
5. Any other documents demonstrating academic results or ability, or explaining the level of academic performance.
6. Any supplementary information required as part of the application.

Use of Animals in Teaching
Animals are used to support the teaching in some courses. The University of Guelph is dedicated to maintaining a high level of animal care in all of its teaching programs. Regulated by the Animals for Research Act, the University is in compliance with the standards set by the Canadian Council on Animal Care. Guelph has long been a leader in the promotion of animal welfare issues, and in 1989, established the Colonel K.L. Campbell Centre for the Study of Animal Welfare, the first such centre in North America. The Centre promotes humane systems of animal management and fosters the development of alternatives in animal use in research and teaching.
V. International Study

Exchange Programs

A variety of exchange programs exist for undergraduate students who wish to study at an overseas institution for a period of time. Regulations about exchange programs are shown in Exchange Programs of Section VIII—Undergraduate Degree Regulations and Procedures. For further information on any study abroad program, visit the InfoCentre, Centre for International Programs, Level 2, Day Hall. The University of Guelph has official student exchange agreements with the following institutions:

Australia
- Australian International Hotel School
- Curtin University
- Edith Cowan University
- Griffith University
- La Trobe University
- University of Adelaide
- University of Canberra
- University of Sydney

Austria
- Universitat fur BodenKultur Wein (BOKU)
- University of Innsbruck
- Management Centre Innsbruck

Caribbean
- University of the West Indies

England
- Keele University
- Oxford-Brookes University
- Royal Agricultural College
- University of Plymouth

Fiji
- University of the South Pacific

Finland
- Lahti Polytechnic

France
- Ecole Superiervre de Commerce de Poitiers
- le Superieure de Commerce et Management - Tours et Poitier
- Institut d'Etudes Politiques (L'IEP) - Lyon II
- Institutions in the Rhone-Alpes region
- Pierre Mendes University, Grenoble II
- Savoie, Chambery
- University of Monpellier II

Germany
- Christian-Albrechts University of Kiel
- Europa-Universitat Viadrina Frankfurt
- Freiburg University
- Tubingen University
- Ulm University
- Universitat Fridericiana zu Karlsruhe
- Universitat Rostock
- University of Hanover
- University of Heidelberg
- University of Konstanz
- University of Mannheim
- University of Stuttgart

Ghana
- University of Ghana

Hong Kong
- Lingnan University

Iceland
- University of Iceland
- University of Akureyri
- Agricultural College at Holar
- Agricultural College at Hvannseyri

Italy
- Universita Cattolica Del Sacro Cuore
- University of Udine

Malaysia
- Universiti Sains Malaysia

Malta
- University of Malta

Mexico
- Instituto Tecnologico y de Estudios Superiores de Monterrey (ITESM)

Netherlands
- Wageningen University

New Zealand
- Lincoln University
- Massey University
- Waikato University

Norway
- Agricultural University of Norway

Scotland
- Heriot Watt University
- University of Aberdeen
- University of Stirling
- University of Strathclyde

South Africa
- University of Natal

Spain
- University of La Rioja
- University of Malaga

Sweden
- University of Swaziland

Switzerland
- University of Stirling

Sweden
- Swedish University of Agricultural Sciences
- Lund University

USA
- Bowing Green State University
- University of Wisconsin-Madison

International Letter of Permission--L.O.P.

The University of Guelph has established several programs under the Commonwealth Universities Study Abroad Consortium (CUSAC) whereby the University of Guelph students may study overseas on a Letter of Permission. Students participating in these programs pay tuition to the host institution and not to the University of Guelph. The Centre for International Programs administers all CUSAC, LOP programs.

For more information, visit the InfoCentre, Centre for International Programs, Level 2, Day Hall.

Semesters Abroad

Students registered in a Semester Abroad are recognized as University of Guelph students and thus fall under the rules and regulations of the University of Guelph. It should be noted however, that many study abroad semesters involve the employment of sessional faculty from abroad. While every attempt is made to fully inform these faculty of the Senate regulations concerning academic procedures and evaluation of student work, there may be times when appeals by students are not handled in a fashion that would be appropriate under the University of Guelph guidelines. It is therefore recommended that any student who wishes to submit an appeal to Academic Review or request a grade reassessment should first contact the semester abroad coordinator for advice.

It will be the responsibility of the coordinator to refer the matter through the appropriate channels. In some cases this might be to a department chair, in others, through a dean. At all times the University of Guelph's rules and procedures will be adhered to. Given the distance between the University of Guelph and the host institution, the time deadlines in place for processing requests for academic review or grade reassessments will not be enforced. Students studying on an exchange should normally expect to abide by the rules and regulations of the host institution.

The University offers the following semester abroad programs, however, **not all semester abroad programs are offered every year**. Contact the Centre for International Programs, Day Hall, Level 2, for information on current offerings.

B.COMM. Semester in France

The Cannes - La Bocca Semester Abroad in France is a special study-abroad semester offered to approximately 25 students in the Bachelor of Commerce program who have completed at least 7.50 credits. This Fall semester program is offered in even-numbered years. It directs particular attention to international issues in hospitality and tourism, and provides for exploration of the cultural, historical and social resources of the French Riviera, one of the oldest and best known tourist destinations in Europe. The experience is enriched through the inclusion of special field trips and excursions. Further details,
application forms and deadline dates on the program are available through the Centre for International Programs.

**India Semester**

The India semester offers a unique opportunity for up to 20 students to take University of Guelph courses at the University of Rajasthan in Jaipur. The India semester allows students to combine academic pursuits with the exploration of the rich historical and cultural resources of one of the world's oldest civilizations.

**Krakow Semester**

The Guelph/Krakow semester provides the opportunity for up to 20 University of Guelph students to study at Jagiellonian University (the alma mater of Copernicus) for the fall semester. Students, who will have completed 4 semesters with a 70% average, in all undergraduate university programs are encouraged to apply (an association with the Agricultural University in Krakow provides OAC students with a unique opportunity to learn about Polish agriculture). Courses are taught by Polish faculty in English and are accredited at either the 3000 or 4000 level. Survival Polish lessons will be provided. In addition to the experience of living in a Krakow university residence and learning formally and informally about Polish art, culture, history, political systems, etc., there are a number of trips to areas and place of interest in Poland. The semester is co-ordinated by a Guelph faculty member who may also teach a course in Krakow. More detailed information about academic requirements, bursaries, courses, etc. can be obtained from the Centre for International Programs, Day Hall.

**Latin America Semester**

Organized with the University of Saskatchewan, this semester-long academic program in Guatemala offers Spanish-language training and local home stays to complement our humanities and social science courses. In the future, the Latin America Semester may rotate among other countries in the region. For more information, contact Dr. Kris Inwood, Department of Economics.

**London Semester**

Students may take a full-time semester in Britain by going on the London Semester. While the courses offered are in Arts and/or Social Science, all students are eligible to apply. The Senate regulations governing the London semester, application forms, deadline dates, and details concerning the selection of students are available at the Centre for International Programs, Day Hall.

**Nice Program**

Guelph students have many opportunities to enrich their academic French studies through varied programs. They may choose to spend semesters 5 and 6 in Nice, France, with the Canadian Third Year in Nice program (not to be confused with the Université Canadienne en France program), sponsored in part by the University of Guelph. In this program, Guelph students take courses at the University of Nice along with regular French students. Another possibility is spending one or more semesters at a university in Quebec, in which case they are eligible for the monitor program (financial support in exchange for teaching conversational English) as well as several bursaries. Francophone students at Guelph are also eligible for the monitor program, teaching conversational French locally. French Studies graduates may apply to the Canada France Exchange program which allows them to spend one full year in France, teaching conversational English in French high schools, as well as pursuing their studies at a French university if they so wish. For further details, contact the departmental advisor, School of Languages and Literatures, College of Arts.

**Paris Semester**

Up to 25 students may take advantage of this unique semester abroad experience. Courses are taught in English and are offered in the Arts and/or the Social Sciences. All students are eligible to apply. Information, application forms and further details are available from the Centre for International Programs.

**Study Abroad Programs**

University of Guelph study abroad programs consist of two types: semesters abroad and exchange programs.

Semesters abroad offer a structured group experience where a Guelph faculty member accompanies students abroad. Students take Guelph courses and pay tuition to the University of Guelph.

Exchange programs offer students an opportunity to take courses at a university abroad for up to a year and get credit toward their degree at Guelph. In return, students from the host university may study at Guelph. Tuition is paid to the student's home university.

Participants in a University of Guelph study abroad program may qualify for a travel scholarship, see Section IX--Scholarships and Other Awards for details.

For information on these or other work or study abroad options, please contact the Centre for International Programs, Day Hall, Level 2.

**International Field Studies**

International Field Studies Grants are available for students who individually arrange opportunities abroad with supervising faculty. Details and application forms are available from the Centre for International Programs, Day Hall.

Last Revision: October 18, 2005
VI. Schedule of Fees

All fees for a semester are due and payable on or before the date scheduled for registration for that semester.

Provisional registration may be granted to students who make arrangements with the Associate Registrar, Student Financial Services, to defer payment of their University account. Deferred payment normally will be granted only to students who can show proof of financial assistance from O.S.A.P. or other awards which can be confirmed by the University and are not on hand at the commencement of classes through no fault of the student. Students should apply for O.S.A.P. two months in advance of the first class day of each semester, in order that the application can be processed in time to have funds for registration. Cancellation of registration may be exercised at the discretion of the University for failure to complete the registration payment. Registration will be cancelled for students who have not paid or made satisfactory arrangement for payment by the 10th class day of the semester. There is a $200.00 reinstatement fee levied for students wishing to register after the 10th class day. Reinstatement will not be allowed after October 15th for the Fall semester, February 15th for the Winter semester and June 15th for the Summer semester.

Fall Semester Only - Minimum Registration Deposit

ALL students are required to make the minimum, compulsory, non-refundable Registration Deposit of $418.00 prior to the beginning of the Fall semester (please refer to the Schedule of Important Dates on WebAdvisor for the exact date). Payment of this deposit by the deadline date will ensure that the courses selected for the Fall term will be retained. There are no exemptions from the payment of this deposit irrespective of current account balance or funding to come in the future.

Academic sanction may be applied to students who have not made payment, or suitable arrangements for payment, of their University account. Academic sanction will prevent one or more of the following:

- release of examination results
- release of transcripts
- granting of a degree or diploma
- registration for a subsequent semester

Changes in Fee Schedule

The University reserves the right to make changes in the published schedule of fees and payment dates and also to assess charges, which are not included in the schedule of fees, for course material and/or transportation provided at University expense.

Meal Plan Fees

Quoted fees 2004-2005 figures, the 2005-2006 Meal Plan fee will be issued as soon as available from Hospitality Services. The Department of Hospitality Services offers four different sizes of On-Campus Meal Plans. All students living in residence (excluding East Residence and the East Village Townhouses), are required to purchase one of four different on-campus Meal Plans each semester. Unused food dollars from the fall semester will be automatically carried over to your winter semester Meal Plan. By the end of the winter semester, you must use up the food dollar equivalent of two Minimum Meal Plans. Any food dollars over and above the total of two Minimum Meal Plans will be carried over to your next semester.

<table>
<thead>
<tr>
<th>Meal Plan</th>
<th>Per Semester</th>
<th>Annual Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum Plan</td>
<td>$1,265.00</td>
<td>$1,830.00</td>
</tr>
<tr>
<td>Light Plan</td>
<td>$1,480.00</td>
<td></td>
</tr>
<tr>
<td>Full Plan</td>
<td>$1,660.00</td>
<td></td>
</tr>
<tr>
<td>Plus Plan</td>
<td>$1,830.00</td>
<td></td>
</tr>
</tbody>
</table>

All food items purchased on your meal plan are tax exempt. Any student on or off-campus can purchase the above mentioned On Campus Meal Plans. Hospitality Services also provides a convenient, money saving Off-Campus Meal Plan for those students who are not required to purchase an On Campus Meal Plan. For more information on Hospitality’s meal plans visit the Hospitality Services website http://www.hospitality.uoguelph.ca/mealplans.htm. Hospitality Services will honour meal plans visit the Hospitality Services website

Parking Fees

Quoted fees are in effect 2004-2005. The 2005-2006 fee schedule will be issued as soon as available from the Department of Parking Administration. Students wishing to pay for a parking permit are asked to include the appropriate payment in accordance with the following schedule with their total payment submission. Students who comply with this procedure will receive their parking decals in the campus mail prior to the commencement of classes.

<table>
<thead>
<tr>
<th></th>
<th>Per Semester</th>
<th>Annual Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students in residence</td>
<td>N/A</td>
<td>$195.05</td>
</tr>
<tr>
<td>Students off-campus</td>
<td>$99.68</td>
<td>$299.04</td>
</tr>
</tbody>
</table>

Above rates are subject to change.

Prior Learning Assessment

Application Fee

A fee will be charged for each application to challenge a course, irrespective of the number of courses specified in the application.

Course Fee

Students who are permitted to challenge a course will be charged a fee for the course, regardless of whether or not the challenge is successful.

Refunds

Withdrawal

A student who makes a request for Withdrawal from the University may apply to the Office of Registrarial Services for a refund of tuition fees provided the hiatus has been authorized (see also Withdrawal, Section VIII--Undergraduate Degree Regulations). Changes in Fee Schedule

If the withdrawal or credit drop results in a credit balance in your fees account (i.e. payments are greater than charges) a refund cheque is produced. Allow four to six weeks before refunds are available from Student Financial Services. The University has been directed by the Ministry of Training, Colleges and Universities to return refunds to the National Student Loan Centre in instances where assistance was received through a Government Student Loan.

Winter and Summer Semesters - Refunds of tuition fees will be calculated according to the effective date and the following schedule:

<table>
<thead>
<tr>
<th>Class Days</th>
<th>Refund Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 - 5 inclusive</td>
<td>100%</td>
</tr>
<tr>
<td>6 - 10 inclusive</td>
<td>75%</td>
</tr>
<tr>
<td>11 - 15 inclusive</td>
<td>65%</td>
</tr>
<tr>
<td>16 - 20 inclusive</td>
<td>50%</td>
</tr>
<tr>
<td>21 - 25 inclusive</td>
<td>35%</td>
</tr>
<tr>
<td>26 - 30 inclusive</td>
<td>20%</td>
</tr>
<tr>
<td>31 and beyond</td>
<td>nil</td>
</tr>
</tbody>
</table>

Fall Semester - The compulsory non-refundable Registration Deposit of $418.00 is forfeited as the first charge against a withdrawal/cancellation or no show for the semester. The above schedule will only come into effect once the first $418.00 penalty has been used up.

Refunds of Other University Fees (except Residence and Meal Plan Fees) and Student Organization Fees (except Bus Pass, medical insurance premium and dental insurance premium, please see specific details on these fees) will be made in full up to and including the 15th class day of a semester. No refund of Other University Fees or Student Organization Fees will be made after the 15th class day. The effective date for the refund of tuition and fees will be the date on which the student notifies the Office of Registrarial Services regarding the withdrawal.

A registration payment not honoured by your bank does not constitute an official withdrawal from the University.

Room charges will be refunded on a pro rata basis for the period in residence, but cancellation of the residence contract will also result in forfeiture of all or part of the residence deposit. Refer to section 4.3 of the Residence Contract Terms & Conditions for further information. The effective date for refund will be the date belongings are removed from the room, a room check made and the room key, post office key and university ID card returned; or, the authorized effective date for withdrawal, whichever is later. Students to whom a room assignment has been made and who withdraw and subsequently re-register up to and including the 5th class day will be liable for any penalties incurred through forfeiture of the residence contract.

Meals plan fees, excluding the Capital Fund Component, will be refunded on a pro rata basis for the operating expense portion, plus the unused food portion, for authorized cancellation of a contract. The effective date for refunds will be the date on which the student notifies the Office of Registrarial Services regarding the withdrawal, except if a student withdraws before or after the first day of classes and re-registers before or on the 5th day of classes, cancellation of the contract is not permitted.

Bus Pass Fee

This fee is not refundable unless a student withdraws from the university within the first five class days of the semester. Please direct inquiries to the C.S.A. office.

Classification Changes

Refunds of tuition fees for students changing from full-time to part-time will be calculated on the difference of tuition values at the same rates as shown above for tuition for
Co-operative Education
Students must see the Policy Agreement for Student Involvement in Co-operative Education for withdrawal policies. If a student withdraws from co-op within the first 15 days of an Academic Semester, the student will receive a full refund of the co-op fee. Withdrawals after the 15th class day will not be eligible for a fee refund. Students who withdraw or are required to withdraw from a co-operative education program after accepting their second work term will be required to pay all remaining fees.

Dental Insurance Premium
The Dental Plan has an opt-out option. Please contact the Central Student Association office for the opt-out deadline. The fee is not refundable past the deadline.

Dropped Courses
Refunds of tuition fees for courses dropped by part-time students will be calculated at the same rates as shown above for tuition for withdrawals. The effective date for the drop action will be the date such information is reported to the Office of Registrarial Services.

Equipment Fund for D.V.M. Students
The Equipment Fee is refundable during the first 15 class days of the semester to those who do not wish to support the fund. Applications for refund are to be made at the office of the Assistant Dean O.V.C. Refunds and receipts for donations will be remitted before the end of the fall semester.

Equipment Fund for Engineering Students
The Equipment Fund Fee is refundable during the first 15 class days of the semester to those who do not wish to support the fund. Applications for refund are to be made to the School of Engineering.

Medical Insurance Premium
This premium is not refundable unless a student withdraws from the university within the first five class days of the semester. Please direct inquiries to the C.S.A. office.

Student Society Fee for Landscape Architecture Students
Please refer to the Student Society for refund information.

Optional Fees
OPIRG-G is refundable during the first 3 weeks of each semester to those who do not wish to support its activities. Refer to General Information Section of this Calendar. Applications for refund are to be made at the OPIRG-G offices. RADIO GRYPHON fee is refundable during the first 3 weeks of each semester to those who do not wish to support the activities. Applications for refund are to be made at the Radio Gryphon offices. Food Bank Affordable Housing, must approach the CSA office for refund.

Session Courses
In addition to the refund schedule quoted above, there will be a flat fee levied for each session course dropped after the first week of the course. The financial penalty is approximately double the regular course rate penalty.

Residence Fees
Quoted fees are in effect in 2004-2005. The 2005-2006 fee schedule will be issued as soon as available from Student Housing Services.

Single Student Residence

<table>
<thead>
<tr>
<th></th>
<th>Per Month</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single room</td>
<td>$1,987.00</td>
</tr>
<tr>
<td>Double room</td>
<td>$1,808.00</td>
</tr>
<tr>
<td>Single room (suite with shared cooking facilities)</td>
<td>$2,121.00</td>
</tr>
<tr>
<td>Double room (suite with shared cooking facilities)</td>
<td>$1,940.00</td>
</tr>
<tr>
<td>East Townhouse (includes Utility deposit)</td>
<td>$2,415.00</td>
</tr>
</tbody>
</table>

Special University Fees
The following Special University Fees are charged on a user-fee basis as outlined below:

<table>
<thead>
<tr>
<th>Fee</th>
<th>Charge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Account Deferral Fee</td>
<td>$60.00 per occurrence</td>
</tr>
<tr>
<td>B.L.A. Student Society Fee</td>
<td>$50.00 per semester</td>
</tr>
<tr>
<td>Cheque Refusal Fee</td>
<td>$60.00 per cheque or $148.00 or greater upon which payment is refused ((30.00 ) per cheque in the amount of less than $480.00).</td>
</tr>
<tr>
<td>Cheque Processing Fee</td>
<td>$20.00 per occurrence</td>
</tr>
<tr>
<td>Distance Education Resource Fee</td>
<td>$70.00 per D.E. course</td>
</tr>
<tr>
<td>Equipment Fund for D.V.M.</td>
<td>Charged to semester 1,3,5,7 students</td>
</tr>
<tr>
<td>Equipment Fund for B.S.C. (ENG.)</td>
<td>Charged per full-time semester</td>
</tr>
<tr>
<td>Graduation Fee</td>
<td>$30.00</td>
</tr>
<tr>
<td>Late Graduation Fee</td>
<td>$60.00</td>
</tr>
<tr>
<td>Late Registration Fee</td>
<td>$60.00 per occurrence</td>
</tr>
</tbody>
</table>

D.V.M. and Graduate Students in Single Student Residence
Due to the longer D.V.M. winter semester, an increased winter residence rate is applicable to D.V.M. students. Similarly, an increased rate is applicable to graduate students who must remain in residence after the end of the regular winter semester. Students will be informed of the applicable dates, deadlines and charges late in the fall semester or early in the winter semester. A semester for residence purposes will terminate on the residence closing date indicated in the current Residence Contract. Section 6.2.8 of the Residence Contract requires that students vacate their rooms within 24 hours of completion of their final examination. Rates are for unfurnished units and include utilities (except telephone), parking, and satellite TV.

Family Housing

<table>
<thead>
<tr>
<th>Contract</th>
<th>Family Housing Fee</th>
<th>Per Month</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family Housing Fee</td>
<td></td>
<td>$$2,720.00 - 2,950.00</td>
</tr>
<tr>
<td>1 bedroom apartment</td>
<td>$748.00 - 792.00</td>
<td></td>
</tr>
<tr>
<td>2 bedroom apartment</td>
<td>$868.00</td>
<td></td>
</tr>
<tr>
<td>2 bedroom townhouse - College Ave.</td>
<td>$915.00</td>
<td></td>
</tr>
<tr>
<td>2 bedroom townhouse - Wellington Woods</td>
<td>$915.00</td>
<td></td>
</tr>
</tbody>
</table>

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<td>$915.00</td>
<td></td>
</tr>
<tr>
<td>2 bedroom townhouse - Wellington Woods</td>
<td>$915.00</td>
<td></td>
</tr>
</tbody>
</table>
Supplemental Privilege
Students who write supplemental examinations at an outside centre may be required to pay an invigilator fee directly to that centre. Notification of non-payment will result in the withholding of grades.

Note: If the student pays the fee for the supplemental privilege and subsequently chooses not to write it, a refund will be made if the request is submitted in writing at least 15 days prior to the scheduled date of the supplemental to Undergraduate Programs Services, Office of Registrarial Services. No refunds will be made for examinations which were to be written at another university or college under the direction of the student.

University Fees

Tuition Fees
The undermentioned rates are those in effect until April 30, 2005. At the time of printing the 2005-2006 fee schedule had not been determined. The undermentioned tuition fees apply to Canadian students and those with permanent resident status. Students from outside of Canada, who do not have permanent resident status, should consult Visa Student Fees, apply to Canadian students and those with permanent resident status. Students from outside the 2005-2006 fee schedule had not been determined. The undermentioned tuition fees are:

The undermentioned rates are those in effect until April 30, 2005. At the time of printing the 2005-2006 fee schedule had not been determined. The undermentioned tuition fees apply to Canadian students and those with permanent resident status. Students from outside of Canada, who do not have permanent resident status, should consult Visa Student Fees, apply to Canadian students and those with permanent resident status. Students from outside of Canada, who do not have permanent resident status, should consult Visa Student Fees, apply to Canadian students and those with permanent resident status. Students from outside of Canada, who do not have permanent resident status, should consult Visa Student Fees, apply to Canadian students and those with permanent resident status.

Note: For tuition fees for the University of Guelph-Humber please check the University of Guelph-Humber website at http://www.guelphhumber.ca/.

Note: Special or Non-degree full-time students pay the same tuition fee per program as indicated by programs for regular full-time students.

Full-Time Fees - 2.00 credits or more

<table>
<thead>
<tr>
<th>Program</th>
<th>Semester Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bachelor of Applied Science</td>
<td>$2,092.00</td>
</tr>
<tr>
<td>Bachelor of Arts</td>
<td>$2,092.00</td>
</tr>
<tr>
<td>Bachelor of Arts and Science</td>
<td>$2,092.00</td>
</tr>
<tr>
<td>Bachelor of Commerce</td>
<td>$2,092.00</td>
</tr>
<tr>
<td>Bachelor of Computing</td>
<td>$2,092.00</td>
</tr>
<tr>
<td>Bachelor of Landscape Architecture</td>
<td>$2,272.00</td>
</tr>
<tr>
<td>Bachelor of Science</td>
<td>$2,092.00</td>
</tr>
<tr>
<td>Bachelor of Science in Agriculture</td>
<td>$2,092.00</td>
</tr>
<tr>
<td>Bachelor of Science in Engineering</td>
<td>$2,272.00</td>
</tr>
<tr>
<td>Bachelor of Science in Environmental Sciences</td>
<td>$2,092.00</td>
</tr>
<tr>
<td>Bachelor of Science in Technology</td>
<td>$2,092.00</td>
</tr>
<tr>
<td>Doctor of Veterinary Medicine</td>
<td>$2,272.00</td>
</tr>
<tr>
<td>General Studies</td>
<td>$2,092.00</td>
</tr>
</tbody>
</table>

Part-Time Fees - less than 2.00 credits

<table>
<thead>
<tr>
<th>Fee per 0.50 Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuition fee</td>
</tr>
<tr>
<td>Central Student Association fee</td>
</tr>
<tr>
<td>Student Service fee</td>
</tr>
<tr>
<td>University Centre fee</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fee per Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aboriginal Student Association</td>
</tr>
<tr>
<td>Affordable Housing</td>
</tr>
<tr>
<td>Bull Ring</td>
</tr>
<tr>
<td>First Team Response</td>
</tr>
<tr>
<td>Food Bank</td>
</tr>
<tr>
<td>G.S.A.P.</td>
</tr>
<tr>
<td>Guelphbooks.com/Thecannon.ca</td>
</tr>
<tr>
<td>Munford Centre</td>
</tr>
<tr>
<td>OUTLine</td>
</tr>
<tr>
<td>Part-time athletic fee</td>
</tr>
<tr>
<td>Part-time athletic building fee</td>
</tr>
<tr>
<td>Student Health Service fee</td>
</tr>
<tr>
<td>Student bus pass</td>
</tr>
<tr>
<td>W.U.S.C.</td>
</tr>
</tbody>
</table>

Audit Fees
Registration fee per audited course | $247.50

Visa Student Fees
The tuition fee for students from outside of Canada who have obtained a student authorization and visa is as shown below:

<table>
<thead>
<tr>
<th>Program</th>
<th>Full-time Semester Fee</th>
<th>Part-time Fee (per 0.50 credit)</th>
</tr>
</thead>
<tbody>
<tr>
<td>B.A., B.A.S., B.A.SC., B.COMM., B.COMP., B.SC., B.SC. (AGR.), B.SC. (ENV.), B.SC. (TECH.), General Studies</td>
<td>$4,678.00</td>
<td>$937.00</td>
</tr>
<tr>
<td>B.L.A., B.SC. (ENG.)</td>
<td>$6,725.00</td>
<td>$1,345.00</td>
</tr>
<tr>
<td>D.V.M.</td>
<td>$21,457.00</td>
<td>$4,291.00</td>
</tr>
</tbody>
</table>

Health Insurance for International Students
All international students registered at the University of Guelph are required to enrol in the University Health Insurance Plan (UHIP) - participation is compulsory. The 2004-2005 fees are:

<table>
<thead>
<tr>
<th>Visa Per Year</th>
<th>Visa/Exchange Per Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single coverage</td>
<td>$532.85</td>
</tr>
<tr>
<td>Two-person coverage</td>
<td>$1,065.71</td>
</tr>
<tr>
<td>Family coverage</td>
<td>$1,686.65</td>
</tr>
</tbody>
</table>

Students who are studying on student visas and whose immigration status changes, or those who may be eligible for the regular tuition fees but are charged the visa student fees, must present acceptable official documentation to Undergraduate Programs Services, Office of Registrarial Services. To effect a change of fees in a particular semester, the documentation must be presented prior to June 30 (Summer Semester), November 1 (Fall Semester), or February 1 (Winter Semester).

Categories of students who are exempt from paying the visa student fee are synopsized as follows:

- Canadian citizens, permanent residents, or their dependents.
- applicants for permanent residency who submit the appropriate letter.
- diplomatic or consular officers of another country or representatives of the United Nations or its agencies who are stationed in Canada, or their dependents.
- visitors, or their dependents, who are in Canada on an employment authorization.
- refugees (officially recognized).
- members of foreign military forces admitted to Canada under the Visiting Forces Act, and their dependents.

The descriptions above are brief statements synopsized from the regulations of the Ministry of Training, Colleges and Universities. Final interpretation rests with the Office of Registrarial Services and documentation must be acceptable to the Office of Registrarial Services. The regulations are subject to change without notice.

Other Tuition and Incidental Fees

Co-operative Education

<table>
<thead>
<tr>
<th>Fee per Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic Semesters (maximum of 8)</td>
</tr>
<tr>
<td>Work Semesters</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Annual Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dental Plan Premium*</td>
</tr>
<tr>
<td>Medical Insurance Premium*</td>
</tr>
<tr>
<td>Sign Club (Fall semester only)</td>
</tr>
</tbody>
</table>

Note: Students who withdraw or are required to withdraw from the co-op program after accepting their second work term offer of employment will be required to pay all remaining co-op fees.

Exchange Program
Guelph students attending other institutions are required to pay the University of Guelph the cost of full-time tuition and compulsory fees (less the Bus Pass fee). These students are assessed a $75.00 Administration Fee.
Foreign students attending the University of Guelph are required to pay the University Health Insurance premiums shown below (UHIP) as well as the medical insurance premium, and Bus Pass fee.

Semester Abroad Program
Students are required to pay full-time tuition plus the compulsory medical insurance premium and dental plan premium.

Senior Citizens (Canadian Citizens & Permanent Residents only)
Senior citizens, aged 65 years and over as of the first day of the month in which registration for a semester occurs, who are admitted for registration, will be exempt from the payment of tuition, student organization and other fees, with the exception of material costs required for Fine Art and Distance Education courses.

Summer Semester and Summer Session
For classification purposes, any combination of Summer Semester credits (13 week) and Summer Session credits (6 week) that total 2.00 credits or more will constitute full-time enrolment and tuition and other university fees will be charged accordingly.

Other University Fees
These fees are applicable to students registered in 2.00 or more credits. They are compulsory and non refundable.

<table>
<thead>
<tr>
<th>Fee</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Athletic building fee</td>
<td>$31.00</td>
</tr>
<tr>
<td>Athletic fee</td>
<td>$72.34</td>
</tr>
<tr>
<td>Student health service fee</td>
<td>$21.67</td>
</tr>
<tr>
<td>University centre fee*</td>
<td>$11.53</td>
</tr>
<tr>
<td>Student support service fee</td>
<td>$40.00</td>
</tr>
<tr>
<td><strong>Total other university fees</strong></td>
<td><strong>$176.54</strong></td>
</tr>
</tbody>
</table>

*The University Centre Fee is payable at $11.53 per semester to a total of $23.06 for each 12 month period commencing with the Summer Semester. Part-time students are charged $2.30 per 0.50 credit.

Student Organization Fees
Applicable to students registered in 2.00 credits or more. These fees, determined by programs, are collected as a service to the student government to support student organizations, distributed as follows:

<table>
<thead>
<tr>
<th>Organization</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affordable Housing</td>
<td>$0.89</td>
</tr>
<tr>
<td>Aboriginal Student Association</td>
<td>$0.26</td>
</tr>
<tr>
<td>Bull Ring</td>
<td>$1.00</td>
</tr>
<tr>
<td>Canadian Federation of Students</td>
<td>$3.65</td>
</tr>
<tr>
<td>Carousel</td>
<td>$0.50</td>
</tr>
<tr>
<td>Entertainment Media fee</td>
<td>$5.01</td>
</tr>
<tr>
<td>First Response Team</td>
<td>$0.61</td>
</tr>
<tr>
<td>Food Bank</td>
<td>$1.15</td>
</tr>
<tr>
<td>G.S.A.P.</td>
<td>$3.14</td>
</tr>
<tr>
<td>Guelph Queer Equality</td>
<td>$0.22</td>
</tr>
<tr>
<td>Guelphbooks.com/thecannon.ca</td>
<td>$1.05</td>
</tr>
<tr>
<td>G-OPIRG</td>
<td>$5.50</td>
</tr>
<tr>
<td>International Student Organization</td>
<td>$0.50</td>
</tr>
<tr>
<td>Magic Bus</td>
<td>$1.93</td>
</tr>
<tr>
<td>Munford Centre</td>
<td>$0.25</td>
</tr>
<tr>
<td>O.C.U.S.</td>
<td>$0.50</td>
</tr>
<tr>
<td>Ontario Federation of Students</td>
<td>$3.02</td>
</tr>
<tr>
<td>Ontarion</td>
<td>$2.43</td>
</tr>
<tr>
<td>OUTLine</td>
<td>$0.40</td>
</tr>
<tr>
<td>Peak Newspaper</td>
<td>$1.27</td>
</tr>
<tr>
<td>Radio Gryphon</td>
<td>$5.99</td>
</tr>
<tr>
<td>Sign Club (Fall semester only)</td>
<td>$0.26</td>
</tr>
<tr>
<td>Student Bus Pass</td>
<td>$51.55</td>
</tr>
<tr>
<td>University of Guelph Central Student Association</td>
<td>$13.24</td>
</tr>
<tr>
<td>Volunteer Connections</td>
<td>$1.31</td>
</tr>
<tr>
<td>Women's Resource Centre</td>
<td>$1.66</td>
</tr>
<tr>
<td>W.U.S.C.</td>
<td>$0.80</td>
</tr>
</tbody>
</table>

In addition, the Dental Plan annual premium of $149.00 and the Medical Insurance Premium of $102.00 provide coverage for the duration of the semester, whether or not the student withdraws from the University. Married students wishing to have their spouse and/or children insured and students who marry during the semester must apply within 30 days of registration or marriage respectively. See the Central Student Association, UC Level 2 (Room 274). Please refer to your C.S.A. or G.S.A handbook for more details with respect to your student Health Plan.

Colleges Semester Fee

<table>
<thead>
<tr>
<th>College</th>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arts</td>
<td>$8.00</td>
</tr>
<tr>
<td>Biological Science</td>
<td>$8.50</td>
</tr>
<tr>
<td>Physical Science</td>
<td>$8.00</td>
</tr>
<tr>
<td>Physical Science (Engineering)</td>
<td>$12.00</td>
</tr>
<tr>
<td>Ontario Agricultural College</td>
<td>$10.00</td>
</tr>
<tr>
<td>Ontario Veterinary College</td>
<td>$10.00</td>
</tr>
<tr>
<td>Social and Applied Human Sciences</td>
<td>$6.00</td>
</tr>
</tbody>
</table>

Last Revision: October 18, 2005
VII. Academic Advising

A university education is a complex and multi-faceted experience, which is best undertaken in a supportive and encouraging environment. As part of its dedication to student success, the University of Guelph is committed to providing high-quality academic advising, in order to assist students in the development and pursuit of academic objectives consistent with their life goals and the available opportunities at the University. The responsibility for developing educational plans and setting goals rests with the student. Academic advising contributes to this process by identifying alternatives, exploring likely outcomes, and referring students to appropriate resources.

Academic advising at Guelph is delivered by a team which includes faculty advisors, program counsellors, the Undergraduate Academic Information Centre, the Associate Vice-President Academic and others. Coordinating all activity is the University Council on Undergraduate Academic Advising (CUAA), which has responsibility for overall advising systems direction and policy. The Undergraduate Academic Information Centre provides general walk-in assistance to students and, as appropriate, directs students to specialized advising resources. Each student has direct access to Faculty Advisors, who focus on subject-related issues and advice, and a Program Counsellor, who assists with degree program requirements and expectations.

These components of the academic advising system work together to achieve goals and objectives that include:

- helping students develop an educational plan and choose an appropriate course of studies to meet their academic and life objectives
- ensuring that students are aware of opportunities and resources that can assist students in achieving their educational goals
- assisting students in interpreting university policies and procedures, and applying general rules to their specific cases
- facilitating resolution of academic problems, conflicts and concerns, as appropriate
- referring students as necessary to other resource units
- collecting and disseminating information on student needs, wants, perceptions, and trends in order to enhance institutional effectiveness and adaptability

Within the system, specific roles and responsibilities are distributed as indicated below:

Students

Responsibilities of the Student

Students admitted to the University are responsible for understanding and meeting certain responsibilities regarding Undergraduate Degree Regulations and Procedures, degree requirements, course requirements, Schedule of Dates, rules of conduct and accessing the University of Guelph email account. These responsibilities are described in Section I of the Undergraduate Calendar.

The responsibilities of students regarding academic advising are:

- to seek when necessary information from the Undergraduate Academic Information Centre, as well as advice and assistance regarding academics from the program counsellor or faculty advisor.
- to contact the program counsellor or faculty advisor for clarification of regulations and procedures.

Faculty Advisors

Most undergraduate degree programs have a faculty advisor for each of their specializations. A contact list for current faculty advisors is available on the Undergraduate Academic Information Centre website at http://www.uoguelph.ca/uaic/students_faculty.shtml.

Role of the Faculty Advisor

The faculty advisor has particular expertise in the program specialization (major, minor, area of concentration, area of emphasis) and the fit of that specialization within the degree program. The role of the faculty advisor is:

- to provide information about the academic requirements of the specialization, including eligibility to declare the specialization and graduation requirements
- to refer to other campus services, as necessary
- to communicate information about the specialization to the department and the curriculum committee, program committee, and program counsellor, and to bring forward any concerns or issues as students progress through the Schedule of Studies for the specialization
- to liaise with the program counsellor for the degree program, in order to provide information about the specialization as it fits within the degree program

Responsibilities of the Faculty Advisor

The responsibilities of the faculty advisor are:

- to be familiar with the academic requirements of the specialization, including eligibility to declare the specialization and graduation requirements
- to assist students wishing to change or add specializations
- to ensure that students are aware of opportunities and resources that can assist students in achieving their educational goals
- to assist students in interpreting university policies and procedures, and applying general rules to their specific cases
- to facilitate resolution of academic problems, conflicts and concerns, as appropriate
- to refer students as necessary to other resource units
- to collect and disseminate information on student needs, wants, perceptions, and trends in order to enhance institutional effectiveness and adaptability
- to provide information about the academic requirements of the degree program and its specializations, including admission requirements, Schedule of Studies requirements, Continuation of Study requirements, and graduation requirements
- to refer to other campus services, as necessary
- to communicate information about the degree program to the dean, chairs and directors, faculty advisors, curriculum committees, program committees (and their sub-committees); and to bring forward any concerns or issues as students progress through the Schedule of Studies for the degree program
- to liaise with the faculty advisor for the specialization, in order to provide information about the degree program and the fit of the specialization within the degree program
- to provide relevant information to the faculty advisors, departments, dean, curriculum and program committees (and sub-committees) about student issues with the degree program
- to participate at liaison events, as requested
- to assist with graduation checks, as requested
- to approve substitutions or exemptions for the specialization
- to be aware of career and graduate study opportunities related to the field of study, or refer appropriately
- to assist with course selection issues related to the specialization
- to provide information to the department, curriculum committee, program committee, and program counsellor about issues or concerns concerning the Schedule of Studies for the specialization
- to provide information and advice to the department and college, as requested, around enrolment management issues

Program Counsellors

All undergraduate degree programs have a program counsellor. A contact list for current program counsellors is available on the Undergraduate Academic Information Centre website at http://www.uoguelph.ca/uaic/students_counsellors.shtml.

Role of the Program Counsellor

The Program Counsellor has particular expertise in the degree program requirements and regulations, as well as the various specializations and their fit within the degree program.

The Program Counsellor is also familiar with the policies and procedures that govern university practice. The role of the program counsellor is:

- to provide information about the academic requirements of the degree program, including admission requirements, Schedule of Studies requirements, Continuation of Study requirements, and graduation requirements
- to refer to other campus services, as necessary
- to communicate information about the degree program to the dean, chairs and directors, faculty advisors, curriculum committees, program committees (and their sub-committees); and to bring forward any concerns or issues as students progress through the Schedule of Studies for the degree program
- to liaise with the faculty advisor for the specialization, in order to provide information about the degree program and the fit of the specialization within the degree program
- to assist with graduation checks, as requested
- to sign program approval, as appropriate
- to change student type, as appropriate
- to meet with students as requested, or required
- to refer to the faculty advisor, as appropriate
- to help interpret the academic policies and procedures to students, staff, and faculty
- to act as a source of referral to other campus services
- to be generally aware of career and graduate study opportunities related to the field of study, or refer appropriately
- to work closely with the faculty advisor on any changes to the Schedule of Studies
- to consult, as necessary, with other campus services
- to provide relevant information to the faculty advisors, departments, dean, curriculum and program committees (and sub-committees) about student issues with the degree program
- to participate at liaison events, as requested

The Undergraduate Academic Information Centre

The role of the Undergraduate Academic Information Centre (UAIC) is to provide general academic advising information and advice to undergraduate students. This includes
appropriate referral to the program counsellor, or faculty advisor, as well as other support services on campus.

For some students, the Centre may function as a first point of contact for information or advice about academic program issues. Centre staff operate on an assessment and referral system - first helping the student to identify the problem or issue, and then, as necessary, referring her/him to the appropriate resource (e.g. program counselling office, faculty / specialization advisor, Career Services, Financial Services, etc.).

At the Centre, students will find general information on transfer requirements and procedures; Continuation of Study requirements; admission and graduation requirements; information about appeal process and procedures; help with interpreting the calendar; or help with different forms. Students who require more detailed information about their particular degree program requirements, or who have more specific questions about changing or adding a specialization, or transfer to a different degree program will be directed to the program counselling office or to the faculty advisor, as appropriate.

UAIC is a resource for all students, with particular sensitivity to issues facing transfer (advanced standing) students, non-degree and general studies students, and "undecided"* students, including first year students or other students contemplating a change in program.

* Although most University of Guelph students declare a major upon entry, "undecided" in this context refers to students who may be declared in a major but are now not sure whether the program is the right fit for their educational, career, or life goals.

The Council on Undergraduate Academic Advising

The role of the Council on Undergraduate Academic Advising (CUAA) is to develop, review, discuss, and recommend to senior administration on an ongoing basis any and all advising-related strategies, policies, and processes.

The CUAA is responsible for managing and directing academic advising policies at the university. The CUAA reports to, and is chaired by the Associate Vice-President Academic. Membership includes broad representation from stakeholders across the university community including, but not limited to: program counsellors, faculty advisors, Office of Registrarial Services, Coordinator of Undergraduate Curriculum, deans, chairs, Student Affairs, Office of Open Learning/SCOL, undergraduate students, Centre for International Programs, and the Coordinator of the Undergraduate Academic Information Centre. The Council normally meets once per semester.

The CUAA develops strategic directions and formulates policy on advising issues, coordinates planning around academic advising issues, and serves as a permanent communication channel to help coordinate the work of the various individuals and entities engaged in academic advising activities.

Interpretation of University Academic Regulations

A student who requires assistance in the interpretation of the academic regulations of the University or the method of their application in reference to the student's particular circumstances should consult one of the Associate Registrars (Office of Registrarial Services, Level 3, University Centre), their Program Counsellor, or the Undergraduate Academic Information Centre.

Non-Academic Counselling

Students are advised to consult the Counselling-Student Development Centre sub-section in Section XIV--General Information in this Calendar, for information on the types and locations of non-academic counselling offered by the University.

Program Approval

Students should present their Academic Evaluation Report plus any updates when seeking academic advice. Approval is required if:

1. Most students who wish to register for more than 2.75 credits prior to the last day of an add period require program counsellor approval (some degree programs are exempt from the 2.75 maximum). On the last day of an add period all students can register in up to 3.25 credits in a semester without obtaining program counsellor approval.

2. Students who wish to make a change to their specialization (i.e. major, minor, area of concentration) must complete an Undergraduate Schedule of Studies Change Request form. Once the form has been completed the student must obtain the signature of the faculty advisor for that specialization prior to obtaining the signature of the program counsellor for the degree program.
VIII. Undergraduate Degree Regulations and Procedures

General Information

The academic regulations outlined in VIII--Undergraduate Degree Regulations and Academic Consideration, Appeals and Petitions are the basic regulations for undergraduate degree programs of the University as approved by the Senate. Terminology used to describe academic regulations is defined in the Glossary. In these regulations where the consent of the dean is required, the term "dean" is interpreted to mean the person responsible for the academic program, for example, dean, director, chair of program committee, or the program counsellor in a particular degree program.

Process for Academic Consideration and Appeals

<table>
<thead>
<tr>
<th>Time of Semester</th>
<th>Type of Consideration</th>
<th>Consideration Granted By</th>
<th>Period of Consideration</th>
<th>Subsequent Appeal To</th>
</tr>
</thead>
<tbody>
<tr>
<td>During the Semester (up to course grade submission deadline)</td>
<td>Medical Psychological Compassionate</td>
<td>Instructor</td>
<td>Same semester</td>
<td>Academic Review Sub-Committee Submitted as soon as possible, not later than the end of the following semester</td>
</tr>
<tr>
<td>End of Semester (following course grade submission deadline)</td>
<td>Medical Psychological Compassionate</td>
<td>Academic Review Sub-Committee (consult with program counsellor)</td>
<td>Should be submitted as soon as possible</td>
<td>Petitions Committee 90 day deadline for appeals of academic review decisions</td>
</tr>
<tr>
<td>After the Semester</td>
<td>Grade Reassessment:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Calculation Error or omission</td>
<td>Instructor</td>
<td>10 class days of the following semester</td>
<td>No appeal</td>
<td></td>
</tr>
<tr>
<td>Methods and Criteria</td>
<td>Department Chair</td>
<td>10 class days of the following semester</td>
<td>Petitions Committee 10 days after decision of chair</td>
<td></td>
</tr>
<tr>
<td>Misapplication of an Academic Regulation</td>
<td>Instructor</td>
<td>Should be initiated as soon as possible</td>
<td>First Level: Department Chair Second Level: College Dean Third Level: Provost</td>
<td></td>
</tr>
<tr>
<td>Academic Consideration:</td>
<td>Course Results: Compassionate Medical Psychological</td>
<td>Academic Review Sub-Committee (consult with program counsellor)</td>
<td>No deadline, but a request should be submitted during or immediately after the semester</td>
<td>Petitions Committee 90 day deadline for appeals of academic review decisions</td>
</tr>
<tr>
<td>Request for Probationary Status</td>
<td>Academic Review Sub-Committee (consult with program counsellor)</td>
<td>Should be submitted by the first deadline of the next semester</td>
<td>Petitions Committee 90 day deadline for appeals of academic review decisions</td>
<td></td>
</tr>
</tbody>
</table>

General Information for Academic Consideration and Appeals

The University of Guelph is committed to supporting students in their learning experiences and responding to their individual needs. To this end a broad network of advising, counselling, and support services is provided to assist students in meeting their personal and academic goals. The University is aware that a variety of situations or events beyond the student's control may affect academic performance. Support is provided to accommodate academic needs in the face of personal difficulties or unforeseen events. Procedures for academic appeals are designed to ensure that every effort is made at these times to provide appropriate accommodation and consideration, thus enabling students to complete course and program requirements as quickly as possible.

Knowledge of the procedures, early action on the student's part, timely consultation with the instructor(s) and/or program counsellor, and immediate provision of any required documentation will facilitate a prompt, co-ordinated institutional response.

Academic Consideration

The University will consider granting consideration for courses if there are sufficient extenuating medical, psychological or compassionate circumstances. Academic Consideration may take the form of an extended deadline, a deferred privilege, a late drop of a course(s) with or without failure, withdrawal from a semester with or without academic failure, or permission to continue on probationary status. A deferred privilege could take the form of approval to write a missed final examination or the completion of a course requirement after the end of the semester. Academic consideration is granted when acceptable medical, psychological or compassionate circumstances affect any portion of the semester work. Generally, work commitments will not constitute grounds for academic consideration. Depending upon the circumstances and whether the semester work is complete, consideration may be granted by the instructor, the program counsellor or the Academic Review Sub-Committee of the program in which the student is registered. Students will need to assess the extent of the difficulty they face and the possible implications on their course work. For instance, an illness which lasts one or two days resulting in a missed deadline can usually be resolved between the faculty member and the student, often without documentation. Circumstances which affect the student's ability to attend classes, write term tests or meet assignment deadlines for an extended period of time may require more formal documentation and consideration. Students are encouraged to seek documentation if the situation extends for a significant length of time. The program counsellor, who is the dean's designate, should be contacted regarding appropriate procedures and documentation.

The program counsellor is the student's advisor in all matters pertaining to academic consideration and can assist in defining an appropriate course of action (counsellor names and locations can be found in Section VII--Academic Counselling). It is the student's responsibility to consult the program counsellor as soon as extenuating circumstances affect academic performance, in order to initiate action, and provide any required documentation. All available evidence, including the student's performance during the semester, will be given careful consideration when making a decision. Procedures to follow in each case are outlined below. Questions about procedures and deadlines should be directed to the program counsellor.

Academic Consideration Form
Grounds for Academic Consideration
Incomplete Course Work
Academic Review
Co-operative Education Appeal Process
Petitions

Grounds for Academic Consideration

Where possible, requests for academic consideration are to be accompanied by supporting documentation. Students unsure of documentation requirements are encouraged to contact their program counsellor.

1. Medical Grounds

For academic consideration based on medical grounds a student may be asked to provide documentation for the period of the illness. The necessity for documentation will depend in part upon the length of the illness and the amount of work missed during this time. Such documentation will always be required in the event of a request for consideration beyond the grade submission deadline for the course. If the medical situation results in missed semester work, the student should contact the instructor, presenting medical documentation where warranted. If the absence due to illness is of a duration that will affect a number of courses or completion of the semester's work, the student must contact the program counsellor for advice and consideration.

When the absence affects final examinations or final assignments the student should go to Student Health Services or a personal physician for documentation. The student must present the medical documentation to the program counsellor.

2. Psychological Grounds

For academic consideration based on psychological grounds the student may be asked to provide documentation for the period affected. The necessity for documentation will depend in part upon the length of the problem and the amount of work missed during this
time. Such documentation will always be required in the event of a request for consideration beyond the grade submission deadline for the course. The student should submit this documentation to the program counsellor who will then advise the instructor of the need for consideration. If the difficulty is of a duration that will affect a number of courses or completion of the semester's work, the student must contact the program counsellor for advice and consideration.

3. Compassionate Grounds

Unforeseen circumstances beyond the student's control in either his/her personal or family life may affect academic performance. The procedure to follow to request academic consideration based on compassionate grounds depends upon the severity of the circumstance and the amount of work missed. Students may wish to contact the instructor for consideration for missed work resulting from a compassionate circumstance. If the circumstance is more significant, or if the consideration sought will go beyond the grade submission deadline for the course, the student must consult with the program counsellor. Generally, work commitments will not constitute grounds for academic consideration.

Incomplete Course Work

Instructors are responsible for granting academic consideration, if applicable, for course work up to the grade submission deadline for the course. Types of consideration that may be granted by an instructor include the setting of a make-up test, re-weighting the value of course assignments, extending a deadline or allowing the resubmission of an assignment (up to the grade submission deadline for the course). Students should consult with their program counsellor for advice on an appropriate course of action if:

a. the student feels that appropriate consideration has not been granted by the instructor,

b. if the medical, psychological or compassionate circumstance is such that it could affect overall semester performance or the ability to meet the course grade submission deadline.

Student's Responsibilities

If due to medical, psychological or compassionate circumstances a student is unable to complete any portion of the course's work the student should:

1. Inform the instructor-in-charge of the course in writing.
2. If the instructor requests it, supply documentation. If documentation is unavailable, consult your program counsellor.
3. Complete and submit missed work by the new deadline established by the instructor.
4. Consult with the program counsellor if circumstances warrant (see a) and b) above).

In the event that medical, psychological or compassionate circumstances are such that it could affect overall semester performance or the ability to meet the course grade submission deadline, the program counsellor should be consulted regarding an appropriate course of action.

Instructor's Responsibilities

Faculty members should exercise discretion when requiring documentation, particularly when the assessment in question constitutes a small proportion of the grade, or when alternative means for carrying out the assessment are available.

The Board of Undergraduate Studies recommends that faculty make every effort to accommodate students representing the University in extracurricular activities when there is a conflict between those activities and the requirements of the course.

If the student does not submit all of the required work by the course grade submission deadline, the instructor shall refer the situation to the Academic Review Sub-Committee.

The instructor cannot grant extensions beyond the final date for submission of grades for the course.

Program Counsellor's Responsibilities

If the student and the instructor cannot arrive at a mutually agreeable accommodation to complete course requirements prior to the course grade submission deadline, the program counsellor may act as a mediator. The program counsellor may discuss the issue with the department chair if appropriate.

In the event that medical, psychological or compassionate circumstances are affecting the student's overall performance, the program counsellor will ensure that the student's instructors are advised that academic consideration based on medical or compassionate grounds is warranted. In such cases the program counsellor may be of assistance in co-ordinating instructors' responses to the request for consideration.

Academic Review

If final examinations, term assignments, projects, work term reports or other course requirements are not completed by the course grade submission deadline, academic consideration is not the responsibility of the faculty member but rather, the responsibility of the Academic Review Sub-Committee of the program in which the student is registered. A request for academic consideration should be made to the Academic Review Sub-Committee during, or immediately after, the semester to which it refers.

A request to change an earlier decision of the Academic Review Sub-Committee may be made only on the basis of relevant information not previously submitted. Students wishing to resubmit a "Request for Academic Consideration" form with additional supporting documentation should consult their program counsellor. Students who believe that the decision of the Academic Review Sub-Committee is inappropriate may appeal the decision to the Senate Committee on Student Petitions within 90 days of the academic review decision (see Petitions). The Senate Committee will not normally consider any appeals submitted past this deadline.

Student's Responsibilities

If due to medical, psychological or compassionate circumstances the student is unable to complete a final requirement of the course by the course grade submission deadline and wishes academic consideration, the student should:

1. Consult with the program counsellor for advice on the appropriate consideration that should be requested.
2. Submit a request for consideration on the "Request for Academic Consideration" form available from Undergraduate Program Services, Office of Registrarial Services or the program counsellor. Deadlines for Academic Review Sub-Committee meetings can be found in Section III--Schedule of Dates.

Instructor's Responsibilities

In a case where a student has not completed course requirements by the course grade submission deadline, the instructor shall complete the "Instructor's Recommendation" form recommending that the student be granted one of:

1. a passing grade
2. credit standing
3. a deferred privilege
4. a grade reflective of work completed to date

A grade reflective of work completed to date 1, 2, or 3 will only be granted by the Academic Review Sub-Committee if the medical evidence or compassionate reasons have been verified and accepted. 4 will be granted if the medical or compassionate circumstances presented are inadequate or insufficiently documented. The instructor should include with the Instructor's Recommendation Form any documentation provided to the instructor by the student in support of the academic consideration request.

A student who receives credit standing will receive credit in the course without a numerical grade. This course will not be included in the student's overall average or specialization average.

A deferred privilege could be approval to write an examination and/or to submit an assignment(s). Deferred privileges are normally required to be completed early in the following semester, refer to Section III--Schedule of Dates. The Schedules Section, Office of Registrarial Services, will inform the student of the deadline for the deferred privilege (see Deferred Privilege).

If, on the basis of acceptable medical, psychological or compassionate documentation a numerical passing grade or credit standing is granted rather than a deferred privilege, the student may request the deferred privilege. The request must be submitted in writing to Undergraduate Program Services, Office of Registrarial Services, by the end of the add period for the following semester.

Co-operative Education Appeal Process

The Co-operative Education program requires that a student achieve an overall average of 70 percent during first year in order to continue in the program. An appeal option is available to students who are removed from co-op for not meeting the requirement. The appeal must be taken to the Program Counsellor who will then take it to the Academic Review Committee for consideration.

Petitions

The Senate Committee on Student Petitions is comprised of students, faculty and a representative of the Office of Registrarial Services. It is responsible for assessing and disposing of cases submitted to it by any undergraduate or graduate student of the University. The Senate Committee on Student Petitions will consider petitions and conduct hearings on requests which fall under one of the following:

1. Appeals of decisions of Academic Review Sub-Committees involving medical, psychological or compassionate grounds. Petitions have the same options for consideration available to it as the Academic Review Sub-Committee (see Academic Consideration).
2. Appeals of academic misconduct decisions.
3. Petitions concerning the methods and criteria used by an instructor in assigning a grade. The Committee does not consider appeals for grade reassessment unless the request concerns the methods and criteria used by the instructor.
4. Appeals of an Admissions Committee decision regarding readmission to a program. The Committee will consider appeals concerning readmission provided the appeal is on the grounds of procedural unfairness or bias on the part of the Admissions Committee.

Petitions Concerning a Course Grade(s) Involving Medical, Psychological or Compassionate Grounds

A student may appeal any decision of the Academic Review Sub-Committee to Petitions. The appeal must be submitted to the Office of the Judicial Officer within 90 days of receiving notification of the decision. Requests submitted after this deadline will not normally be considered.

Students should speak to the Judicial Officer before submitting a petition to ensure proper completion of the form.
The Committee will not normally consider a petition concerning an illness or incident that occurred at some time in the past unless there is a reasonable explanation for the delay in submitting the petition.

**Petitions Concerning Methods and Criteria Used by an Instructor in Assigning a Course Grade**

Before submitting such a petition the student must have submitted a written appeal to the chair of the department of the instructor assigning the course grade and have received from the chair of the department a written statement that every effort has been made at the department level to resolve the issue. The student must provide the Judicial Officer with a clear and concise statement of the allegations.

**Academic Accommodation of Religious Obligations**

The University acknowledges the pluralistic nature of the graduate and undergraduate communities and that accommodation will be made to students who experience a conflict between a religious obligation and scheduled tests, mid-term examinations, final examinations, or requirements to attend classes and participate in laboratories. The type of accommodation granted will vary depending on the nature, weight and timing of the work for which accommodation is sought. Accordingly, the request for alternative arrangements normally must be submitted to the instructor in charge of the course within two weeks of the distribution of the course outline. A student requiring accommodation may submit the request to the instructor directly or through his/her program counsellor. The instructor has a responsibility to provide reasonable alternative arrangements that do not put the student at an academic disadvantage. In the case of a conflict with a final examination, the instructor should reschedule the examination to another time during the examination period taking care that the new date and time does not put the student at an academic disadvantage.

In the event that a student is not satisfied with the accommodation offered by the instructor, he/she may appeal to the Department Chair, or Director of the School, who may grant alternative accommodation. A student who remains dissatisfied with the outcome of his/her request may seek the assistance of the Human Rights and Equity Office to facilitate a resolution.

For a current list of major holy days, please check the following website http://www.uoguelph.ca/hr/hr/hrholidays.shtml or contact the Human Rights and Equity Office.

**Academic Load**

**Full-time**

The normal full-time semester load for academic programs is 2.50 credits except where otherwise prescribed by the schedule of studies.

Under the credit system, credit weight reflects student workload rather than contact hours. Students should note that 10 to 12 hours of academic time and effort per week (including classes) are expected for a 0.50 credit course. Exceeding the normal credit load for the program can place the student at academic risk and should be carefully considered in consultation with the Program Counsellor.

**Part-time**

A student who is registered in fewer than 2.00 credits in a semester is considered to be part-time.

**Academic Misconduct**

Academic misconduct is behaviour that erodes the basis of mutual trust on which scholarly exchanges commonly rest, undermines the University’s exercise of its responsibility to evaluate students’ academic achievements, or restricts the University’s ability to accomplish its learning objectives.

The University takes a serious view of academic misconduct and will severely penalize students, faculty and staff who are found guilty of offences associated with misappropriation of others’ work, misrepresentation of personal performance and fraud, improper access to scholarly resources, and obstructing others in pursuit of their academic endeavours. In addition to this policy, the University has adopted a number of policies that govern such offences, including the policies on Misconduct in Research and Scholarship and the Student Rights and Responsibilities regulations. These policies will be strictly enforced.

It is the responsibility of the University, its faculty, students and staff to be aware of what constitutes academic misconduct and to do as much as possible through establishment and use of policies and preventive procedures to limit the likelihood of offences occurring. Furthermore, individual members of the University community have the specific responsibility of initiating appropriate action in all instances where academic misconduct is believed to have taken place. This responsibility includes reporting such offences when they occur and making one’s disapproval of such behaviour obvious.

University of Guelph students have the responsibility of abiding by the University’s policy on academic misconduct regardless of their location of study; faculty, staff and students have the responsibility of supporting an environment that discourages misconduct. Students should also be aware that if they find their academic performance affected by medical, psychological or compassionate circumstances, they should inform the appropriate individuals (instructors, program counsellors, graduate advisors) and follow the available procedures for academic consideration outlined in the University’s calendars.

**Education and Remediation**

Education and remediation are key to promoting an environment in which academic integrity will flourish. It should not be possible for a student to claim that he/she was not warned about the University’s academic misconduct regulations, what constitutes academic misconduct and the potential consequences of transgressing. The need to educate students about academic integrity places a particular responsibility on faculty, especially with respect to discipline-specific issues.

The University’s Strategic Directions place high value on collaboration and co-operation in the learning process, across disciplines and between institutions. Further, the strategic plan recognizes the importance of students learning to work with others in group projects and situations as key to developing skills as self-reliant learners. This is reflected in the large number of courses at this University which involve group work and encourage co-operation in completing assignments. However, there may be need to limit the amount of collaboration or co-operation. Students need to be aware of, and instructors need to be clear about assignments for which discussing or completing the work with others is not appropriate and where the expectation is that students will work separately. Instructors should be very explicit about expectations with respect to academic integrity, and information with respect to academic misconduct should be presented to students as part of the course outline, academic program orientation materials and other materials posted and distributed to students. Students need to remain aware that instructors have access to the right to use electronic and other means of detection.

In addition, in the case of examinations, students should be sure that they read and understand the regulations with respect to conduct in examinations printed on the cover of each examination booklet, and should pay particular attention to any additional instructions from the examination invigilators.

In support of remediation, students convicted of an academic offence may be required to successfully complete an academic integrity remediation process.

*Note: In this policy, the word “dean” means “dean or designated associate dean.” The word “chair” means “chair of a department or director of a school.” The word “department” means “department or school.”*

**Offences**

Academic misconduct is broadly understood to mean offences against the academic integrity of the learning environment. Below are descriptions of academic offences. It is important to note that, while the University has attempted to present as comprehensive a list as possible, this list of potential academic offences should not be considered exhaustive. Students are responsible for knowing what constitutes an academic offence and faculty members have a responsibility to provide students, early in their course or program, with information about academic integrity that might be particular to their discipline. An offence may be deemed to have been committed whether the student knew a particular action was an offence or ought reasonably to have known. Whether or not a student intended to commit academic misconduct is not relevant for a finding of guilt. Hurried or careless submission of assignments does not excuse students from responsibility for verifying the academic integrity of their work before submitting it. Students who are in any doubt as to whether an action on their part could be construed as an academic offence should consult with a faculty member or academic counsellor.

It is the responsibility of students working in a group to take all reasonable steps to ensure that work submitted to the group by individual members has not been completed in a way that violates this policy.

Further, as some academic offences may also be viewed as violations of policies on Misconduct in Research and Scholarship, the Student Rights and Responsibilities regulations, the criminal code and/or civil statutes, students may also be subject to procedures and penalties outlined in those policies at the University’s discretion, and to criminal prosecution or civil action.

A graduate of the University may be charged with an academic offence committed while he/she was a registered student when, in the opinion of the dean, the offense, if detected, would have resulted in a sanction sufficiently severe that the degree would not have been granted at the time that it was.

1. **Misappropriation of Other’s Work**

   1. **Plagiarism**

   Plagiarism is misrepresenting the ideas, expression of ideas or work of others as one’s own. It includes reproducing or paraphrasing portions of someone else’s published or unpublished material, regardless of the source, and representing these as one’s own thinking by not acknowledging the appropriate source or by the failure to use appropriate quotation marks. In addition to books, articles and papers and other written works, material may include (but is not limited to): literary compositions and phrases, performance compositions, chemical compounds, art works, laboratory reports, research results, calculations and the results of calculations, diagrams, constructions, computer reports, computer code/software, and material on the internet. Some examples of plagiarism include:
• submission of a take-home examination, essay, laboratory report or other assignment written, in whole or in part, by someone else;
• using direct, verbatim quotations, paraphrased material, algorithms, formulae, scientific or mathematical concepts, or ideas without appropriate acknowledgment in any academic assignment;
• using another’s data or research findings;
• buying or selling term papers or assignments;
• submitting a computer program developed in whole or in part by someone else, with or without modifications, as one’s own;

Students have the responsibility to learn and use the conventions of documentation suitable to the discipline, and are encouraged to consult with the instructor of the course, the academic supervisor, or the department chair for clarification if needed. Instructors should include in the materials they provide to students about academic integrity, information about any unique, discipline-specific understandings with respect to what must be acknowledged or cited.\(^1\)

2. Copying

Copying is similar to plagiarism in that it involves the appropriation of others’ work as one’s own. It includes copying in whole or in part another’s test or examination answer(s), laboratory report, essay, or other assignment. Copying also includes submitting the same work, research or assignment for credit on more than one occasion in two or more courses, or in the same course, without the prior written permission of the instructor(s) in all courses involved (including courses taken at other post-secondary institutions).

3. Unauthorized Co-operation or Collaboration

It is an offence to co-operate or collaborate in the completion of an academic assignment, in whole or in part, when the instructor has indicated that the assignment is to be completed on an individual basis.

1 In addition to being concerned about appropriate citation, students who wish to use the work of others, from any source, should be aware of copyright laws and other conventions governing intellectual property. See the Office of Research website, www.uoguelph.ca/research/policies/index.shtml, for links to the University’s intellectual property policies.

2. Misrepresentation and Fraud

This category of offences covers a range of unacceptable activities, including the following:

1. Impersonation

Impersonation involves having someone impersonate oneself, either in person or electronically, in class, in an examination or in connection with any type of academic requirement, course assignment or material, or of availing oneself of the results of such impersonation. Both the impersonator and the individual impersonated (if aware of the impersonation) are subject to disciplinary proceedings under this policy.

2. Falsification

It is an offence to submit or present false or fraudulent assignments, research, credentials, or other documents for any academic purpose. This includes, but is not limited to:

• falsified research or lab results and data;
• concocting facts or reference;
• false medical or compassionate certificates;
• false letters of support or other letters of reference;
• falsified academic records, transcripts or other registrarial records;
• fraudulent submission practices (e.g., altering date stamps);
• altering graded work for re-submission.

It is also falsification to misrepresent the amount of work an individual has contributed to a group assignment or activity. Both the individual to whom work is falsely attributed and those who acquiesce in its attribution commit an academic offence.

3. Withholding

It is an offence to withhold records, transcripts or other academic documents with the intent to mislead or gain unfair academic advantage.

4. Unauthorized Aids and Assistance

It is an offence to use or possess an unauthorized aid, to use or obtain unauthorized assistance, or to use or obtain prohibited material in any academic examination or term test or in connection with any other form of academic work. Such aids or material may include, but are not limited to, specific documents, electronic equipment or devices, and commercial services (such as writing, editorial, software, or research survey services). Students should assume that any such aid is prohibited unless they are specifically advised otherwise by the instructor or invigilator. Note that unauthorized assistance does not include student support services offered by the University, such as the Learning Commons.

3. Improper Access and Obstruction

1. Preventing Access to Materials

It is an offence to alter, destroy, hide, remove without authorization, or in any other way improperly restrict access to library, electronic or other materials intended for general academic use.

2. Obstruction and Interference

It is an offence to obstruct or otherwise interfere with the scholarly activities of another, or to alter or falsify the work of others, in order to gain unfair academic advantage. This includes, but is not limited to, deleting data or files, interfering or tampering with experimental data, with a human or animal subject, with a written or other creation (for example, a painting, a sculpture, a film), with a chemical used for research, or with any other object of study or research device.

3. Improper Access

It is an offence to improperly obtain through theft, bribery, collusion, or otherwise access to confidential information, examinations or test questions or to gain undue academic advantage as a result of such behaviour.

4. Improper Dissemination

It is an offence to publish, disseminate or otherwise make public to a third party without prior written consent, confidential information. Confidential information includes but is not limited to academic information, data or documents which are not otherwise publicly available and which have been gathered or held with a reasonable expectation of confidentiality.

4. Aiding and Abetting

Knowingly aiding or abetting anyone in committing any form of academic misconduct is itself academic misconduct and subject to this policy.

Penalties

A. Range of Penalties That May be Assessed

If a student is found guilty of academic misconduct, an Official Warning will be given that an offence is now noted in the student’s record and that a subsequent offence will attract a more severe penalty. In addition, one or more of the following penalties may be assessed:

1. A requirement for submission of a new or alternative piece of work.
2. The rescinding of University-funded scholarships or bursaries.
3. Partial or total loss of marks on the examination or assignment in which the offence occurred.
4. Partial or total loss of marks for the course in which the offence occurred.
5. Suspension from the University for a period of between one and six consecutive semesters. For the period of suspension, a student will not be permitted to register and will retain none of the privileges accorded to students with respect to right of access to University faculty, staff, facilities or services.
6. A recommendation for expulsion from the University.

A. A Recommendation for revocation/rescinding of a degree. A person who is found guilty of academic misconduct after having been approved for graduation, or after having a degree conferred, may have the degree rescinded or revoked when, in the opinion of the dean, the offence, if detected, would have resulted in a sanction sufficiently severe that the degree would not have been granted at the time that it was.

B. Notes with Respect to Penalties

The following should be noted with respect to penalties:

1. Senate has approved a set of Guidelines for the Assessment of Penalties for Academic Misconduct. These guidelines are used by chairs/directors and deans to assist them in determining appropriate penalties for individual cases. A copy of the guidelines can be found at http://www.uoguelph.ca/undergrad_calendar/c08/c08-aminconduct.shtml, or may be obtained from the Senate Office or the office of any chair or dean.
2. Students who have been found guilty of a course-based offence and who have been assessed a penalty in addition to an Official Warning will not be permitted to drop the course or to withdraw with failure. A student who has dropped the course prior to the offence(s) being detected will have his/her enrolment in the course reinstated if found guilty and if the penalty assessed is other than an Official Warning.
3. Students who have been suspended for academic misconduct will not receive credit for any courses taken while under suspension. This policy applies to any credit course taken during the suspension period, be it distance, or non-campus, taken in open learning programs at the University of Guelph or at another post-secondary institution. In addition, in the case of graduate students, any research or writing completed during the suspension period may not be submitted in fulfillment of program requirements once the period of suspension is concluded.
4. A student who wishes to be considered for readmission after a suspension must make an application that will be judged on the basis of eligibility to continue. A student who is suspended for academic misconduct and also fails to meet the continuation of learning programs at the University of Guelph or at another post-secondary institution. In addition, in the case of graduate students, any research or writing completed during the suspension period may not be submitted in fulfillment of program requirements once the period of suspension is concluded.
5. A student who has been expelled from the University of Guelph is not eligible for readmission to the University for at least five years. A student who wishes to be
considered for readmission must petition the President to have the expulsion status removed. The President will form a hearing committee to review the case for lifting the admission restriction. If the committee decides to remove the expulsion status, the student who wishes to be considered for readmission must then make an application that will be judged on the basis of eligibility to continue. If the committee decides to leave the expulsion status in place, the student must wait at least another two years before submitting a new petition.

6. Penalties may be applied retroactively if an offence is discovered subsequent to completion of a course or after graduation.

Procedures

A. Notes Re: Procedures and Authority to Act

1. Deans may delegate their authority under this policy to an appropriate designate(s). Such delegation may be full (for example, all cases are delegated to an Associate Dean), or partial (for example, authority with respect to offences related to course work may be delegated to departmental chairs). Deans must provide the University’s Judicial Officer with the name(s) of individual(s) to whom authority has been delegated under this policy.

2. For offences related to course work (including examinations):
   a. The designate of the Director of Open Learning will carry out the role of the chair in cases where the offence has been committed in an Open Learning, non-degree credit course. Degree credit courses offered through distance are within the authority of the chair of the department offering the course. The role of the dean in the case of non-degree credit courses offered through the Open Learning program is carried out by the Director of Open Learning.
   b. For undergraduate students and open learners, the relevant dean is the dean of the college in which the course is offered, and the dean of the college in which the student is enrolled (if different) should receive a copy of the decision. In the event that an offence is committed in a degree credit course by an open learner, the Director of Open Learning should receive the copy of the decision.
   c. For graduate students, the relevant deans are the dean of the college in which the course is offered and the Dean of Graduate Studies acting jointly. The dean of the college in which the student is enrolled (if different) should receive a copy of the decision.

3. For offences not related to courses, or for course offences involving students not enrolled in the course, for undergraduate students the dean of the college in which the student is enrolled is responsible for administering the policy. For graduate students, the policy is administered jointly by the Dean of Graduate Studies and the dean of the college in which the student is enrolled.

4. In the event that a chair/director has a conflict of interest in dealing with a case, the conflict of interest on the part of a dean, the Provost will appoint a designate to deal with the case. In the event that a dean's designate has a conflict of interest in dealing with a case, the dean may appoint another faculty member to deal with the case. In the event that a conflict of interest is on the part of a dean, the Provost will appoint another faculty member to deal with the case.

5. Wherever in this policy it states that a student is to be contacted, the normal expectation is that such contact will be made using the student’s University of Guelph email account, with a copy of any correspondence being sent to the home address provided to the University by the student.

B. Detection and Documentation

1. Examinations
   a. The responsibility for preventing and detecting academic misconduct in an examination lies with the invigilators, although they make use of reports from others to assist them in detection. In cases of suspected impersonation, the chief invigilator shall require the student concerned to remain after the examination until the student is satisfactorily identified. In other cases of suspected academic misconduct, the chief invigilator shall allow the student to complete the examination, but:
      • may require that the student complete the examination in another location or setting when it is deemed that such action will cause the least disruption of those taking the examination; and
      • shall confiscate any suspect material (including those portions of the examination completed to that point) and give it, along with the student’s other examination booklet(s) (collected at the end of the exam) to the instructor immediately following the examination.
   b. The chief invigilator shall give a full report, together with any confiscated material, to the instructor-in-charge of the course if the instructor is not the chief invigilator. In instance of Open Learning courses, the material will be submitted to the Director of Open Learning. The student is required to contact the instructor no later than the end of the examination period.

2. Term assignments, including research and thesis work
   a. The responsibility for detecting academic misconduct on term assignments, etc., necessarily lies with the person(s) responsible for evaluation and discussion of the student’s work, although that person may make use of reports from others to assist in detection, and may make use of electronic means of detection appropriate to the discipline. Where academic misconduct is suspected, the evaluator/reader shall retain possession of any suspect material and give a full report in writing together with any confiscated material to the instructor-in-charge of the course, or to the student’s advisor, if the instructor/advisor is not the evaluator/reader. At this stage, the student will be informed by the instructor/advisor that a suspicion of academic misconduct is being investigated.

3. Cases outside the domain of examinations or assignments
   a. The responsibility for detecting academic misconduct in the context of an academic environment that is not part of the formal examination or assignment process rests with the entire University community. Where academic misconduct is suspected, but where it is unclear whether it is directly related to a specific course, or where the specific course is unknown, those with knowledge of an offence should contact the dean of the college in which the student is enrolled and the Dean of Graduate Studies in the case of a graduate student. If the suspected offence appears to be related to a specific course, then the instructor of the course should be contacted.

C. Investigation and Judgment

1. Offences Related to Course Work, Research, Thesis Work or Examinations
   a. When an instructor or an advisor suspects that an academic offence has been committed, he/she is responsible for gathering evidence to support or allay the suspicion and may invite the student to meet with him/her to discuss the concerns. The instructor/advisor should pursue the gathering of evidence in a timely way.
      The normal expectation for assignments due within the semester is that instructors/advisors will complete their evidence gathering within ten working days of the due date for the assignment. For assignments submitted at the end of the semester or during the examination period, the instructor has until the tenth day of the subsequent semester to collect the evidence and determine whether to pursue a case. In a case where an instructor/advisor requires substantial additional time to collect and review the evidence, he/she may seek an extension of time from the chair.
   b. If after reviewing the available evidence the instructor/advisor believes an offence may have been committed, he/she shall refer the case to the chair of the department responsible for the course or graduate program. The referral document will include all evidentially material collected by the instructor/advisor along with the transmittal form on which the instructor/advisor may include any recommendations with respect to penalty should the allegation be upheld. A copy of the first page of the transmittal form shall be sent to Undergraduate Program Services/Graduate Program Services by the chair.
   c. If the chair believes that there is sufficient evidence to support a charge of academic misconduct, he/she will forward the transmittal form and all evidentiary material to the dean/dean's designate, normally within ten working days of receipt of the allegation from the instructor/advisor.
   d. Normally within ten working days of receipt of the case from the chair, the dean will invite the student to meet with him/her to discuss the allegation(s). If the student does not respond within ten working days to the request for an interview, or if the student refuses to attend an interview, the dean may proceed with the case. The student may be accompanied at the meeting by a support person. Prior to meeting with the student, the dean/advisor may include any individuals he/she believes pertinent to the case. At the meeting, the student will be presented with the evidence collected by the dean to that point. Based on the student’s response to the evidence, the dean may engage in further consultation with any individuals he/she deems pertinent to the case. The student will be informed of any other evidence gathered as a result of those consultations and be given an opportunity to respond prior to the dean's reaching a decision on the case.
   e. If after weighing the available evidence the dean finds an offence has been committed, the dean will contact Undergraduate Program Services/Graduate Program Services as appropriate to determine whether this is a first offence.
   f. In determining the appropriate penalty, the dean will consult the Guidelines for Penalties for Academic Misconduct, will take into consideration the recommendation from the instructor/advisor, and consider such factors as the relative weight of the assignment, the semester level of the student, any record of previous offences, the seriousness of the offence (e.g. the amount of work plagiarized), and any mitigating circumstances presented by the student. For graduate students, attention will also be paid to whether the work in which the offence has been committed is one of the major milestones of the graduate program (e.g., qualifying examination, thesis).
   g. Normally within ten working days of the meeting with the student, or ten days from the date of the final communication with the student with respect to any additional evidence, the dean will inform the student in writing of the disposition of the case. In a case where the dean requires substantial additional time to review the evidence and come to a judgment, she/he may seek an extension of time from the Provost.
   h. Should the dean determine that an academic offence has not been committed he/she shall so inform the student, the instructor/advisor and the chair in writing. A copy of the letter will be forwarded to Undergraduate Program Services/Graduate Program Services as appropriate. Thereafter, the complaint
shall have no official status as an accusation of academic misconduct and no record of the complaint shall be maintained on the student's record.\footnote{A statistical record will be kept by the Office of the Dean for annual reporting purposes.}

Should the dean determine that an academic offence has been committed, he/she shall inform the student in writing. The written notification should include the offence for which the student has been found guilty and information with respect to penalty. Copies of the written notification should be sent to any other relevant dean(s) office(s), to the instructor/advisor, the department chair, the program counsellor and to Undergraduate Program Services/Graduate Program Services (as appropriate).

In a case where the dean believes suspension or a recommendation for expulsion/revocation is warranted, he/she shall seek advice from the Provost and Vice-President Academic before making a final determination with respect to penalty.

When a case is brought to the attention of the dean, the dean shall inform the student in writing and forward the matter to the Senate Committee on Student Petitions. At that time, the student may appeal the recommendation of expulsion/revocation and request a hearing of the Senate Committee on Student Petitions. Whether or not a hearing is requested, the Senate Committee on Student Petitions will proceed with the case and inform the parties involved of its decision.

In the case of an expulsion, the Senate Committee on Student Petitions may decide to uphold the recommendation to expel, in which case the recommendation will be forwarded to the President for final decision. Alternatively, the Senate Committee on Student Petitions may decide to impose a lesser penalty, in which case the President's assent is not required. When a recommendation is referred to the President, the President may uphold the recommendation to expel or impose a lesser penalty, which will be final.

In the case of revocation/rescinding of a degree, if the Senate Committee on Student Petitions confirms the recommendation of rescinding/revocation of a degree, the recommendation will be forwarded to the President. If the President does not confirm the recommendation of rescinding/revocation of a degree, the President may impose a lesser penalty, which will be final. If the President confirms the recommendation, the recommendation will be forwarded to Senate for final decision with respect to revocation/revoking. If the Senate does not confirm the recommendation of revocation/rescinding, the matter will be returned to the President for a final decision with respect to a lesser penalty.

Access to the record of academic misconduct will be limited to those involved in processing appeals and those involved in processing additional complaints against the student. Note: Template letters to students, forms for Undergraduate Program Services and Graduate Program Services, and suggested wording for course outlines are available on the following site: http://www.uoguelph.ca/senate/policies.shtml.

Guidelines for Penalties for Academic Misconduct

With the finding of academic misconduct, there is a mandatory penalty of Official Warning which will stay on the student’s record until graduation. In addition, one or more other penalties may be assessed. Following are guidelines used by chair/directors and deans in determining the appropriate additional penalties. Users need to be aware that these are guidelines and that not all cases will fit neatly into the categories.

The guidelines below provide a range of penalties (minima and maxima) for the various offences identified in the Policy on Academic Misconduct as well as indicate what penalty is to be considered the “norm” for the offence in the case of a first or second year student. It should be noted that “subsequent offence” means any subsequent offence, not only a subsequent offence in the same category.

For a course-based offence, the chair/director may assign penalties up to and including loss of grades if the offence is a first offence. If there is a previous offence on the student’s record, or if the chair/director believes a stronger penalty is merited, the case is forwarded to the dean for penalty assessment.

In cases where the dean is of the opinion that there is cause for a penalty different from those indicated in the guidelines (either higher or lower), he/she will review the penalty with the Provost and Vice-President Academic. The dean will also consult with the Provost in cases where the contemplated penalty is suspension or expulsion.

In a case where the dean is of the opinion that the finding of guilt is not supported by the evidence, the dean will review the case with the chair/director. If the chair/director and dean are unable to reach an agreement on the case, the dean will consult with the Provost before making final determinations as to the finding of guilt and any penalty to be applied in the event that the dean upholds the finding of guilt.

In determining the appropriate penalty the chair/director or dean will take into consideration these guidelines, the recommendation from the instructor, the recommendation from the chair/director (in the case of a dean assigning a penalty), and any other relevant factors such as the relative weight of the assignment, the semester level of the student, the seriousness or extent of the offence (e.g. the amount of work plagiarized), any record of previous offences, and any mitigating circumstances presented by the student.

<p>| Guidelines for Penalties for Academic Misconduct in Addition to Official Warning |
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<th><strong>Offences</strong></th>
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<th><strong>Subsequent Offences</strong></th>
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1. Plagiarism

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2. Copying

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B. Misrepresentation and Fraud

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2. Falsification

In addition to any penalty that may be applied, if a document is discovered to have been falsified, the document is null and void and the action permitted by the document is reversed.

3. Withholding of documents

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C. Improper Access and Obstruction ⁴

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<td></td>
<td></td>
<td>Expulsion/Revocation</td>
<td></td>
</tr>
</tbody>
</table>

2. Obstruction and Interference

<table>
<thead>
<tr>
<th>Minor</th>
<th>Zero in the course</th>
<th>Loss of scholarship/bursary</th>
<th>Loss of scholarship/bursary</th>
<th>Suspension</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Expulsion/Revocation</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3. Improper Access

<table>
<thead>
<tr>
<th>Minor</th>
<th>Zero in the course (if applicable)</th>
<th>Loss of scholarship/bursary</th>
<th>Loss of scholarship/bursary</th>
<th>Suspension</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Expulsion/Revocation</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4. Improper Dissemination

<table>
<thead>
<tr>
<th>Minor</th>
<th>Zero in the course</th>
<th>Loss of scholarship/bursary</th>
<th>Loss of scholarship/bursary</th>
<th>Suspension</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Expulsion/Revocation</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

³ Bolded text indicates the normal expectation for penalty for a first or second year undergraduate, or first year graduate student.

⁴ If the falsified document is course-related (e.g. medical note).

⁵ If the withheld information would have affected admission to a course.

⁶ These offences may also be subject to penalty under the Student Rights and Responsibilities Policy.

Academic Review Sub-Committee Procedures

The Academic Review Sub-Committee of each program committee meets three times each semester as follows:

- after the third day of the add period.
- after the twentieth class day.
- after the last day of exams.

Refer to Section III–Schedule of Dates, for the submission deadlines for each of these meetings.

A request for academic consideration should be made by the student to the Academic Review Sub-Committee during, or immediately after, the semester to which it refers. If a student is appealing a required to withdraw decision, the student should submit the "Request for Academic Consideration" form by the first deadline of the next semester.

The Academic Review Sub-Committee will consider requests for academic consideration with regard to:

1. Course results (e.g. late drop of a course(s) with or without failure, deferred or supplemental privileges, credit status).
2. Meeting the continuation of studies requirements (e.g. probationary status).
3. Meeting the graduation requirements.

All requests are to be made in writing, preferably type-written, on the "Request for Academic Consideration" form available from Undergraduate Program Services, Office of Registrarial Services, or the program counsellor. Request forms must be accompanied by relevant supporting documentation. Requests that are inadequately documented or that lack clarity will not be dealt with but will be returned to the student. The student should meet with the program counsellor for advice on the preparation and submission of requests for academic consideration.

When the form is complete, the student should retain a copy along with copies of all documentation submitted. The form, with the original documentation attached, should be submitted to the student’s program counsellor or to Undergraduate Program Services, Office of Registrarial Services.

The Associate Registrar, Undergraduate Program Services, or designee, shall prepare the agenda for each meeting of the Academic Review Sub-Committee, maintain a record of the sub-committee's decisions and immediately inform each student in writing as to the disposition of the request.

An appeal of an Academic Review Sub-Committee's decision may be submitted to the Senate Committee on Student Petitions within 90 days of the decision. Students who are appealing the decision of an Academic Review Sub-Committee for denial of probationary status will not be allowed to attend classes pending the outcome of the petition.
Academic Standing

Eligible to Continue

A student who does satisfy the program requirements for continuation of study will be eligible to continue.

Probationary

A student who does not satisfy the program requirements for continuation of study will be allowed to continue in his/her program if granted probationary status (see Continuation of Study in this section).

Required to Withdraw

A student who does not satisfy the program requirements for continuation of study will be required to withdraw from the University for a minimum of two semesters (see Continuation of Study in this section).

Students who do not satisfy the program requirements may appeal to the Academic Review Sub-Committee for probationary status to be granted based on medical, psychological or compassionate grounds.

Readmission to a program at the University of Guelph is not automatic. Students who are required to withdraw must apply for readmission to the University after completing the minimum two semesters of rustication. Students should consult Section IV–Admission Information regarding appropriate admission requirements and deadline dates.

A student who has been required to withdraw and who has made an appeal for probationary status to the Academic Review Sub-Committee will not be allowed to attend classes until such time that the appeal is granted.

A term academic standing is assigned to each completed semester according to the requirements of the Continuation of Study policy. A student whose term academic standing is Required to Withdraw according to the requirements of the Continuation of Study policy may have their term academic standing changed to “probation” as a result of a Request for Academic Consideration.

Notes on Academic Structure

Senate

Under the University of Guelph Act the Senate is the ultimate academic authority in the University. Senate Bylaws may be consulted in the office of the Secretary of Senate. Undergraduate student senators are elected by the undergraduate students. The meetings of Senate are open to visitors who have tickets. Tickets are available from the Secretary of Senate, 4th Floor, University Centre. Senate directs the academic life of the University assisted by its boards and committees which report regularly to Senate.

Board of Undergraduate Studies

The Board of Undergraduate Studies, which meets regularly from the beginning of September to the end of June, controls all undergraduate degree programs under the authority of Senate. The Board comprises the Associate Vice-President (Academic), the University Registrar, the Associate Vice-President (Student Affairs), the Co-ordinator of Undergraduate Curriculum, the Chief Librarian, the Director of Open Learning, the Director of Agri-Food Education Programs, one College Dean, five faculty, and four undergraduate students.

Program Committee

For each undergraduate degree program there is a program committee which consists of faculty representatives, student members, staff from the Office of Registrarial Services, and a program counsellor. Committees examine the general regulations relating to their program and also the particular regulations proposed for specializations within that program. Admissions policy is recommended by these committees to the Board of Undergraduate Studies and is approved by Senate. Each program committee has an Academic Review Sub-Committee which reviews grades as reported to the Registrar and determines the academic standing of each student in the program.

Senate Committee on Student Petitions

This committee assesses and disposes of academic appeals from students registered at the University of Guelph. The Senate Committee on Student Petitions consists of ten members of Senate and a chair, who is named by Senate and who may be either a student or a faculty Senator who has had previous experience on the Committee. Of the ten members of Senate, five are students and five are faculty members. The members of the committee are appointed annually by Senate on the recommendation of the Senate Committee on Bylaws and Membership.

Adding Courses

All course additions to a student's program for a particular semester are to be completed by the end of the add period. On the last day of the add period, students will be able to add courses up to a maximum of 3.25 credits on a first-come, first-served basis. Additionally, with a signature from the program counsellor, under exceptional circumstances a student will be able to enrol in more than 2.75 credits earlier in the process. The addition of a course after the end of the add period will be considered only in exceptional circumstances and will require the approval of both the instructor for the course and the program counsellor of the program in which the student is enrolled. The program counsellor's signature should be sought first but does not presume the judgment of the instructor as to the appropriateness of the late addition for his or her particular course. In practice, the following have been deemed to be exceptional circumstances: illness or compassionate grounds for missing all or part of the first three class days; interchanging courses with common lectures, one with and one without labs; late resolution of appeals; failure of a deferred course condition or examination; university errors in registration procedures.

Course Requisite(s)

A student wishing to enrol in a course for which he/she does not have credit for the stated course requisite(s) may seek permission from the instructor to have the requisite(s) waived. The student seeking the waiver must obtain a “Course Requisite/Restriction Waiver” and have it completed by the instructor. The student must then present the completed form along with a completed Course Request form to Undergraduate Program Services for processing. Waiver forms are available from Undergraduate Program Services, Office of Registrarial Services, Level 3, University Centre. https://webadvisor.uoguelph.ca/st/index.shtml.

Distance Education Courses

Distance Education courses may be added up to the end of the add period, with the permission of the Office of Open Learning.

Program Approval

Program Approval is required to add courses if the student is adding more than the normal course load.

Regular Courses

Regular courses may be added without permission of the department. Regular courses are those courses that are not designated as Priority Access in Chapter XII.

Two-Semester Courses

When adding a two-semester course, students must complete the course selection process for each part of the course during the appropriate course selection period. (e.g. AGR*2351 in the Fall semester and AGR*2352 in the Winter semester). These courses must be taken in consecutive semesters as outlined in the course description.

Caution: Students granted permission to add a course after the end of the add period may encounter difficulty in mastering course content and may be unable to meet all course requirements. The University has no obligation to assist students to pick up material that has been missed because of late enrolment.

Address for University Communication

Depending on the nature and timing of the communication, the University may use one of these addresses to communicate with students. Students are, therefore, responsible for checking all of the following on a regular basis:

Email Address

The University issued email address is considered an official address and will be used for correspondence from the University. Students are responsible for monitoring their University-issued email account regularly. See Section I–Statement of Students’ Academic Responsibilities for more information.

Home Address

Students are responsible for maintaining a current mailing address with the University. Address changes can be made, in writing, through Undergraduate Program Services.

Admissions

University of Guelph students may, at some point, be required to complete and submit an application form to the Admission Services Office. The two most common reasons for submitting this internal application form are: to apply to transfer from one degree program to another or to apply for readmission to a program.

Application forms must be submitted to Admission Services by the deadline date established for each semester. An application fee is payable at the time the application is submitted (refer to Section VI–Schedule of Fees).

Application deadline dates are published in Section IV–Admission Information.

Associated Program Requirements

Program Committees have the option of identifying, as requirements for graduation, program components that are not academic courses and do not carry an academic credit weight. Associated Program Requirements allow programs to give formal recognition (but not academic credit) to the successful completion of program components that are primarily non-academic but are judged by the program committee as essential to fulfill the objectives of a degree or diploma program. Associated Program Requirements, when valid, are identified in Section X–Degree Programs in the schedule of studies for each appropriate area of study.
Attendance at Class

Instructors will inform students of the attendance requirements for individual courses in accordance with the policy of the department or school.

Caution: A student who for any reason does not attend classes regularly, runs the risk of being unable to complete the work of the semester and is advised to report to the program counsellor for academic counselling upon return to classes.

Auditing Courses

A student may audit a course upon approval of the department offering the course and payment of a fee. The department shall provide to persons intending to audit a course a written statement prescribing the extent to which they may participate in the work of the course. No official transcript record of audited courses will be provided. The procedures for registration and course changes are the same as for regular course attempts, except that after the end of the add period, a student who is registered under audit status for a particular course is committed to that status and may not convert to credit status for the same course. A student may change from credit to audit status up to the drop deadline applicable to that course, with approval. A fee is assigned for each audit course (refer to Section VI–Schedule of Fees) except in the case of a student holding full-time classification. Full-time students who have received approval for audit courses are not assessed additional fees.

Permission to audit must be obtained from the instructor for the course, the chair of the department offering the course, and the student's program counsellor.

The student who receives approval to audit should discuss with the instructor the conditions under which that approval is given including, for example, attendance, submission of term work, taking of examinations.

An approved audit course does not constitute a course attempt. No official grade will be reported, and audit courses will not be used in the determination of the eligibility for continuation of study. Also, no official documentation will be provided to verify the auditing of a course.

Audit courses are not considered in calculating full-time or part-time status.

Class Level Calculation

All programs determine class level on the basis of successfully completed courses plus the number of courses in progress. As courses are dropped and added, or grades are received, the class level must be adjusted accordingly. Class Level is determined as follows:

<table>
<thead>
<tr>
<th>Successfully Completed Credits and Credits In-progress</th>
<th>Class Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.00 - 2.50</td>
<td>1</td>
</tr>
<tr>
<td>2.75 - 5.00</td>
<td>2</td>
</tr>
<tr>
<td>5.25 - 7.50</td>
<td>3</td>
</tr>
<tr>
<td>7.75 - 10.00</td>
<td>4</td>
</tr>
<tr>
<td>10.25 - 12.50</td>
<td>5</td>
</tr>
<tr>
<td>12.75 - 15.00</td>
<td>6</td>
</tr>
<tr>
<td>15.25 - 17.50</td>
<td>7</td>
</tr>
<tr>
<td>17.75 - 20.00</td>
<td>8</td>
</tr>
<tr>
<td>20.25 - 22.50</td>
<td>9</td>
</tr>
<tr>
<td>22.75 (or more)</td>
<td>10</td>
</tr>
</tbody>
</table>

Continuation of Study

For continuation of study within a degree program, Open Learning or General Studies, a student must satisfy the conditions as set down under Schedule 1 or Schedule 2. The appropriate schedule will be determined by the criteria outlined below.

Schedule 3 is outlined in the Diploma Program Calendar and is only applicable to students registered in a Diploma program.

Schedule 4 is outlined in the Degree Programs section of this calendar (Section X–Doctor of Veterinary Medicine) and is only applicable to students registered in the Doctor of Veterinary Medicine program.

Schedule 1

Schedule 2

Schedule 1 Regulations

All degree programs, Open Learning and General Studies have established conditions which must be met for continuation of study. Continuation of study within a program is permitted provided the standards of academic performance listed below are met. In some instances, students not meeting the requirements may be allowed to proceed on probation (see Academic Standing–Probationary). If these conditions are not met, the student will be required to withdraw from the program for a minimum of two semesters and may apply for readmission after that period of time.

The continuation of study regulations at the University of Guelph are based on the principle that students must maintain a minimum average of 60%. To allow for transition issues, some leniency has been built into the minimum average requirement during the first 5.00 credit attempts. The student's cumulative average will be reviewed first. If the student's cumulative average does not meet the minimum required, the student will either be required to withdraw or placed on probation. When a student is placed on probation he/she will be required to obtain a minimum semester average. In subsequent semesters the student will either be required to withdraw, allowed to continue on probation, or be placed back on regular status. Students will be taken off probation once their cumulative average is greater than, or equal to 60%.

Conditions for continuation of study are applied using the following tables:

Number of Credit Attempts: between 0.25 and 2.50

Students who have attempted between 0.25 and 2.50 credits will be allowed to continue regardless of the cumulative average. Students will be placed on probation if their cumulative average falls below 50%.

Number of Credit Attempts: between 2.75 and 5.00

If Eligible to Continue

<table>
<thead>
<tr>
<th>Cumulative Average (C)</th>
<th>Status of Student</th>
</tr>
</thead>
<tbody>
<tr>
<td>C ≥ 60%</td>
<td>Eligible to Continue</td>
</tr>
</tbody>
</table>

If on Probation

<table>
<thead>
<tr>
<th>Cumulative Average (C)</th>
<th>Status of Student</th>
</tr>
</thead>
<tbody>
<tr>
<td>S ≤ 50%</td>
<td>Required to Withdraw</td>
</tr>
<tr>
<td>S ≥ 50% but C ≥ 50%</td>
<td>Required to Withdraw</td>
</tr>
<tr>
<td>S ≥ 50% but C ≥ 60%</td>
<td>Probationary Status</td>
</tr>
<tr>
<td>C ≥ 60%</td>
<td>Eligible to Continue</td>
</tr>
</tbody>
</table>

Number of Credit Attempts: more than 5.00

If Eligible to Continue

<table>
<thead>
<tr>
<th>Cumulative Average (C)</th>
<th>Status of Student</th>
</tr>
</thead>
<tbody>
<tr>
<td>C ≤ 50%</td>
<td>Required to Withdraw</td>
</tr>
<tr>
<td>C ≥ 50% and C &lt; 60%</td>
<td>Probationary Status</td>
</tr>
<tr>
<td>C ≥ 60%</td>
<td>Eligible to Continue</td>
</tr>
</tbody>
</table>

If on Probation

<table>
<thead>
<tr>
<th>Cumulative Average (C)</th>
<th>Status of Student</th>
</tr>
</thead>
<tbody>
<tr>
<td>S ≤ 60%</td>
<td>Required to Withdraw</td>
</tr>
<tr>
<td>S ≥ 60% but C ≤ 60%</td>
<td>Probationary Status</td>
</tr>
<tr>
<td>C ≥ 60%</td>
<td>Eligible to Continue</td>
</tr>
</tbody>
</table>
on probation. If these conditions are not met, the student will be required to withdraw from the program for a minimum of two semesters and may apply for readmission after that time.

The continuation of study regulations are based on the principle that students must be maintaining a 60% average. The details of the continuation of study model follow. The student's cumulative average will first be reviewed. If it does not meet the required level, the student will either be required to withdraw or placed on probation. Students who are placed on probation will be required to obtain a given semester average in subsequent semesters. As a result of this review, the student will either be required to withdraw, remain on probation, or placed back on regular status. Students will be taken off probation once their cumulative average rises above 60%.

Continuation of Study is assessed each semester. Students whose cumulative average falls below 60% will be placed on probation for one semester, and then assessed based on their semester average.

If Eligible to Continue

<table>
<thead>
<tr>
<th>Cumulative Average (C)</th>
<th>Status of Student</th>
</tr>
</thead>
<tbody>
<tr>
<td>C &lt; 50%</td>
<td>Required to Withdraw</td>
</tr>
<tr>
<td>C ≥ 50% and C &lt;60%</td>
<td>Probationary Status</td>
</tr>
<tr>
<td>C ≥ 60%</td>
<td>Eligible to Continue</td>
</tr>
</tbody>
</table>

If on Probation

<table>
<thead>
<tr>
<th>Semester Average (S)</th>
<th>Cumulative Average (C)</th>
<th>Status of Student</th>
</tr>
</thead>
<tbody>
<tr>
<td>S &lt; 60%</td>
<td></td>
<td>Required to Withdraw</td>
</tr>
<tr>
<td>S ≥ 60% but C &lt;60%</td>
<td></td>
<td>Probationary Status</td>
</tr>
<tr>
<td>C ≥ 60%</td>
<td></td>
<td>Eligible to Continue</td>
</tr>
</tbody>
</table>

Note: Alternative course evaluations will not be included in the Continuation of Study calculations [Pass (P), Outstanding Pass (OP), Fail (F), Credit Standing (CRD) or Withdrawal with Failure (WF)]. Courses taken on a letter of permission will also not be included in the calculations. Students negatively affected by the omission of these courses in the Continuation of Study calculations may appeal a continuation decision to the Academic Review Committee.

Course Sections

Student are advised of their course section when they receive their individual course schedule (WebAdvisor) at the beginning of the semester. Course section information indicates the meeting times and room for each course.

Students must attend the course section on their course schedule. In the event that a section change is necessary the student must drop the old section and add the new one following the add/drop process.

Department Chair’s Responsibilities

The department chair will designate the responsibility for the approving of section changes during the add period. The approval of section changes may be done by the department or the responsibility may be assigned to individual instructors.

Registrar’s Responsibilities

Undergraduate Program Services confirms with the students on their individual course schedules (WebAdvisor) the course section in which they are enrolled.

Student’s Responsibilities

Students must stay in assigned course sections. In the event that a section change is decided by the department and/or instructor offering the course must be consulted.

Course Selection

This is the procedure by which students indicate their course requests, including the appropriate course section for upcoming semesters. Program approval may be required as outlined in Section VII—Academic Counselling. Subject to the availability of a published timetable, students may select courses for more than one semester. Students are cautioned that courses may be subject to listed enrolment restrictions. In such cases, priority in the selection of students to receive the course will be given to those who have selected courses prior to the start of the semester. For further information, refer to Priority Access Courses in this section of the calendar.

Students are normally restricted to selecting 2.75 credits during course selection and up to the last day of the add period. A number of programs have Senate-approved schedules of study that require students to register in more than 2.75 credits for particular semesters. As a result, these programs are exempted from the 2.75 restriction as required.

On the last day of the add period, students are allowed to add courses up to a maximum of 3.25 credits on a first-come, first-served basis. Additionally, with approval from the program counsellor, under exceptional circumstances, a student can enrol in more than 2.75 credits earlier in the process.

New Students

A booklet including course selection material will be forwarded to new students by the Office of Registrarial Services. Consult this booklet to determine the procedures for course selection that pertain to the program to which you have applied. Students who are unable to return their course selection prior to the published deadline date have an opportunity to make their selection during the extended add period.

In-Course Students

Course selection material for upcoming semesters will be available during the semester to all registered students. Students who are not currently registered may receive the course selection material by contacting Undergraduate Program Services, Office of Registrarial Services, prior to the deadline date for submission of course selection requests (refer to Section III—Schedule of Dates). Course selection requests received after the deadline date will not be processed.

There is a scheduled course selection period each semester where students can select courses for upcoming semesters (refer to Section III—Schedule of Dates for the exact dates).

Course selection is important for a number of reasons:

- a billing is generated via WebAdvisor by Student Financial Services on the basis of the course selection.
- course sections may be full after the course selection period and those who have not selected courses may not be able to enrol in them.

Students are encouraged to select courses for more than one semester at a time, subject to the availability of an Undergraduate Course Timetable.

Students are encouraged to select their courses using WebAdvisor, however, they may choose to complete an "Undergraduate Course Request" form. A separate "Undergraduate Course Request" form must be completed for each semester. "Undergraduate Course Request" forms must be submitted by the course selection deadline date for the applicable semester. Students who miss the course selection deadline must add their courses at the start of the semester (see Adding Courses and Dropping Courses in this section of the Undergraduate Calendar).

Detailed Instructions

Normally, course selection on WebAdvisor results in a class schedule indicating lecture and laboratory sections, room locations and examination schedules, as applicable.

A copy of a student’s Academic Evaluation will be available after the second week of classes in a semester to each registered student. Students are encouraged to select their courses early and for more than one semester at a time.

Student’s Responsibilities

1. Complete the Course Selection process.
2. Obtain program approvals if necessary (refer Section VII—Academic Counselling)
3. Submit the request using WebAdvisor. If a student is required to submit a form to Undergraduate Program Services he/she should complete the General section (Section A) of the Undergraduate Course Request form.
4. When a two-semester course is selected, students must complete the course selection process for each term during the appropriate course selection period. These courses must be taken in consecutive semesters as outlined in the course description.

All inquiries regarding distance education courses should be directed to the Office of Open Learning. http://www.open.uoguelph.ca/To change your specialization, please use the "Undergraduate Schedule of Studies Change Request" form and submit it to Undergraduate Program Services.

It is the student’s responsibility to ensure that the prerequisites have been satisfied for any course selected. Failure to do so will result in registration in the course being denied unless a "Course Requisite/Restriction Waiver" form, showing instructor approval, is presented to Undergraduate Program Services along with the "Undergraduate Course Request" form. Students who select a course for a future semester and who fail or drop the prerequisite(s) for the course in the current semester must drop the course. A replacement may be added during the add period.

A student may not register for a course in which pass standing (or higher) has been achieved on a previous course attempt unless so directed by the appropriate Academic Review Sub-Committee.

Diploma courses are available only to students registered in one of the Associate Diploma programs. Degree students who register in Associate Diploma courses will have the courses dropped from their record.

Students enrolled in the D.V.M. program are not normally sent an "Undergraduate Course Request" form. However, where changes to the required schedule of studies are necessary, students must indicate the course changes on an individual basis with their program counsellor and submit the change to Undergraduate Program Services, Office of Registrarial Services.

Students not currently registered must contact Undergraduate Program Services prior to the deadline dates if course selection is to be possible. Students missing the deadline dates will have to add their courses during the add period.
Departmental Advisor's Responsibilities

All advisors should be familiar with any course restrictions that apply to courses in their department.

Advisors should be prepared to help students plan a course program with emphasis on meeting specialization and program requirements for graduation.

Advisors should approve the overall course program where appropriate. Refer to Section VII - Academic Advising.

Program Counsellor's Responsibilities

A counsellor may withhold program approval if any of the following applies:

1. the student has not taken the necessary prerequisites or has not selected the necessary corequisites;
2. the program requirements stated as such in the Undergraduate Calendar are not observed;
3. the selection does not conform with decisions concerning the student that have been reached by the Admissions and Academic Review Sub-Committees.

A student wishing to take more than the normal number of credits must have the approval of the appropriate dean or designate. Refer to Section VII - Academic Advising.

Registrar's Responsibilities

To coordinate and prepare all course selection information for distribution to all in-course students and to receive all completed "Undergraduate Course Request" forms.

To produce course counts based on the course selection material received and distribute the information to the appropriate department chair for his/her recommendations, regarding enrolment management.

Dean's Honours List

Effective Spring 1986, the University established a Dean's Honours List for full-time students which is recognized on students’ transcripts. (Prior to Spring 1986 colleges used different criteria and the designation was not recognized on transcripts.) In Fall 1996 the Dean's Honours List procedures were revised to include all undergraduate programs.

Effective Spring 1991 the Dean's Honours List procedures were extended to accommodate part-time study (see 2. below). Part-time students must contact their College Dean's Office to formally request that the Dean's Honours List designation be applied to their official transcript. As part of the request, the student must identify the semester to be considered for the listing (e.g. Fall 2000). Approved requests will be forwarded by the Dean's Office to the Associate Registrar, Undergraduate Program Services. The Dean's Honours List will include:

1. students taking full-time studies who have obtained a minimum semester average of 80.0%.
2. students who in part-time semesters (which do not need to be consecutive) attain a minimum cumulative average of 80.0% in a sequence of at least 2.00 credits. All credits will be counted and the designation will appear under the last of the semesters making up the average, and in the graduating semester of students who have maintained a cumulative average of 80.0% since their last Dean's Honours List designation.
3. a student with a deferred condition, or a mark not received, or the first part of a two semester course in progress, will not be evaluated for placement on the Dean's Honours List until the academic record for that semester has been completed.
4. a part-time student who transfers from program to program within the University should consult the appropriate dean's office about the eligibility for the Dean's Honours List.

Students who have consistently maintained a high average, but for whom a change in program, in part-time status in the graduating semester, or other anomalies have prevented placement on the Dean's Honours List, should consult the appropriate dean's office about eligibility for the Dean's Honours List.

Students with a high level of academic achievement on exchange programs will be considered for the Dean's Honours List based on a recommendation to the appropriate Dean from the exchange co-ordinator.

Note: The calculation of full-time and part-time status for students includes courses with credit (CRD) standing or pass (P) standing. These courses do not affect the calculation of the averages used to determine Dean's Honours. Within each period of consideration there must be at least one course with a numeric grade for a student to qualify for Dean's Honours List unless the student has been on exchange for that period.

Deferred Privileges

When students do not write a required final examination, complete a final assignment, or complete a work term report by the deadline, they may be eligible for a deferred privilege. A deferred privilege is the opportunity to complete the final course requirements after the end of the semester. The nature of the deferred privilege may take the form of either a deferred condition or a deferred examination. The Academic Review Sub-Committee grants deferred privileges on the basis of medical, psychological, or compassionate consideration (see Academic Consideration and Appeals). Deferred privileges are normally completed in the semester immediately following the semester in which the course was taken.

If the Academic Review Sub-Committee assigns a passing grade or credit standing (CRD) on the basis of medical, psychological, or compassionate consideration, a student may request a deferred privilege instead. The student must make the request in writing to Undergraduate Program Services, Office of Registrarial Services within 10 days of the release of the grades. The grade resulting from the deferred privilege will become part of the student's official academic record.

Instructors do not grant deferred privileges. They can only grant academic consideration for work that is due during the semester and cannot grant extensions beyond their deadline for submission of final grades. The instructor should note on the "Instructor's Recommendation" form any special circumstances relating either to the student or to the way the course was conducted (see Final Grades).

Undergraduate Program Services records the results of deferred privileges, and re-evaluates the student's academic record for continuation of study. If continuation of study requirements have not been met the Academic Review Sub-Committee will revise the student's academic standing.

Deferred Condition

Procedures

Deferred Condition

The instructor and/or the department determines the requirements and conduct of the deferred condition. The deferred condition may be a written test, an oral test, an assignment, a laboratory practical, or any other method of evaluation. The requirements for completion of the deferred condition are documented on the "Terms of Supplemental/Deferred Condition" form https://webadvisor.uoguelph.ca/sid/index.shtml and a copy of the form is retained by the instructor and the student. The department notifies the Schedules Section of the results of a deferred condition, normally within 7 days of its completion.

Students must normally complete a deferred condition by the end of the deferred examination schedule in the semester immediately following the completion of the course. The Schedules Section, Office of Registrarial Services, advises students in writing of the deadline for the completion of a condition. In addition, the Schedules Section directs the student to the “Terms of Supplemental/Deferred Condition” form https://webadvisor.uoguelph.ca/sid/index.shtml. It is the student’s responsibility to contact the instructor and make arrangements for the details of the condition.

The Schedules Section advises departments in writing of the students who have been granted deferred conditions. The memorandum specifies the date for completion of the deferred condition, and the deadline for the submission of final grades to Undergraduate Program Services. It is the responsibility of the department to advise the appropriate instructors of the deferred conditions that have been granted.

If the condition is not completed by the required date, a grade is assigned based on the term work completed as indicated on the original "Instructor's Recommendation" form. Students may be considered for an extension, or the assignment of a grade based on incomplete work, if medical or compassionate reasons prevail at the time of the scheduled condition. In this case, the student should consult with their program counsellor and may submit a "Request for Academic Consideration" form with documentation to Undergraduate Program Services, Office of Registrarial Services.

Deferred Examination

The Schedules Section, Office of Registrarial Services, schedules and supervises deferred examinations that are two hours in length. The Schedules Section notifies departments of the deferred examination schedule and advises the students of the date, time and location of their deferred examinations. The Academic Review Sub-Committees expect students to write deferred examinations during the deferred examination period that follows the end of the semester (refer to Section III—Schedule of Dates).

Students may request an extension, or the assignment of a grade based on incomplete work, if medical or compassionate reasons prevail at the time of the scheduled examination. In this case, the student must submit a Request for Academic Consideration with documentation to Undergraduate Program Services, Office of Registrarial Services. When a deferred examination is scheduled, the department must send one paper for each student granted a deferred examination in the course, plus one extra paper for the course to the Schedules Section, Office of Registrarial Services.

Procedures

Department Chair’s Responsibilities

To request a deferred examination from the individual instructor upon request from the Schedules Section, Office of Registrarial Services and to inform instructors of students who have been granted deferred conditions.

To forward the examination papers to the Schedules Section by the date indicated in the request letter.

To distribute the completed examination booklets to the appropriate instructor for marking.

In the case where the student is unable to make contact with the instructor to determine the nature of a deferred condition, take necessary steps to assist the student in determining the requirements for the condition.
To initial all grades submitted by instructors and forward them to the Examinations Clerk, Scheduling Section, Office of Registrarial Services, by the date indicated in the request letter.

**Instructor's Responsibilities**

In the case of a deferred condition, the instructor is to complete the "Terms of Supplemental/Deferred Condition" form, provide the student with a copy and keep a copy. The instructor must adhere to the deadlines for the completion of the condition and the submission of the final grades to the Schedules Section, Office of Registrarial Services.

**Registrar's Responsibilities**

Undergraduate Program Services informs the student and the Schedules Section of the academic review decisions and evaluates the continuation of study status when the deferred grades have been recorded.

The Schedules Section informs the department that the Academic Review Sub-Committee has granted a deferred condition or examination; informs students who have been granted a deferred condition that it is their responsibility to contact the instructor to arrange the condition; specifies a deadline for completion of deferred conditions; prepares a deferred examination timetable and notifies all students who have been granted a deferred examination; requests the deferred examination papers from the chair of the department; and collects the final grades.

**Student's Responsibilities**

When the Academic Review Sub-Committee grants a deferred condition, it is the student's responsibility to contact the instructor and present the "Terms of Supplemental/Deferred Condition" form upon notification. The student must contact the instructor immediately in order to be able to complete the condition prior to the deadline specified by the Schedules Section, Office of Registrarial Services. The deadline is normally the last day of the deferred examination period for that semester. The student should have the instructor complete the form stating the exact nature of the deferred condition. If the student cannot contact the instructor, he/she must contact the chair of the department offering the course. If the student does not make the required contact within the deadline specified by the Schedules Section, the University will assume that the student does not intend to complete the condition, and cancel the deferred privilege.

When a deferred examination is granted, it is the student's responsibility to appear for the deferred examination on the date and time designated on the deferred examination timetable.

**Dropping Courses**

All course drops from a student's program for a particular semester are to be completed by the dates specified in the Schedule of Dates (refer to Section III). Courses that are one semester long must be dropped by the end of the fortieth class day; two-semester courses must be dropped by the last day of the add period in the second semester. The dropping of a course after the deadline is allowed only in exceptional circumstances and requires the approval of the program counsellor or Academic Review Sub-Committee of the program in which the student is registered.

**Deadline Dates**

In all cases, if course changes are made, using WebAdvisor or the "Undergraduate Course Request" form, the changes must be made by the drop deadline (refer to Section VI–Schedule of Fees for the refund schedule).

The deadline dates for dropping courses (i.e. the fortieth class day) are noted in Section III–Schedule of Dates.

**Instructor Notification**

In some cases the instructor must be notified when a student is dropping a courses, for example, where students care for laboratory animals, or where supplies or books on loan must be returned. If instructor notification is required to drop the course, this will be specified on the course outline and announced in the first class meeting.

**Refunds**

Refer to Section VI–Schedule of Fees for refund schedule. Normally, changes to the effective date of dropped courses are only allowed for documented medical or compassionate reasons and require the approval of the program counsellor.

**Regular Courses**

Regular courses may be dropped from the start of the add period to the fortieth class day without approval except where instructor notification is required (see Instructor Notification above).

**Two-Semester Courses**

When dropping two-semester courses, both semesters of the course must be dropped. Students who wish to re-take a two-semester course must re-take both parts of the course. The drop deadline for a two-semester course is the last day of the add period in the second semester.

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**Examinations**

During the examination period, Saturday is considered a regular day. Examinations may be scheduled on public holidays. Students are advised to note Section III–Schedule of Dates. Students who encounter a conflict between a scheduled mid-term or final examination and a religious obligation (see Academic Accommodation of Religious Obligations) must contact the instructor-in-charge or the program counsellor to request that alternate arrangements be made. A listing of major religious holidays is available from the Office of Student Affairs.

**Mid-Term Examinations**

Term tests must not be scheduled during the last five class days prior to the final examination period. Exceptions may be granted by the Dean (or designates) for practical evaluations such as Laboratory or Studio tests, with the scheduling of such tests indicated in the course outline. Short quizzes which have been regularly scheduled part of the course and which are intended to review small amounts of material are not considered term tests and may be held during the last five class days.

Departments are urged by the Board of Undergraduate Studies to make every effort to schedule term tests and examinations in regularly scheduled class time. The Board recommends that faculty make every effort to accommodate students representing the University in extra-curricular activities when there is a conflict between those activities and scheduled tests or examinations held outside regularly scheduled classes.

The directors of schools and department chairs must apply the policy having due regard to the special needs of courses over which they have jurisdiction.

The Board of Undergraduate Studies has reaffirmed the commitment to maintain the 17:20 to 19:00 time slot free of academic activities as much as possible. However, from time to time approval may be given to scheduling classes or labs in that time slot. Requests for scheduling out-of-class mid-term examinations should also be restricted as much as possible to regular academic hours (8:30-17:20 and 19:00-22:00). In the event that appropriate space is not available during regular hours, the use of the 17:20-19:00 time slot may be approved.

Instructors are cautioned that if there is a scheduling conflict between a scheduled class for another course and the proposed time for the mid-term examination, the scheduled class takes priority and students with such a conflict must be accommodated.

All rooms for mid-term examinations are to be booked through the Reservations Clerk, Schedules Section, Undergraduate Program Services.

**Department Chair’s Responsibilities**

Department chairs shall:

- be responsible for the conduct of all term examinations.
- appoint an adequate number of invigilators to assist the instructor-in-charge.

**Instructor’s Responsibilities**

Faculty members:

- are urged to exercise discretion when requiring certification of illness and, in particular, are encouraged not to require certification of illness affecting semester work when the assessment in question constitutes a small proportion of the course grade, or when alternative means for carrying out the assessment are available.
- shall take an attendance record at each term examination. The attendance record is for the department's use and is not submitted to Registrarial Services.

**Final Examinations / Assignments and Final Week of Classes**

**Final Week of Classes**

Final term assignments or papers may be due in the last five class days prior to the final examination period. Due dates for these evaluations should be stated in the course outline.

Final assignments along with all necessary resource material should be available to students no later than the end of the 9th week of classes. Take-home examinations may not be due in the last week of classes.

Term tests must not be scheduled during the last five class days prior to the final examination period. Exceptions may be granted by the Dean (or designates) for practical evaluations such as Laboratory or Studio tests, with the scheduling of such tests indicated in the course outline. Short quizzes which have been regularly scheduled part of the course and which are intended to review small amounts of material are not considered term tests and may be held during the last five class days.

**Final Examinations (Regular, Take-Home and Other Format) and Final Assignments**

Where regular final examinations are to be given they must be given during the examination period. All regular final examinations shall be two hours in duration. The following guidelines for conducting final examinations have been approved by Senate:

1. Departments should indicate to ORS whether a final examination time slot is required for a course. Departments will indicate whether:
   a. the examination will be a regular, sit-down examination for which a room is required;
   b. the examination will be a take-home examination; or

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c. the examination will be in some other format (orals; computer exams; juried performance exams, etc.). Unless approved by the Department Chair, examinations for 1000 level courses will be in regular, sit-down format only.

2. The final examination period should be scheduled so as to provide a two day break between the last day of classes and the first day of examinations.

3. The final examination period consists of eleven days, except in the Summer semester, where it is eight days.

4. The periods scheduled for final examinations which are to be written in examination halls shall be all of two hours in duration. No regular examination held during the final dates scheduled for final examination periods shall be longer than two hours. (Note: Some DVM courses are exempted from this rule and require three hour exams.)

5. Where final examinations in either regular, take-home or other format are to be given they must be given during the final examination period.

6. The Office of Registrarial Services has determined the 9th day (6th day in the 12-week format summer semester; 4th day in the 6-week format summer semester) of the examination period as the final due date that may be assigned for take home examinations or exams given in other than regular, sit-down format. When using a take-home or other format final examination, departments will inform the Office of Registrarial Services whether they are using the 9th day (6th day in the 12-week format summer semester; 4th day in the 6-week format summer semester) of the examination period as the due date, or whether they are using an earlier date. This information must be provided to O.R.S before the beginning of the semester, and the due date must be noted on the course outline distributed at the first class meeting.

7. Faculty using take-home examinations will determine when the examination paper will be made available to students, but must allow students at least 72 hours between the date of issue of the exam and the due date. The date of issue of the examination and the due date must be included in the course outline distributed at the first class meeting. If a student’s time to complete a take-home examination is significantly lessened because of the number and timing of regularly-scheduled sit-down examinations, the instructor may grant an extension, provided the new due date is not beyond the second week of classes. Length of the extension will be at the instructor’s discretion and instructors are advised to give the student the new due date in writing. The date of issue of the examination and its due date must be included in the course outline distributed at the first class meeting. If the examination is to be handed out after the end of classes, the instructor will be responsible for arranging distribution and for ensuring that students have the appropriate opportunity to ask questions for clarification.

8. Final assignments or papers may be due either during the final examination period or in the last week of classes. In either case, the assignments along with all necessary resource material should be available to students no later than the end of the 9th week of classes and the due date and date of issue of the assignment must be included in the course outline distributed at the first class meeting. The Office of Registrarial Services has determined the 9th day (6th day in the 12-week format summer semester; 4th day in the 6-week format summer semester) of the examination period as the final due date that may be assigned for final assignments due in the examination period. When a final assignment used in lieu of a final examination is to be due in the examination period, the department will inform the Office of Registrarial Services whether they are using the 9th day (6th day in the 12-week format summer semester; 4th day in the 6-week format summer semester) of the examination period, or whether they are using an earlier date. This information must be provided to O.R.S. before the beginning of the semester and must be included on the course outline distributed at the first class meeting. Instructors who opt for an assignment to be due during the examination period, may not also include a final examination in their courses. The Office of Registrarial Services of the University is the final arbiter of the manner of conducting examinations and receives general directives on policy from the Provost and Vice President (Academic), and the Board of Undergraduate Studies.

The Office of Registrarial Services will, in cooperation with the appropriate examiners, establish special examination procedures as and when needed, for students who have temporary or permanent physical disabilities. Medical opinion shall be sought whenever there is doubt about the extent of the disability.

Student’s Responsibilities

1. Students who drop and add courses are required to consult the examination timetable in order to avoid conflicts in examination times. Written approval must be obtained from the dean or director and the instructor-in-charge of the course to register in courses that have conflicting examination times.

2. ACADEMIC CONSIDERATION IS NOT GIVEN TO STUDENTS WHO MISREAD PUBLISHED TIMETABLES.

3. Students must consult the “Final Examination Seating Plan”, which is posted in various locations throughout the University and available on the web via WebAdvisor one week prior to the commencement of final examinations, for seating locations.

4. Students must be seated on entering the examination hall. Until at least 1 hour after commencement of the examination, no candidates shall be permitted to leave except under supervision. If a candidate is not present within the first hour of the commencement of the examination, the candidate shall not be permitted to write the examination.

5. No person shall be allowed in the examination hall during the course of examination except the candidates concerned and those supervising the examination.

6. No book, paper, or other aids shall be used during the examination except by permission of the instructor-in-charge. Students shall dispose of their bags and knapsacks by placing them on the floor beneath their chairs, and any books not classified as permissible aids shall be placed along the sides of the room.

7. If provided, students must complete the examination attendance card at the beginning of the examination and place it beside their University of Guelph identification card at the front of the table. The card will be signed at the time of collection.

8. Students who have completed the examination will be allowed to leave their seats after the first hour has elapsed and after their examination books have been collected. To minimize the disturbance to students who have not yet completed their examinations, no student shall leave the examination hall during the last 15 minutes of the examination. At the conclusion of the examination period, students must remain seated until all papers have been collected and they are dismissed by the instructor-in-charge or the co-ordinator in the Athletic Centre.

9. No smoking shall be allowed in the examination hall.

10. When more than one book is handed in, students shall number each book and indicate on the cover of the first book the total number of books used.

11. No writing within the answer book is permitted after the instruction to stop writing has been given. The instructor-in-charge may refuse to accept the paper of any candidate who fails to observe this time limit.

12. Candidates shall not communicate with one another by writing, by signs, by words, or in any manner whatsoever while examinations are proceeding.

Department Chair’s Responsibilities

1. Responsible for the security of the examinations printed in the department for the instructor.

2. Printing the required number of copies for each examination.

3. Responsible for distributing the copies of the examination to the instructor on the date set for the examination.

4. Distributing a copy of the “Final Examination Seating Plan” to each instructor concerned. The timetable is sent from the Office of Registrarial Services in course number sequence approximately one week prior to the final examinations.

5. Responsible for the conduct of all examinations held in their department by their faculty. They shall be responsible for appointing invigilators. The instructor-in-charge of the examination shall be the faculty member responsible for the course and the setting of the examination or a designate.

6. To distribute the examination attendance records provided by the Office of Registrarial Services.

7. To appoint invigilators for examinations under the direction of the Office of Registrarial Services (2 invigilators for a class of 20-25 students and 1 additional invigilator for each additional 50 students in a class, thus a class of 125 students should have 4 invigilators).

8. Completing the examination information sheets by the requested deadline dates, and informing the Schedules Section, Office of Registrarial Services, regarding any requests for changes.

Instructor’s Responsibilities

1. The faculty member responsible for the course and the setting of the examination, or a designate, shall be the instructor-in-charge for that course.

2. If it becomes necessary to change an examination time or to add a final examination, the instructor-in-charge of the course is required to contact the Schedules Section, Office of Registrarial Services, and once a time is set, obtain the written approval of all students.

3. To advise the Schedules Section, Office of Registrarial Services, prior to the examination if an “open book” examination is to be written; otherwise, it will be considered “closed book”.

4. To be present at the examination room thirty minutes prior to commencement of the examination and to be responsible for distribution of examination papers, attendance cards, if used, and other authorized materials.

5. To be responsible for the taking of attendance during the first hour of the examination period. (Attendance cards are used in the Athletic Centre and class lists in other locations.)

6. To be responsible for arranging the pick-up of examination books and papers and comparing the number of examinations collected to the number of attendance cards or student signatures collected. These records should be retained by the department for a period of one semester.

7. To ensure all examination books are securely packaged.
8. The instructor-in-charge and his/her invigilators shall not allow any student to enter the examination room after the first 60 minutes or allow any student to leave during the first 60 or last 15 minutes of the examination period.

9. Include all instructions regarding the examination on the examination paper, i.e., writing on every other line, writing on the right hand pages of the book. No verbal instructions can be made at the examination hall with the exception of corrections to printed instructions and material.

10. Where a student does not write the final examination, the instructor shall follow the procedures outlined under Academic Consideration in this section of the calendar.

11. Instructors who wish to hold examinations in other than sit-down, regular formats should discuss procedures with their department chairs.

Registrar's Responsibilities

1. A “Departmental Final Examination” form is distributed by the Schedules Section, Office of Registrarial Services, to all department chairs approximately six weeks prior to the semester to which it applies.

2. The Final Examination Timetable is computer prepared and is based on student course selections made during the course selection period. The Final Examination Timetable is available to the students at least 2 days prior to the start of classes.

3. Approximately 6 weeks prior to the start of final examinations, a Final Examination Seating Plan Information Sheet is distributed by the Schedules Section, Office of Registrarial Services, to the department chair. The department chair is asked to have the form completed by the deadline date in order that a seating plan can be arranged.

4. Under normal circumstances, changes to the published examination timetable are not allowed.

5. To provide each instructor-in-charge with an examination attendance record in the form of a print-out of all students registered in the course or attendance cards for those examinations being written in the Athletic Centre.

6. Examinations held in the Athletic Centre shall be under the direction of the Office of Registrarial Services or designate who shall be the co-ordinator responsible for the conduct of examinations during the final examination period.

7. The co-ordinator will start and end the examination.

8. The co-ordinator shall assist the instructor-in-charge to ensure that no student enters the examination room after the first 60 minutes or leaves during the first 60 minutes or the last 15 minutes of the examination period.

9. The Office of Registrarial Services shall prepare a set of guidelines for the instructor-in-charge and invigilators which will assist them in carrying out their duties in the examination rooms.

10. Students in distance education courses who live further than 170 km from campus will write their final examination at a selected off-campus examination site close to where they live. For further information please contact the Office of Open Learning at (519) 767-5000.

Policy on Student Access to Final Examination Materials

Final examination papers and final assignments are to be retained by faculty members for a period of one semester.

Printed or written materials directly related to examinations conducted in the final examination time period published in the Undergraduate Calendar, or related to final assignments shall be made available to a student, upon submission of a written request to the department chair. The request shall be submitted by the fifth class day of the next semester.

Printed or written materials to be made available include the examination question paper, the marking scheme keyed to desired responses to questions, where appropriate; the student's response to the examination questions; and records taken by examiners during oral or any other examination. Faculty members are encouraged to discuss openly with the student any questions raised. The department chair will make the necessary arrangements for student access to the material. When a large number of requests are received in connection with a specific course or when a faculty member is on leave it may be necessary for the department chair to delay access and make special arrangements, e.g., the posting of the marking scheme on a bulletin board, the scheduling of a special meeting at which the faculty member will review the examination, etc.

Exchange Programs

Exchange programs between the University of Guelph and other institutions are defined by the terms of formal exchange agreements. A copy of each agreement must be approved by the Associate Vice-President (Academic) and registered with the Associate Registrar, Undergraduate Program Services.

Students participating in exchange programs pay full-time tuition fees at their home university, but select their courses at the university they will be visiting. The grades are recorded there and forwarded to the home institution at the end of the semester or academic year. Each institution participating in an exchange program designates a co-ordinator who will be responsible for arranging the details of the exchange. Students are advised not to leave on exchange without the written approval of the receiving university.

Students must pay their full-time fees and select their courses prior to leaving on exchange. "Exchange Program Course Selection Request" forms are available at the Centre for International Programs (C.I.P.) Office or from Undergraduate Program Services, Office of Registrarial Services. Details on specific exchange programs can be found in Section V—International Study.

Courses taken on exchange will appear on the transcript as non-specific University of Guelph courses and will be graded using the Outstanding/Pass/Fail format. Grades will be determined by the Study Abroad Manager using an official transcript submitted by the host institution.

Informal exchange programs where a formal agreement does not exist must be conducted by means of a letter of permission and tuition fees will be paid to the receiving institution (refer to Section VI—Schedule of Fees).

Failed Courses

In general, a student who is eligible for continuation of study in the program but has failed to gain standing in one or more of the courses attempted will be required to repeat the course(s) or take an alternative credit. However, the University recognizes that there may be cases where it is unreasonable for the student to repeat the course to make up for the lost credit.

Therefore, the Academic Review Sub-Committee may, if appropriate and feasible, and only under special circumstances, allow a student the opportunity to gain credit for a failed course by granting a supplemental privilege. It is unlikely that any student with a final grade of less than 40% would meet the requirements of the granting of a supplemental privilege. The decision to grant the privilege will normally be made in consultation with the instructor and a review of the student’s course performance during the semester. The student must submit a Request For Academic Consideration form to request a supplemental privilege.

The Academic Review Sub-Committees will consider granting a supplemental privilege in the following special circumstances:

1. the course is failed in the graduating semester (if a supplemental privilege is granted and successfully completed, convocation will most likely be deferred until the following semester);

2. the failed course is not available to the student within the following three semesters, or within a time period that includes the graduating semester;

3. the course is of such a nature that there is no permissible substitute or alternative available to the student within the following three semesters, or within a time period that includes the graduating semester;

4. the course is a required two-semester course that cannot be taken and completed within the following three semesters, or within a time period that includes the graduating semester.

The original failing grade will remain on the student's academic record. A notation of "P" or "F" will be shown beside the original failing grade to show that a supplemental privilege was granted and whether the outcome resulted in credit (P) or not (F).

Multiple Failure Limitations

Students should note that some programs limit the number of times a student may repeat failed courses. A student may not be permitted to continue in his/her major and/or program should they fail the same course, or its equivalent, multiple times. Multiple failure limitations are noted in Program Requirements by Degree Program in Chapter X—Degree Programs.

Grades

Grading System

Two-semester courses constitute two course attempts and will appear as such on the student academic record. These courses are indivisible and the same grade will apply for each attempt. A refined grading system was approved by Senate on May 21, 1991 effective Spring 1992 as follows:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Numerical Range</th>
<th>Letter Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>A+</td>
<td>90-100%</td>
<td>Outstanding (Pass)</td>
</tr>
<tr>
<td>A</td>
<td>85-89</td>
<td>C</td>
</tr>
<tr>
<td>A-</td>
<td>80-84</td>
<td>D+</td>
</tr>
<tr>
<td>B+</td>
<td>77-79</td>
<td>D</td>
</tr>
<tr>
<td>B</td>
<td>73-76</td>
<td>D-</td>
</tr>
<tr>
<td>B-</td>
<td>70-72</td>
<td>F</td>
</tr>
<tr>
<td>C+</td>
<td>67-69</td>
<td></td>
</tr>
</tbody>
</table>

Courses taken on exchange are graded using the Outstanding/Pass/Fail alternate grading system (refer to Exchanges, Section V—Special Study Opportunities; Exchanges). In addition, selected University of Guelph courses, approved by the Board of Undergraduate Studies, will use this alternate grading system.

Alternate Grading System

OP   Outstanding (Pass)
Resolution 5
That the methods and/or timing of evaluation as indicated on the course outline should not be changed after the first class meeting except under strictly adhered to conditions. Notice of proposed change and of the class at which consent is to be sought, must be given at a previously scheduled class. Where the change is supported by the instructor and is consistent with University policies and procedures such change may be enacted with the unanimous consent of students. If unanimous consent of the students has not been obtained, the change may be enacted only with the approval of the chair of the department and only if alternative and equitable accommodation is available to students opposed to the change.

Resolution 6
That all term tests, assignments, laboratory reports, etc., should be returned to, or discussed with students, without undue delay and in any case before the last day of the examination period. If the material is necessary for the preparation of the final examination, it must be returned or discussed as soon as possible and in any case no later than three days before the examination.

Resolution 7
That departments must coordinate multiple section courses in terms of course content, evaluation procedures and final grades. Department also refers to schools and to colleges (where multiple section courses are offered by, or coordinated by the Office of a College Dean).

Resolution 8
That each department must keep under continual review its grading procedures and matters that relate to academic standards to make sure the University's policies are being applied.

Resolution 9
That normally all courses at the 1000 and 2000 levels shall have final examinations and that exceptions require the approval of the Chair of the Department.

Resolution 10
Senate resolved on June 21, 1977 that in determining grades for written assignments the instructor should take into consideration the student's ability to use correctly and effectively the language appropriate to the assignment.

Resolution 11
Senate resolved on March 21, 1978 that the chair should review, prior to the commencement of classes, the manner in which a faculty member intends to conduct a course and to determine final grades. If the chair disagrees with the faculty member's intention or subsequently with the implementation of the stated intentions, the chair will discuss his/her concerns with the faculty member. If agreement cannot be reached, the matter will be referred to an appropriate department committee which will advise the chair in reaching his/her decision. The advice may include a recommendation on examination procedures.

Submission of Final Grades

General Information
Undergraduate Program Services, Office of Registrarial Services, distributes the "Grades Due Report" forms to the departments one week prior to the examinations period for the semester. The "Grades Due Report" specifies the deadline date for submission of grades to Undergraduate Program Services, Office of Registrarial Services.

Instructor's Responsibilities
The instructor (department) is to retain all final examination papers and term assessments not returned to students for a period of one semester. The "Grades Due Report" form distributed by Undergraduate Program Services, Office of Registrarial Services, will carry the due date for grades for each course section. The due dates are established in accordance with the regulations of the Senate.

Instructors must submit Undergraduate Program Services by the deadline stated on the "Grades Due Report". The early submission of grades will assist in their processing. Grades that are not received prior to the release of student grades are reported as "MNR".

Resolution 12
That instructors are not to use predetermined, arbitrary distributions in the assignment of grades in individual courses.

Resolution 13
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Class lists are updated regularly on the Class List Web-site for departmental download. Lists downloaded from the Class List Web-site list all officially registered students in a class. The department must explain any changes to the list, e.g., in the case of:

1. A student whose name is not on the list, but who has been attending class.
2. A student whose name appears on the list, but for whom the instructor has no record.

Instructors must not grant an extension of time to any student beyond the final date for submission of grades for that course. Instructors must report students who do not satisfy course requirements by assigning a grade of "INC" and noting incomplete work on an "Instructor's Recommendation" form.

Instructor's Recommendation Form

Instructors should only submit grades for students who have completed their final work for a course. If a student does not complete a final examination or final assignment, the instructor must enter "INC" (incomplete) on the "Grade Report" form and complete an "Instructor's Recommendation" form for the student. The "Instructor's Recommendation" form is available from the chair of the department. Departments must submit the "Instructor's Recommendation" form(s) along with the "Grade Report" form to Undergraduate Program Services, Office of Registrarial Services. The Academic Review Sub-Committee will contact the faculty and/or department chairs at the time of meetings if this procedure is not followed. The instructor's recommendations assist the members of the Academic Review Sub-Committee in making their decision. The instructor must complete all sections of the form for each student reported.

Student's Responsibilities

Students must have all final assignments completed and submitted to instructors by the deadlines indicated in the course outline. Instructors cannot grant extensions beyond the deadline for submission of grades. Students who are unable to satisfy the submission deadlines established by the instructor and who wish special consideration for medical, psychological or compassionate reasons should request academic consideration (refer to Academic Consideration and Appeals).

Department Chair's Responsibilities

The chair of the department signs student grades in the designated area on the "Grade Report" form. The department chair's signature indicates that he/she believes that the grades for that course adhere to the academic regulations of Senate. If the chair has reason to believe that the academic regulations of Senate have not been adhered to, he/she will consult with the faculty member and, if necessary, the college dean. If the chair, after such consultation, still believes that the academic regulations of Senate have not been adhered to, he/she must submit the grades without approval through the college dean to the Provost and Vice-President (Academic). The grades must be accompanied by a complete report. The Provost and Vice-President (Academic) will act to ensure that the academic regulations of Senate are adhered to.

The department chair should be available for consultation during the meetings of the Academic Review Sub-Committees. The Board of Undergraduate Studies strongly encourages each chair, at his/her discretion, to conduct a periodic review of the methods of assessment, class averages, distribution of grades and failure rates in courses offered by that department to ensure that grade abuse does not occur (refer to Final Grades).

Program Counsellor's Responsibilities

The program counsellor reviews the list of "INC" (incomplete) courses, matching medical documentation, requests for academic consideration, and counselling files (refer to Deferred Privileges). The program counsellor in conjunction with the Academic Review Sub-Committee assigns deferred privileges where appropriate and forwards decisions to Undergraduate Program Services, Office of Registrarial Services.

Registrar's Responsibilities

Undergraduate Program Services records the examination results; notifies students of their grades via WebAdvisor; notifies program counsellors of incomplete grades; and records deferred privilege decisions (refer to Deferred Privileges).

Release of Final Grades

University grades are official on the day that they are issued to students. It is the responsibility of the Office of Registrarial Services to release the grades to the student and to record the grades on the student's official University transcript.

All grades are available through WebAdvisor. Students who require an official copy of their grade report can request an official transcript upon payment of the transcript fee. Grades for students who have been advised by Student Financial Services, Office of Registrarial Services, that they are on academic sanction will not be released by Undergraduate Program Services until notification/authorization is received indicating that the account has been cleared to the satisfaction of Student Financial Services. To receive grades, students must clear their sanction by the last day of classes. Students who are required to withdraw will be notified at their mailing address.

Summer Session grades are released approximately two weeks after the conclusion of examinations. The grades and the continuation of study status are considered to be unofficial until the end of the Summer Semester.
Graduation

A. Baccalaureate Programs

A student normally must be registered as a degree student in the program for the degree being awarded. However, a student registered in an honours program may apply to graduate from a general program in the same degree or a different degree, provided that all of the conditions for graduation for that degree have been satisfied using the calendar that is in effect at the time of application. A student with a non-degree program type is not considered for graduation; however, the student should check with his/her program counsellor for information.

Up to 50% of the requirements for a degree-credit certificate can be applied towards a degree program specialization in order to hold both a degree with a specialization and a specialized certificate.

1. Program and Calendar Requirements

The conditions for graduation are regulated by the degree programs. Program specific conditions for graduation are outlined in Section X—Undergraduate Degree Programs. Students must satisfy the schedule of studies requirements for the calendar (http://www.uoguelph.ca/undergrad_calendar/) in effect at the time of their last admission to the program or at the time of any subsequent change in majors or areas of concentration. Where students select minors or areas of emphasis, the calendar used to determine the schedule of studies is the same as the calendar used for the major. Changes in minors or areas of emphasis do not necessarily affect the calendar used to determine the schedule of studies. Students may declare a schedule of studies from an alternate calendar if program approval is obtained.

Students who are on suspension for academic misconduct will not be permitted to graduate during the period of the suspension.

2. Academic Residence Requirements

i. At least 5.00 of the credits required for graduation by the student's program must be taken at the University of Guelph.

ii. At least 60% of the 3000 and 4000 level courses required for graduation must be taken at the University of Guelph.

University of Guelph courses include courses taken on exchange and on study abroad programs. Letter of permission courses are not included.

3. Honours Equivalent

Students from the University of Guelph or another university may upgrade a degree from the general program to the honours program to obtain an Honours Equivalent recognition. Students may also upgrade a degree from the honours program by the completion of an additional specialization to qualify for the Honours Equivalent recognition. These students must be readmitted to an honours equivalent program. All previous University of Guelph credits are eligible for consideration toward the equivalent degree from the honours program.

To be granted an Honours Equivalent, students must satisfy the University of Guelph residence requirements. In addition, students must satisfy the conditions for graduation for the specified honors program using the calendar that is in effect at the time of admission into the honors equivalent program. Normally, all degree program regulations will apply to the Honours Equivalent specialization.

The students who are granted the Honours Equivalent designation do not participate in a convocation program, but have the designation shown on their transcript. The fee in effect at the time of application is the amount of the degree/ diploma parchement. Although the Office of Registrarial Services will attempt to send an e-mail to every potential graduate inviting them to apply to graduate via WebAdvisor for Students (My Application for Graduation), it is the student’s responsibility to ensure that they submit their application for graduation by the published deadline dates in Section III—Schedule of Dates. Specific applications details are as follows:

- **Application for a Certificate or Diploma**
  - A student who is registered in the General Studies program or the non-degree program and who expects to complete the requirements as set down in Section XI of the calendar for one of the certificate or diploma programs, should submit an "Application for Completion of Certificate or Diploma" form available from the Convocation Clerk, Undergraduate Program Services, Office of Registrarial Services.

- **Application for Graduation from Degree Programs**
  - An e-mail inviting students to apply to graduate via WebAdvisor for Students (My Application for Graduation) will be sent to each student registered in a general degree program when his/her completed plus inprogress credits equal 15.00 credits or more; and to students registered in an honours degree program when their completed plus inprogress credits equal 20.00 credits or more. All other students with an active academic program who wish to apply to graduate may access ‘My Application for Graduation’ on WebAdvisor for Students.

Students who are not currently active students must submit a hard-copy Application for Graduation form, accompanied by the appropriate fee. This application form and instructions for the completion of the application are available at http://www.uoguelph.ca/egweb/publications/index.shtml. It is the responsibility of the student to submit the completed form prior to the published deadline date.

- **Application for Honours Equivalent**
  - A student who is registered in an honours equivalent program who expects to complete the requirements as set down in the calendar for one of the honours programs, should submit an "Application for Completion of Honours Equivalent" form available from the Convocation Clerk, Undergraduate Program Services, Office of Registrarial Services. The same deadlines for applications to graduate apply to the applications for honours equivalent.

**Chair’s Responsibilities**

The department chair receives both the Academic Evaluations for all students who have applied for a degree with a specialization administered by that department and a listing of those students. The department chair (or designate) must review these records to determine if each student has satisfied:

1. general University requirements,
2. overall program requirements and
3. specialization requirements.

Each check is to be reported on the form supplied, and the form is to be forwarded to the program counsellor by the date specified on the accompanying memorandum. If an applicant satisfies the requirements for the degree, or diploma sought, Registrarial Services will report the name of the student to the Provost and Vice-President Academic. If an applicant fails to satisfy any requirement(s), Registrarial Services will inform the student of that decision.

**Registrar’s Responsibilities**

Undergraduate Program Services, Office of Registrarial Services initiates an "Application for Graduation" process for the appropriate group of regular and special students. Undergraduate Program Services processes those applications received prior to the deadline and forwards a confirmation of both the receipt of the application and the information supplied by the student and advises students of the date and time of the convocation ceremonies.
Undergraduate Program Services forwards Academic Evaluation and check sheets to department chairs to obtain decisions on eligibility of the applicants. Undergraduate Program Services informs students not approved by the departments of the rejection and the reasons for it.

The Registrar will present a list of all recommended graduands to the Provost and Vice-President (Academic) for approval.

D. Standing on Graduation

Standing on graduation is noted only for graduates from the honours programs as follows:

Degree with Distinction - Cumulative average of 80% or higher.
Degree with Honours - Cumulative average of 70-79%.
Degree with Standing - Cumulative average of less than 70%.

Standing is only based on the internal University of Guelph academic record. For the DVM Program standing on graduation is based on the average of the marks received for those courses completed after admission to the program.

E. Notation on Transcript

Official transcripts from the University of Guelph will not show that a degree has been conferred until after the convocation.

Letters of Confirmation of Enrolment

A student who requires a letter confirming attendance at the University in a given semester should make this request to Undergraduate Program Services, Office of Registrarial Services.

Letters of Confirmation of Graduation

A students who requires a letter confirming graduation from the University should make this request to the Convocation Clerk, Undergraduate Program Services, Office of Registrarial Services.

Letters of Permission

A student at the University of Guelph who wishes to enrol in a course for credit at another institution and have that course considered as a credit toward a University of Guelph degree, must complete a “Request for Letter of Permission” form, available from the program counsellor, and obtain the appropriate approvals as indicated on the request form, prior to applying for admission to the other institution.

Credit for successful completion of such courses will be granted at the University of Guelph if a letter of permission has been presented to the Office of Registrarial Services prior to the student's enrolment at the other institution. A student taking a course on a letter of permission is responsible for ensuring that the other institution forwards the official transcripts directly to Undergraduate Program Services, Office of Registrarial Services. If the transcript for the course taken on a letter of permission is not received by the 20th day of the semester following completion of the course, a grade of "F" will be entered on the student's internal academic record.

Students are required to complete the courses specified on the "Letter of Permission" during the semester(s) specified on the "Letter of Permission". If the student registers in additional semesters or courses that are not approved by the University of Guelph, the student must apply for readmission.

Withdrawals or non-registration in courses taken on a letter of permission must be verified by official documentation from the other institution. Any changes in the courses taken must have the appropriate approvals from the University of Guelph.

All courses for which letters of permission have been granted, will be included in all academic records, but not in the official transcript of the University of Guelph. These courses will not count as course attempts under the continuation of study regulations. Courses taken on a Letter of Permission will not count in the semester average or the overall academic average.

Students do not normally qualify for a letter of permission in the final semester of their degree program.

Caution: when selecting courses to take on Letter of Permission you should be aware that you may not be able to get into the courses selected. For instance, courses may be full, may have been removed from the schedule, or may conflict with other courses. For this reason, you are encouraged to select more courses than needed but indicate clearly on the Request for Letter of Permission form the number of courses that will be taken. If you need to take a course not listed on the form, you should make every effort to contact your program counsellor in advance of registering in another course in order to obtain approval for the equivalent credit. Departments reserve the right to deny credit equivalency to a course taken without prior approval.

Priority Access Courses

In cases where enrolment demand habitually exceeds course capacity and there is demonstrated need to restrict access to a particular cohort of students on a priority basis, departments may request the implementation of course restriction rules to ensure priority access to the appropriate student group(s) during the course selection process. The system will provide a message at the time of course selection for students who do not meet the enrolment criteria. In special cases the department may override the restriction by authorizing entry to the course with a signature on a “Course Waiver Request” form using the “Course Restriction Waiver” box.

Departmental requests for course restriction rules must be directed to the Co-ordinator of Undergraduate Curriculum who will determine if the request is acceptable and will then work with the department or school to develop the appropriate enrolment criteria and confirm that the restriction can be monitored. In general, course restrictions should be clearly defined in the calendar course listings so that students are advised in advance of the intended audience for the course.

New restrictions or changes to existing restrictions must be approved prior to the course selection period in which they are to be implemented.

Prior Learning Assessment

Prior Learning Assessment (P.L.A.) is a mechanism whereby students who have acquired substantial experience in a non-traditional environment have an opportunity to challenge whether such learning is equivalent to a course(s) offered at the University. Note: P.L.A. will only be available to a student if sufficient evidence is provided that the course material was acquired outside a degree program at a University. A request to challenge a course that has already been attempted at university will not normally be granted.

P.L.A. is not open to students who simply wish to challenge a course. Students will be required to sign a contract stating that the learning occurred other than in a university course. Not all courses are appropriate for challenge. Each department has the responsibility of determining which of its courses may be subject to a P.L.A. challenge. The challenge process could include one or more assessment methods, including standardized tests, written and/or oral examinations, performance evaluations, interviews, and portfolio assessment. All these assessments require that the individual demonstrate, to a qualified faculty member(s), that predetermined knowledge and skills have been acquired.

The maximum number of credits a student can challenge is 5.00 for degree programs, or 30% of the certificate requirement for open learners. Credits acquired through P.L.A. will be assigned credit status (CRD) and will be on the official transcript.

Students wishing to challenge a course(s) should contact Undergraduate Program Services to obtain an application form. A request must include a clear statement as to the course(s) the student wishes to challenge, an explanation of how the knowledge necessary for the course was gained, and any relevant supporting documentation to validate the claim. Requests will be forwarded to the appropriate department(s) for evaluation. Upon receipt of the response from all the departments concerned, Undergraduate Program Services will inform the student which, if any, courses have been approved for challenge.

If a challenge has been granted, the department will determine the nature of the assessment and the deadline by which time the work must be complete. It is the student's responsibility to contact the department with respect to the details of the assessment within three weeks of being informed by Undergraduate Program Services of being granted the privilege.

Upon completion of the assigned task(s), the department will inform the Office of Registrarial Services as to the student's success or failure of the challenge.

Those students (a) whose application for a challenge is reviewed by the faculty members of the department concerned, and who are subsequently denied the opportunity to challenge, or (b) who fail a challenge examination, may appeal the decision first to the chair of the department, and subsequently, if necessary, to the dean of the college.

Chapter VI Schedule of Fees - outlines the applicable fees for Prior Learning Assessment.

Readmission

Previously registered students must apply to Admission Services for readmission under any of the following conditions:

1. If they were required to withdraw from their program for a period of two or more semesters.
2. If they were suspended from the University for academic misconduct.
3. If they have graduated from this University and wish to register in order to take additional courses.
4. If they registered in a program at another post-secondary institution and wish to return to the University of Guelph.
5. If they have not registered at the University of Guelph for six or more consecutive semesters.
6. If they are attending the University of Guelph on a letter of permission and wish to continue past the term of the letter of permission agreement.

Readmission to a program at the University of Guelph is not automatic. Students who are required to withdraw must apply for readmission to the University after completing the minimum two semesters of rustication. Students should consult Section IV - Admission Information regarding appropriate admission requirements and deadline dates.

Applications for readmission should include a statement which outlines the basis for readmission. Criteria used for readmission may differ by academic program. Students considering readmission should consult with the appropriate program counsellor regarding procedures and criteria for readmission to that program.

Students requiring readmission must apply to Admission Services, Office of Registrarial Services, University Centre, Level 3. Applications for readmission must be submitted by the deadline date established for each semester (see Section III - Schedule of Dates). An
application fee is payable at the time the application is submitted (see Section VI--Schedule of Fees).

On December 19, 1995, the University Senate approved the following policy for the granting of credit while on rustication:

1. Students who have been required to withdraw, and who take university credit courses during their rustication period, will be eligible for up to 1.00 credit (one full-year course) provided they meet the criteria for readmission and the criteria for the transfer of credit. Students who subsequently are re-admitted or who transfer to another program or who become eligible to proceed through appeal must report this to Undergraduate Program Services, Office of Registrarial Services to have their registration status confirmed and add their courses.

2. Students who take university courses after the two-semester rustication period may transfer all these credits provided the student meets the criteria for readmission and the criteria for the transfer of credit. Students who have been suspended for academic misconduct will not receive any credit for courses taken during the suspension period.

Note: This policy applies to any university credit course taken during the rustication period, be it distance or on-campus, taken in open learning programs from either our university or at another university.

Registration
A student is considered as registered for a particular semester only when courses to be attempted for that semester have been reported to the Registrar no later than the end of the add period and financial arrangements, satisfactory to Student Financial Services, have been made for the associated tuition and other fees. Coincident with the registration process, students may complete other business arrangements with the University such as reporting of address information, residence payments, meal card contracts, parking permits, and receipt of identification cards.

In-Course Students
All in-course students must complete the registration procedures prior to the deadline dates as published in Section III--Schedule of Dates.

While advance billings will be available on WebAdvisor, to students who have indicated an intention to register in a particular semester, it is the responsibility of all in-course and returning students to ensure that satisfactory arrangements are made with Student Financial Services prior to the deadline. Students who have not received the advance billing should contact Student Financial Services in order to make payment. Arrangements for registration after the deadline date will be assessed an additional late registration fee.

Students who are readmitted will be advised of registration procedures. Questions should be directed to Undergraduate Program Services.

Note: In-course students who complete the registration procedures are advised that this registration is conditional on their eligibility for continuation of study into that semester. A student who is required to withdraw will not be allowed to attend classes, the registration will be cancelled and an appropriate adjustment automatically will be applied to the student's account (see also--Withdrawal). The procedure is as follows:

1. Approximately 2-3 weeks before the deadline, a billing statement is on WebAdvisor, to students who have selected courses.
2. Students must make payment to Student Financial Services by the deadline. Payments received after the deadline will be assessed a late registration fee.

General System In-course Students (Fees)
The registration procedure is conducted through WebAdvisor. The registration procedure will allow all in course students to complete their financial arrangements with Student Financial Services before the upcoming semester. The billing form will reflect the course selection data, also your accommodation and meal plan status if available, and is to be returned with suitable arrangement to Student Financial Services. The deadline for payment is indicated in Section III--Schedule of Dates, of this calendar. Failure to meet the deadlines will result in an additional fee adjustment. Mailings by the University will be made to the University email account, the on-campus P.O. Box, and/or the mailing/home address per the University’s student address policy.

Registration is conditional on being eligible to continue in your program of study. Students who are required to withdraw will not be allowed to attend classes as their registration will be cancelled immediately and a full refund of fees will be made as soon as possible. Students required to withdraw who subsequently are re-admitted or who transfer to another program or who become eligible to proceed through appeal must report to Undergraduate Program Services, Office of Registrarial Services to have their registration status confirmed and add their courses.

Registration may be completed by one of the following methods:

• On receipt of payment. DO NOT SEND CASH IN THE MAIL.
• An approved “Staff Registration and Tuition Waiver Request” form (for qualified full-time University employees only).

PAYMENTS RECEIVED THROUGH THE MAIL MUST BE POST-MARKED ON THE DEADLINE DATE OR EARLIER TO AVOID THE ASSESSMENT OF A LATE REGISTRATION FEE.

Parking Payments
Students wishing to pay for a parking permit are asked to include the appropriate payment in accordance with the schedule in Section VI--Schedule of Fees with their total payment submission. Students who comply with this procedure will receive their parking decals in the mail prior to the commencement of classes.

Changes to Preprinted Calculations
Students who have changed their mind concerning the number of credits they wish to take are advised to write the correct amount on the billing form. Please refer to the fee schedule included with your billing form.

Changes to residences calculation, including meal plans, must be cleared through the Student Housing Services or Hospitality Services.

Cancellation/Withdrawal Procedure
If you have paid and wish to cancel your registration before classes begin please call Undergraduate Program Services, Office of Registrarial Services and a full refund will be arranged. Students are advised that there is a withdrawal procedure as of the first day of classes (see Withdrawal).

Once the payment has been submitted, please do not put a stop payment on your cheque. This does not constitute cancellation and will only result in a cheque refusal fine being charged.

Hospitality Services, OSAP, Parking
Each of these departments have information which will be distributed to students for the semester in question under separate cover, e.g. location for picking up meal cards, location to pick up OSAP grant/loan cheques, procedure to use for payment of parking decals.

Return Mail Box Locations (Internal Mail)
The University has on-campus mail boxes which may be used to return registration payments. All mail is picked up daily and is post-marked by Mail Services.

Late Registration
Students who do not register by the time designated as the registration deadline for the semester in question are subject to additional fee adjustments. Exceptions will only be made for acceptable reasons with documented evidence. The fee schedule for late registration is published in Section VI--Schedule of Fees. A student will not normally be allowed to register after the end of the Add period. Appeals against the additional fee adjustments must be made in writing to the Secretary of the Appeals Committee, by contacting the Undergraduate Program Services, Office of Registrarial Services within 10 class days of the commencement of classes. Appeal forms are available from Undergraduate Program Services.

Department Chair’s and Dean’s Responsibilities (New Student Registration Only)
In the event that new students will be delayed for registration because of University sponsored trips or courses the department chair concerned should forward a list of participating students to the dean/director of the college/school for approval. The approval list should then be forwarded to the Associate Registrar, Undergraduate Program Services, and specific procedures for late registration will be arranged.

Schedule of Studies
If students have not done so upon entering a degree program, they must declare a major by entry into semester 3 of their degree program. The University monitors the student's progress toward a degree using both the degree program requirements and the schedule of studies requirements. Students must satisfy the requirements in effect at the time of the initial declaration of a schedule of studies or at the time of any subsequent change in declarations. When degree program requirements or schedules of studies are altered by the University, a student may elect to satisfy the requirements in effect when the student entered the degree program, or its equivalent, or a subsequent schedule within a degree program. Students wishing to alter the schedule used to monitor their progress should seek assistance from a program counsellor (refer to Section VII--Academic Counselling).

Scheduling

Undergraduate Course Timetable
The scheduling of all undergraduate courses is the responsibility of the Assistant Registrar, Scheduling.

The scheduling cycle for each S, F and W semester commences one year in advance. The final timetable for each semester is published on WebAdvisor two weeks prior to the commencement of the initial Course Selection period for that semester.

Chair’s Responsibilities
The Chair/Director and/or the designated Department Timetable Coordinator is responsible for the following:

• Submitting to the Assistant Registrar, Scheduling, no later than the established deadline, complete requests for courses to be scheduled in the subsequent academic year.
Registrar's Responsibilities

The Assistant Registrar, Scheduling uses the following criteria when creating the course timetable:

- No course conflicts exist in core courses as published in the schedule of studies in the Undergraduate Calendar.
- The number of elective courses available to students is optimized.
- Classroom space is allocated to courses on the basis of projected enrolments.
- No instructor conflicts exist according to department information.
- Departmental requirements, requested by the Chair/Director or Department Timetable Coordinator, are met where possible.

Changes to the Published Undergraduate Course Timetable

Additional Hours/Sections

If it becomes necessary to schedule additional sections by adding lectures/labs/seminars based on course selection numbers, the request is to be initiated by the Chair/Director or Department Timetable Coordinator and made to the Assistant Registrar, Scheduling.

Cancellations and Time Changes

If course cancellation or class meeting time changes are required once the course timetable has been published on WebAdvisor, the Chair/Director is responsible for obtaining the approval of the Associate Vice-President (Academic) through the Coordinator of the Undergraduate Curriculum (CUC), and the appropriate Dean. Requests to the CUC should be made by the Chair/Director in writing via electronic mail, copying the Dean and the Assistant Registrar, Scheduling. If approved, the CUC will notify the Dean and the Assistant Registrar, Scheduling. After the commencement of Course Selection, the Chair/Director is responsible for ensuring that students are not disadvantaged by any changes. This involves choosing alternate times that are conflict free for all registered students, and communicating via electronic mail to all students, the details of any change.

Registrar's Responsibilities

The Assistant Registrar, Scheduling uses the following criteria when creating the course timetable:

- No course conflicts exist in core courses as published in the schedule of studies in the Undergraduate Calendar.
- The number of elective courses available to students is optimized.
- Classroom space is allocated to courses on the basis of projected enrolments.
- No instructor conflicts exist according to department information.
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- Time changes after the publication of the timetable, prior to the commencement of classes. Changes in scheduled meeting times are approved only in emergency circumstances following the procedure above.
- Time changes after the commencement of classes. Changes in scheduled meeting times are normally not made until after the end of the Course Selection/Add period unless the change is to accommodate students who would otherwise be unable to register in the course. Time changes made after the commencement of classes must not create conflicts for any registered students and must have the unanimous written approval of all registered students, as determined by a secret ballot. New times must comply with University scheduling regulations. The academic unit should keep a record of student approval on file, and a request for the time change and new room assignment should be submitted by the Chair/Director or Department Timetable Coordinator to the Scheduling Coordinator. The instructor is responsible for ensuring that all registered students can attend during the new meeting time(s) and for informing the students of the new time(s) and room assignment(s).

Classroom Assignment Changes/Bookings

- Classroom changes prior to the commencement of classes. At the request of the Chair/Director or Department Timetable Coordinator, the Assistant Registrar, Scheduling and Scheduling Coordinators may reassign classroom space based on course selection figures. Scheduling will make notification of changes affecting other academic units to the Department Timetable Coordinator for those units.
- Classroom Changes and Bookings after the commencement of classes. Instructors requiring classroom changes after the commencement of classes should forward their request through their Chair/Director or Department Timetable Coordinator to the Reservations Clerk, Scheduling via electronic mail. If classroom space assigned to a course is no longer required, instructors should also notify Scheduling by this means, as soon as possible. If rooms are required only occasionally for classes, they should not be held for full semesters, rather one-time or temporary bookings should be made through the Reservations Clerk.
- Classroom bookings for non-regularly scheduled classes, meetings, conferences, tests, etc. may be made through the Reservations Clerk, Scheduling by University of Guelph faculty, staff and students.

Staff Registration and Tuition Waiver

Those staff who are eligible for tuition waiver must complete a “Staff Registration and Tuition Waiver Request” form and submit it to Human Resources.

It is essential that staff follow the normal procedures for contacting Undergraduate Program Services, Office of Registrarial Services, Level 3, University Centre, regarding their selection of courses.

If the “Staff Registration and Tuition Waiver Request” form is not submitted and approved by Human Resources you will not be officially registered for the term.

In addition to completing the “Staff Registration and Tuition Waiver Request” form, you also must add your courses using WebAdvisor or submit an “Undergraduate Course Request” form outlining the course(s) you wish to take. The “Undergraduate Course Request” form can be submitted during the official course selection periods or during the “Add” process at the beginning of each semester.

Student Type

Each full-time or part-time student is registered as one of the following:

- Regular
  A student with student type “Regular” is registered in the regular course requirement for a program.
- Special
  A student with student type “Special” is admitted to a program and is required to complete course or program deficiencies necessary to proceed under the “Regular” student category.

Note: It is the Program Counsellor’s responsibility to change a student from “Special” to “Regular” student type.

Supplemental Privilege Procedures

A student must apply to the Academic Review Sub-Committee for a supplemental privilege no later than the fifth day of classes of the semester following the failure (see Failed Courses in this section). In considering the request, the Academic Review Sub-Committee will consult with the course instructor to obtain information on the student's performance during the course, the instructor's recommendation concerning the appropriateness and feasibility of a supplemental privilege, and the nature of the supplemental privilege. If the Academic Review Sub-Committee approves the request, the department (instructor) responsible for the course will determine the nature of the privilege, which could be a written exam, an oral exam, an assignment, a laboratory practical, or any other method or combination of methods of evaluation.

Note: Students in the B.Sc.(Eng.) Program should refer to the B.Sc.(Eng.) Program regulations under Conditions for Continuation of Study in Section X.

Note: Students in the D.V.M. Program should refer to the D.V.M. Program regulations under Conditions for Continuation of Study in Section X.

Student’s Responsibilities

The student must request a supplemental privilege by submitting the request to the Academic Review Sub-Committee and the fee for the privilege (refer to Section VI--Schedule of Fees) no later than the fifth class day. Students are encouraged to submit their request before classes begin to allow for receipt of a decision within the add period. The granting of the request is normally limited to the described special circumstances having due regard for the student's performance in the course. Course requirements and the student's previous performance may play a significant role in determining whether a privilege is appropriate and/or feasible.

In the case of an examination supervised by the Office of Registrarial Services, it is the student's responsibility to appear on the correct date and time as designated by the Office of Registrarial Services.

If the requirement is beyond an examination supervised by the Office of Registrarial Services, the student must contact the instructor within 5 days of notification in order to clarify the details of the condition. Students are advised to have the instructor complete a form indicating the exact nature and due dates of the supplemental requirements, which may also include the satisfactory completion of an examination supervised by the Office of Registrarial Services (refer to Section III--Schedule of Dates). If the student is unable to make contact with the instructor, the chair of the department offering the course must be contacted. If the required contact is not made the University will assume that the student does not intend to complete the requirements, and the supplemental privilege will be cancelled.

Academic Review Sub-Committee’s Responsibilities

The Academic Review Sub-Committee, upon receiving a request from the student, and after consulting with the instructor and reviewing the student's course performance, will determine whether a supplemental privilege should be granted. When a supplemental privilege has been requested, but not granted, Undergraduate Program Services, Office of Registrarial Services, will inform both the student and the instructor. Similarly, when a supplemental privilege has been requested and granted, Undergraduate Program Services will advise the student and the instructor of the decision.
Instructor's Responsibilities

An instructor should not proceed with any supplemental privilege for a student until official notification of the granting of the privilege has been received from the Academic Review Sub-Committee or the Office of Registrarial Services. Upon request from the Academic Review Sub-Committee, the instructor will provide the performance record of the student for the course, make a recommendation as to the appropriateness and feasibility of a supplemental privilege, and indicate clearly the conditions that would be necessary to ensure that the requirements for the course are fulfilled (see also reference to examinations, immediately below).

If the Academic Review Sub-Committee grants consideration, and upon request from the student, the instructor will complete a form advising the student of the exact nature and due dates of the requirements for the supplemental privilege. If the requirement includes, or takes the form of, the satisfactory completion of a two-hour examination supervised by the Schedules Section, the instructor will have indicated this on the recommendation to the Academic Review Sub-Committee, and by the Wednesday of the third week of classes shall send to the Schedules Section, Office of Registrarial Services an examination for each student granted such a privilege, plus one extra copy per course. If the exam is significantly different from another two-hour exam already completed by the student, the instructor must make this clear on the form provided to the student. For example, if the student had originally been assessed on a final exam covering only the last four weeks of the semester, and is now to be assessed on a comprehensive two hour exam, the nature of the new examination needs to be communicated directly to the student at the time the supplemental privilege is granted.

Within ten days of completion of the supplemental privilege requirements, the instructor will forward to the Department Chair an indication as to whether the student has passed or failed the supplemental privilege. The supplemental privilege should be completed by at least the thirtieth class day of the semester following the failure.

Department Chair's Responsibilities

In the case where the Academic Review Sub-Committee or student is unable to make contact with the instructor to determine the details of the supplemental privilege, the chair should take the necessary steps to assist in determining the requirements for completing the supplemental privilege.

The department chair will initial all decisions submitted by instructors upon the completion of a supplemental privilege by individual students (i.e. pass or fail). These decisions will be forwarded to Undergraduate Program Services, Office of Registrarial Services, by the thirty-sixth class day of the semester following the failure.

Registrar's Responsibilities

The Schedules Section, Office of Registrarial Services will prepare an examination timetable for those students granted a privilege that includes, or takes the form of, a two-hour examination to be supervised by the Schedules Section. The Schedules Section will inform the student and instructor of the date, time, and location of any examination to be supervised by them. Examinations supervised by the Schedules Section as part of the supplemental privilege process are normally scheduled during the deferred examination period (refer to Section III--Schedule of Dates). The Schedules Section is also responsible for invigilating these examinations and forwarding the examinations to the instructor for evaluation.

Undergraduate Program Services, Office of Registrarial Services, will inform students of the results of the completion of the supplemental privilege and update the student's record where appropriate.

Transcripts

An official transcript may be ordered by submitting the "Request for Transcript" form along with payment to Undergraduate Program Services, Office of Registrarial Services. The order can be placed by mail, facsimile or in person:

Mail (cheque or money order): Undergraduate Transcripts, Undergraduate Program Services, U.C. Level 3, University of Guelph, Guelph ON N1G 2W1
Facsimile (credit card number with expiry date): 1-519-763-6809 Attn. Undergraduate Transcripts

The transcript fee is listed in Section VI--Schedule of Fees. Students must have met all financial obligation to the University before official transcripts can be released for any purpose.

Transcripts are normally prepared within three to five working days, however, during busy periods (e.g. common application deadlines) preparation time may be as long as seven to ten days.

Official transcripts from the University of Guelph will show that a degree has been conferred only after the date of convocation.

NOTE: Graduate Program transcripts (e.g. Master of Science) must be ordered by submitting the "Request for Transcript" form along with payment to Graduate Program Services. The order can be placed by mail, facsimile or in person.

NOTE: Official Open Learning program transcripts must be ordered by submitting the "Request for Transcript" form along with payment to the Office of Open Learning. The order can be placed by mail, facsimile or in person.

Transfer of Program

University of Guelph students wishing to transfer from one degree program to another (e.g. from B.Sc. to B.Sc. (Eng.) or from B.A. to B.Comm.) are required to submit an application form to Admission Services. Forms are available from Admission Services, third floor of the University Centre.

To clarify possible conditions or requirements for transfer, students are encouraged to consult with the admission counsellor for the program to which they wish to transfer before submitting their application. In cases where the student's performance has been inconsistent, the applicant must also submit a comprehensive support letter outlining the reasons for transfer as well as any factors contributing to the previous academic performance.

1. Procedures for Currently Registered Students

Course selection should be completed for the new program. The admission decision will be made after grades from the current semester are available and after the deadline date for course selection. The drop and add procedure must be used if the application is submitted after the course selection deadline date and if course selection has been completed for the current program.

Fee changes necessitated by the change of program will be calculated automatically by Student Financial Services.

The admission decision will be sent to the student's Campus Post Office Box during the first week of the following semester.

Students who have received an offer of admission which they wish to decline must contact Admission Services within the first 10 class days and complete the Cancellation of Program Transfer form. Students who fail to decline the offer will remain registered in the new program. All students must verify their course selection with their departmental advisor to ensure compatibility with their program of study.

2. Procedures for Students who are Not Currently Registered

An admission decision will be reached as soon as possible after receipt of the application and any supporting documentation.

Admission decisions will be mailed to the mailing address, if in effect, or to the permanent address. Information on mail registration and instructions concerning course selection will be sent under separate cover by Undergraduate Program Services.

Note: Students who wish to transfer from one specialization to another in the same program (e.g. from Biological Science to Chemistry in the B.Sc. Program or from Drama to Sociology in the B.A. Program) are not required to apply to Admission Services. Such students should contact the departmental advisor for the specialization in which they wish to register. Students wishing to change specializations within the B.A.Sc. or B.Comm. Programs should consult with their program counsellor.

Verification Notice

During the third week of classes Undergraduate Program Services, Office of Registrarial Services, will send to each student registered at the University a copy of their current academic evaluation that also is available through WebAdviser. This will indicate the personal and program information that is currently on file in Undergraduate Program Services, Office of Registrarial Services. This report is to be used to advise students of their current status and to correct any errors in reported information. Corrections or amendments to that information may be made upon presentation of appropriate documentation to Undergraduate Program Services, Office of Registrarial Services as follows:

• Changes to specialization information or course information must be substantiated with your copy of either the class schedule or the "Undergraduate Change of Studies Request" form.
• Changes to personal information may require presentation of appropriate documentation.

Note: Report missing or corrected items only.

Student hardcopy files are destroyed after 7 years of inactivity (e.g. no registrations) or one (1) semester after a student has graduated. In these cases the transcript is the only official file available from the Office of Registrarial Services that can be referenced during an appeal.

Students should familiarize themselves with the procedures regarding Academic Consideration, Grade Reassessment and Petitions.

Withdrawal

This section provides a summary of rules and regulations with respect to various types of withdrawal from the University. In some instances other sections of the calendar are referenced and these also should be consulted to ensure that a full understanding of the regulations is obtained. There are two types of withdrawals: voluntary or required.

Voluntary Withdrawal

Students who complete the procedure for registration (selection of courses and payment of fees) and who subsequently decide not to attend that semester may cancel their registration by notifying Student Financial Services up to but not including the first class day. Student Financial Services will arrange for the appropriate refund of fees paid. For
the Fall semester the required minimum registration deposit will automatically be forfeited. Please refer to “Refunds” in section VI - Schedule of Fees for specific details. Commencing with the first day of regular classes the formal withdrawal procedure from the University is required and outlined below.

A student intending to withdraw from the University must notify Undergraduate Program Services, Office of Registrarial Services in writing and complete the Notice of Withdrawal form. Students contemplating withdrawal are urged to meet with their program counsellor to discuss the implications of withdrawal. A student receiving financial assistance through the Ontario Student Assistance Program is strongly advised also to contact Student Financial Services regarding the status of that award upon withdrawal.

The timing of the withdrawal and the reasons for it may have academic and financial implications. Up to the 40th class day, a student may withdraw without academic penalty. However, unless the withdrawal is for illness or compassionate grounds, students will be liable for fees payable in accordance with the refund schedule (see Section VI - Schedule of Fees regarding Refunds). Students seeking a refund on grounds of illness or compassionate circumstance must provide documented evidence related to the grounds for which the student is registered at the time of withdrawal. Students seeking academic consideration on grounds of illness or compassionate circumstance must appeal to the Academic Review Subcommittee for their program (see Academic Consideration in this chapter). Depending on the timing and circumstances students may be able to obtain a fee refund after the 40th class day. Students should consult with Undergraduate Program Services or their program counsellor.

A student who withdraws from the University must return all outstanding loans from the Library immediately upon withdrawal regardless of the original due date. Any items not returned will be declared “lost” and charged to the student’s account.

Students who do not register in a program of study for six or more consecutive semesters are required to apply for readmission. Students who are studying on exchange programs, study abroad, or work terms are considered to be registered at the University (see Time Limitations in this chapter).

Required to Withdraw

Students may be required to withdraw for reasons of academic performance or academic misconduct.

a. Academic Performance (please refer also to the section on Continuation of Study for detailed requirements)

Students who do not meet the continuation of study requirements for at least probationary status at the end of the winter or summer semesters will be required to withdraw and the two-semester rustication period will begin effective the subsequent semester.

At the end of the fall semester a student whose cumulative or semester average is below the level for probationary status at the end of the fall semester has two options:

i. The student may choose to accept “Required to Withdraw” status effective with the beginning of the subsequent winter semester. This means that the two-semester rustication period will begin immediately; or

ii. The student may register and continue in his/her program on probationary status for the winter semester. Failure to achieve the required semester average for probationary status at the end of the winter semester will result in the student being required to withdraw. In this case, the two-semester rustication period will begin effective the summer semester.

Note: If a student registers and subsequently withdraws from the winter semester, the required to withdraw status will apply immediately.

Students who are granted a deferred privilege (examination or condition) will have their Continuation of Study Status assessed once the deferred privilege is complete. At that time an assessment of required to withdraw could have an impact on the student’s current registration.

b. Academic Misconduct (refer also to the full Academic Misconduct Policy in this chapter)

One of the penalties that may be assessed against a student found guilty of academic misconduct is suspension from the University for a period of between two and six consecutive semesters. The effective date of such a suspension is determined by the dean responsible for the case.

c. Appeals (refer also to the sections on Academic Consideration and Academic Misconduct for full details of appeals processes)

Students who do not satisfy the program requirements for continuation of study and are required to withdraw may appeal for probationary status to the Academic Review Sub-Committee, and subsequently the Senate Petitions Committee, on medical, psychological, or compassionate grounds. Students are not permitted to attend classes until such time that the appeal is granted.

Students who are suspended from the university as a result of academic misconduct, may appeal to the Senate Petitions Committee with respect to either the appropriateness of the penalty or the finding of guilt.
IX. Scholarships and Other Awards

General Statements on Awards

The University of Guelph attracts a community of outstanding scholars to its broad range of faculties and programs. The Committee on Awards, established by the Senate of the University, is responsible for the supervision of the administration of awards in the gift of the Senate. In addition, this Committee formulates policies regarding the effective use of funds designated for awards and establishes the terms and conditions attached to the awards. Each College has an Awards Committee, which is responsible for the awarding of scholarships and bursaries. In addition, there is a University Bursary Committee that is responsible for awarding bursaries. Some scholarships and bursaries are open to all students regardless of degree or diploma program and others are restricted to students in particular degree programs/majors/departments. Students entering the 1st semester of their first undergraduate degree, should consult the "entrance" sections for a listing of awards that may apply to them. Students that are registered students at the University of Guelph should refer to the "in-course" sections for a listing of awards that may apply to them. Also refer to Section VIII—Undergraduate Degree Regulations and Procedures, Academic Misconduct, Penalties, for additional regulations regarding scholarships and bursaries.

Eligibility: To be eligible for entrance awards, you should be a Canadian citizen or permanent resident entering the 1st year of post-secondary studies for the first time. To be eligible for in-course awards, all registered students are eligible for most awards, unless otherwise stated in the eligibility clause of the award. A minimum of 70% average is required for all scholarships. International Students: Financial Assistance Programs are available for International Students, including Entrance Awards, Work-Study and In-course Bursaries. In addition, many of the University of Guelph's scholarships for upper-year students are available to enrolled international students and are based on high academic standing. Where applications are required, it is the student's responsibility to obtain an application from Student Financial Services and to see that it is returned prior to the deadline date.

Awards: Generic term used to refer to a type of award that is not a scholarship. These include bursaries and ACCESS awards.

ACCESS Awards: The University recently established an endowment fund through the generous contributions of over 6,000 donors which was matched by the provincial government's Ontario Student Opportunity Trust Fund (OSOTF) program. The income generated from this endowment will be used to support financial aid programs. The awards created will be used to assist Canadian citizens or permanent residents who meet the Ontario residency requirements as mandated by the OSOTF program. Students must complete a Need Assessment Form in order to be considered. Please contact the Student Financial Services office for further details. Ontario Government Mandated Terms for an OSOTF Award:
i) be a Canadian citizen or permanent resident;
ii) be a Ontario resident as defined by a) have lived in Ontario for a period of at least 12 consecutive months up to the beginning of full-time post-secondary study; or b) the student's spouse has lived in Ontario for at least 12 consecutive months up to the beginning of the current year full-time post-secondary study period; or c) the student's parent(s)/stepparent(s)/legal guardian/official sponsor has lived in Ontario for at least 12 consecutive months up to the beginning of the current year full-time post-secondary study period;
iii) financial need has been demonstrated as determined by the University of Guelph Need Assessment procedures.

Bursary: An award provided to a student on the basis of financial need. Financial need is determined by the University of Guelph's Bursary Committee after an evaluation of the Financial Need Assessment Form has been submitted by the student. Academic merit is not a consideration in awarding a bursary. You must be a Canadian citizen or permanent resident of Canada to be considered for bursaries. International students are eligible to apply for the International Student Bursary only.

Scholarship: Awarded on the basis of academic performance and given for further study. Given that the merit component is normally academic, it may include such non-academic aspects as leadership, extracurricular activity, volunteerism, and community involvement. Scholarships can be monetary, prizes, or medals. Financial need is not a consideration of scholarships.

Scholarships with Financial Need: These are awarded based on the same criteria as scholarships, but financial need is a consideration.

Travel Grants: These grants are provided to students who wish to travel as part of their program of study. Examples of travel opportunities include: Exchange/Study Abroad programs, letter of permissions, field courses, and independent research projects.

Payment of Awards for In-course Students: Please note that Student Financial Services will apply all internal awards against outstanding balances on students' accounts unless prior arrangements have been made.

Payment of Awards for Entrance Students: Awards will be applied directly to the student's financial account in two equal payments in the fall and winter semesters. Students who receive an award and who withdraw from the semester in which the award is received, or change the number of credits in which they are registered, may have their award adjusted. This adjustment will be calculated up to the twentieth class day according to the rebate schedule in effect for that semester and the published terms and conditions for the award.

The University reserves the right to amend awards subject to the availability of funds.
Bachelor of Applied Science

Please refer to the General Statement on Awards for:

- Award Eligibility
- ACCESS Awards Eligibility
- Ontario Student Opportunity Trust Fund (OSOTF) Program
- How Awards are Paid

The University reserves the right to amend awards subject to the availability of funds.

Entrance Scholarships

<table>
<thead>
<tr>
<th>Scholarship</th>
<th>Amount</th>
<th>Qualification(s)</th>
<th>Donor(s)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adelaide Hoodless Entrance Scholarships [E0133]</td>
<td>5 awards of $1,500</td>
<td>Students entering the B.A.SC. program</td>
<td>The estate of Bernard B. Hoodless</td>
<td>Established in memory of Adelaide Hoodless, by the estate of her daughter, Muriel I. Bostwick (MAC '31D). This award will be made in two equal installments of $750. The second installment will be paid at the beginning of semester 2 provided the recipient obtains at least a 70% average in semester 1. Application not required.</td>
</tr>
<tr>
<td>Angelo and Frank Agro Undergraduate Scholarship [E0520]</td>
<td>1 award of $4,000</td>
<td>Full-time students entering semester 1 who have attained a minimum 80% admission average in their graduating year from high school. The scholarship will be awarded to the eligible student demonstrating the greatest past or continuing involvement with 4H activities. Recipients must maintain full-time studies and at least a 70% program average each year for continuation of the award.</td>
<td>The Frank Agro Estate</td>
<td>Provided by the Agro Scholarship Fund. Apply by April 1 to Student Financial Services, including a covering letter describing your activities within 4H (details of 4H club membership, creativity in support of 4H activities, participation in activities and events, volunteer leadership roles, etc.) and a letter of reference from a 4H club official attesting to your involvement. $4,000 ($1,000 annually for four years).</td>
</tr>
<tr>
<td>Board of Governors' Scholarships [E0317]</td>
<td>25 awards of $8,000</td>
<td>Outstanding students entering semester 1</td>
<td>Board of Governors</td>
<td>The scholarship will be paid in eight equal installments with the first and second payments payable shortly after registration in semesters 1 and 2. The 3rd to 8th payments are contingent upon obtaining a minimum average of 80% over the previous two semesters of full-time study. Students who fail to qualify for a payment may re-qualify by subsequently obtaining an 80% or better average over the previous two semesters of full-time study. Application not required. Twenty-five awards of $8,000 ($2,000 annually for 4 years).</td>
</tr>
<tr>
<td>Clara E. Elliot Education Scholarship [E0210]</td>
<td>1 award of $8,000</td>
<td>Academically outstanding students, who are entering semester 1 of the B.A.SC. program with at least an 80% average and who plan to pursue a career in teaching. The recipients will be selected on the basis of academic achievement and evidence of participation in leadership roles, especially teaching and education. References from teachers and overall presentation of their application material will also be used to determine award recipients. Preference will be given to students planning a teaching career in areas related to family studies including nutrition education and early childhood education.</td>
<td>Clara E. Elliot Estate</td>
<td>Provided by the estate of Clara E. Elliott, MAC '07. This scholarship is payable in 4 annual installments of $2,000. To maintain the award for the second year of study, the recipients must have at least a 77% average and continue to demonstrate the qualities on which the award was given. To maintain the scholarship into the 3rd and 4th years, the recipient must have at least an 80% average in the prior year and continue to demonstrate the qualities on which the award was given. Eligible students admitted to semester 1 will be invited to submit an application. One award of $8,000 ($2,000 annually for 4 years).</td>
</tr>
</tbody>
</table>

International Student Entrance Scholarships [E0408]

In support of the University's strategic direction of internationalism, entrance scholarships are available each Fall semester to the top international students entering their first semester of an undergraduate degree program at the University of Guelph. Applicants must submit all relevant documentation for admission consideration by March 1 to be considered for a scholarship. These scholarships are awarded on a competitive basis. Application not required.

- **J.D. MacLachlan Scholarship [E0170]**
  - Provided by the family of J.D. MacLachlan. Application not required.
  - Donor(s): The J.D. MacLachlan Trust
  - Qualification(s): Student entering the University with the highest admission average.
  - Amount: 1 award of $1,500

- **L.A. Beattie & J.C. Beattie Memorial Scholarship [E0026]**
  - The estate of Jessie L. Beattie has established a scholarship in memory of Lillie Ann Beattie and Jeannie Cockburn Beattie. The scholarship is awarded alternately between the B.A.Sc. (odd-numbered years) and B.COMM. (even-numbered years) programs. Application not required.
  - Donor(s): The estate of Jessie L. Beattie
  - Qualification(s): Student entering full-time studies in the B.A.Sc. program or the School of Hospitality and Tourism Management, Housing and Real Estate Management or Marketing Management majors in the B.Comm. program who has achieved the highest mark in English during the final year of high school. In the event of a tie, preference will be given to students from rural areas.
  - Amount: 1 award of $300

Last Revision: October 18, 2005
Lincoln Alexander Chancellor's Scholarship [E0493]
These scholarships, named to honour Lincoln Alexander, Chancellor of the University of Guelph and former Lieutenant Governor of Ontario, on his 80th birthday, are awarded to academically distinguished entering students who are Aboriginal, persons with a disability or members of a racial minority, and who have made significant contributions to their schools and communities and demonstrated the potential to become leaders in society. These scholarships are intended to enhance student diversity and are amongst the most prestigious entrance awards at the University of Guelph. Nominations are made by high school principals and are to be sent to the Associate Registrar, Student Financial Services, by March 1. Two awards of $20,000 ($5,000 annually for 4 years).

Donor(s): Many Donors
Qualification(s): Entering students of academic distinction who are Aboriginal, persons with a disability or members of a racial minority, and who have made significant contributions to their schools and communities and demonstrated the potential to become leaders in society. Financial need may be taken into consideration.

Amount: 2 awards of $20,000

Mac-FACS Alumni Association Centennial Scholarship [E0162]
Established by the Mac-FACS Alumni Association. The winner will be selected from the pool of eligible students not awarded the Clara E. Elliott Education or Entrance Scholarships.

Donor(s): Mac-FACS Alumni Association
Qualification(s): This scholarship is offered to students entering the B.A.Sc. program or the Marketing Management or Housing and Real Estate Management majors of the B.COMM. program with high academic standing and who have shown leadership in community-based volunteer activities. Students who have applied to the above programs will be invited to submit an application.

Amount: 1 award of $500

Mac-FACS Alumni Entrance Scholarship - FRAN [E0522]
Established in 1960 by the Mac-FACS Alumni Association and awarded in the Fall semester. Application not required.

Donor(s): Mac-FACS Alumni Association
Qualification(s): Students entering the B.A.Sc program in the Department of Family Relations and Applied Nutrition. Selection will be based on the highest admission average. This award is not tenable with the President’s Scholarship or the Lincoln Alexander Chancellor’s Scholarship.

Amount: 1 award of $1,000

McArthur-Humphries Scholarship [E0183]
Provided by the Wilhelmina McArthur Humphries Trust Fund. This scholarship is awarded to students entering any undergraduate degree program and are based on the highest admission average. Application not required.

Donor(s): Wilhelmina McArthur-Humphries Trust Fund
Qualification(s): Students entering semester 1 with a minimum 75% admission average. Preference will be given to those students from Lanark and Wellington Counties. An equal number of awards are available to students from each county. In the case of insufficient eligible applicants from one county, the awards will be given to eligible applicants from the other county.

Amount: 12 awards of $1,000

P.A.J. Clarke Family Scholarship [E0381]
Paul and Aileen Clarke and their family established the endowment for this entrance scholarship in honour of Paul's father, the late Jack Clarke, a Blenheim area farmer. Apply by letter outlining extracurricular and/or community activities, ensuring that you have completed a Need Assessment Form for Entrance Awards, and submit to Student Financial Services by April 1. Students who have applied to the University for admission will receive information on completing a Need Assessment Form for Entrance Awards from the University early in the calendar year. This award is not tenable with the President’s or Lincoln Alexander Chancellor’s Scholarship. Annual payments are contingent upon full-time enrolment and maintaining a minimum 70% average on the previous Fall and Winter semesters. One award of $12,000 ($3,000 annually for 4 years).

Donor(s): Paul and Aileen Clarke
Qualification(s): Students with a minimum 80% average with a record of leadership and community participation are eligible. Preference will be given to candidates from Blenheim district or Kent County and who were raised, or have worked, on a farm. Students may be contacted to provide special need circumstances if there is a short list of equal candidates.

Amount: 1 award of $12,000

President's Scholarship [E0238]
The most prestigious entrance awards at the University of Guelph. Twelve scholarships of $20,000 ($5,000 annually), named to honour their donors or distinguished members of the University, are awarded to entering students of academic distinction who have demonstrated the potential to become leaders in society. Nomination packages are sent to Canadian high schools each fall. This award is tenable with the University of Guelph Entrance Scholarship, the University of Guelph Accessibility Scholarship or the Registrar's Entrance Scholarship, but no other Entrance Scholarships.. High school principals must submit their nominations using the application material sent to the school's Guidance Office in the fall, to the Associate Registrar, Student Financial Services, by March 1.

Donor(s): A number of President’s Scholarships have been named in honour of the following people and/or donors:
- Dick Brown
  Two of the scholarships, endowed by Dr. Patrick Lett are awarded to winners whose leadership qualities best reflect those demonstrated by Dick Brown in University Athletics from 1968 to 1988.
- Cecil H. Franklin and Ingrid Franklin
  In honour of Cecil Franklin, former Chair of the Board of Governors and Honorary Fellow of the University, the University of Guelph has named one of these twelve prestigious entrance awards to recognize his financial contributions and volunteer support to the President's Entrance Scholarship program.
- Charles S. Humphrey
  In memory of Charles S. Humphrey, a former President of Hart Chemical Company Canada Ltd. and long-time friend, the University has named one of these twelve prestigious entrance awards to recognize his financial contributions through his estate to the President’s Entrance Scholarship program.
- Jack R. Longstaffe
  The University of Guelph has named one of these twelve prestigious entrance awards in memory of Jack R. Longstaffe to recognize his financial contribution through his estate to the President's Entrance Scholarship program.
- Burton C. Matthews
  The University of Guelph has named one of these twelve prestigious entrance awards in honour of Burton C. Matthews to recognize his insight and leadership in establishing the President's Entrance Scholarship program.
- Kathleen and Frederick Metcalf
  Mr. and Mrs. F.T. Metcalf of Guelph have endowed this award. After a distinguished career in cable TV, broadcasting and publishing, the late Mr. Metcalf retired as President of Maclean Hunter Ltd. and Chairman of the Board of Maclean Hunter Cable Ltd. He was Honorary Chairman of Maclean Hunter Cable Ltd. and a member of the University of Guelph Heritage Board (1996).
- Rol-land Farms Limited
  Two of the scholarships are endowed by the four shareholders of Rol-land Farms Limited of Blenheim, Ontario, Hank, Peter, Arthur and Eric Vander Pol and their families. The Vander Pol families are generous supporters of a number of University projects and programs.
- Lillian Stewart Usher
  The University of Guelph has named one of these twelve prestigious entrance awards in honour of Lillian Stewart Usher a friend of the University to recognize her financial contribution through her estate to the President’s Entrance Scholarship program.
- Kathleen and Fred Metcalf
  The University of Guelph has named one of these twelve prestigious entrance awards in honour of Kathleen and Frederick Metcalf to recognize their leadership and volunteer support to the President's Entrance Scholarship program.
- Burton C. Matthews
  The University of Guelph has named one of these twelve prestigious entrance awards in honour of Burton C. Matthews to recognize his financial contributions through his estate to the President’s Entrance Scholarship program.
- Lillian Stewart Usher
  The University of Guelph has named one of these twelve prestigious entrance awards in honour of Lillian Stewart Usher a friend of the University to recognize her financial contribution through her estate to the President’s Entrance Scholarship program.
- Kathleen and Fred Metcalf
  The University of Guelph has named one of these twelve prestigious entrance awards in honour of Kathleen and Frederick Metcalf to recognize their leadership and volunteer support to the President's Entrance Scholarship program.
- Burton C. Matthews
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- Lillian Stewart Usher
  The University of Guelph has named one of these twelve prestigious entrance awards in honour of Lillian Stewart Usher a friend of the University to recognize her financial contribution through her estate to the President’s Entrance Scholarship program.

The Jack and Lillian MacDonalld Scholarship [E0379]
Family, friends, and colleagues of Lillian Macdonald and Dr. Jack MacDonald, Vice-President, Academic, of the University of Guelph from 1986 to 1995, have established a scholarship that recognizes their commitment to increasing the accessibility of post-secondary education to aboriginal persons. Apply by letter to Student Financial Services by April 1.

Donor(s): Jack and Lillian MacDonald
Qualification(s): In the first instance, the award will be given to an entering student coming from the Grand River Polytechnical Institute (GRPI) and who has received the highest cumulative average in the Native University Access Program. If there is no entering student in any one year, the scholarship will be awarded to the in-course student who is a graduate of the GRPI who has the highest cumulative average at the University.

Amount: 1 award of $900
University of Guelph Entrance Scholarships [E0291]

This scholarship is based on the final admission average and program of study that is calculated by Admission Services, based on 12U, 12M, or OAC courses. These will be awarded based on the final high school grades that are submitted to the University in July. A minimum 85% final admission average guarantees an award. The scholarship will be applied directly to the student's financial account in two equal payments in the Fall and Winter Semesters. You can view the scholarship amounts at: http://www.uoguelph.ca/studfin/fall_current_merit.shtml. Application not required.

**Donor(s):** University of Guelph  
**Qualification(s):** Students entering their first year of post-secondary studies for the first time and have a minimum 85% final admission average.  
**Amount:** Several awards ranging in value from $1,500 to $3,000

University of Guelph Faculty Association Scholarship [E0292]

Award is payable at $750 per annum in the student's 1st, 3rd, and 5th semester levels, provided a cumulative average of at least a 70% is maintained. To receive the final payment, the recipient would normally be entering the 5th semester level within a period of 3 calendar years from the date of admission. Application not required.

**Donor(s):** University of Guelph Faculty Association  
**Qualification(s):** Student entering an undergraduate degree program at the University of Guelph with the highest admission average who has been a resident in the County of Wellington during the previous twelve months.  
**Amount:** 1 award of $2,250

W. Penri Morris Memorial Scholarship [E0430]

Established by the family in memory of Penri Morris, who was killed World War II action in 1944 at the age of 21. Penri grew up on the family fruit farm near Forest, Ontario. After graduating from high school, he joined the Royal Canadian Air Force and was attached to the Royal Air Force Bomber Command as a navigator at the time of this death. Awarded to the student with the highest cumulative academic performance above 75% in all courses of the last year in high school study (full-time or equivalent study). Application not required.

**Donor(s):** Prof. Rosalina Morris  
**Qualification(s):** Students entering first year of any undergraduate program from North Lambton Secondary School in Forest, Ontario, in their absence, from Lambton County, and their absence, from Ontario.  
**Amount:** 1 award of $1,000

Entrance Scholarships with Financial Need

Bill Klopp Memorial Award [E0150]

Priority will be given to a student from Kitchener-Waterloo Collegiate and Vocational Institute. Apply by letter, to Student Financial Services, outlining extracurricular activities and by completing the online Entrance Financial Need Assessment Application (N.A.F) by May 1. Students should complete the Entrance Financial Need Assessment application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student).

**Donor(s):** Ross and Mary Lou Klopp  
**Qualification(s):** Presented to a student entering semester 1 from the cities of Kitchener or Waterloo who has demonstrated involvement in extracurricular activities who has shown satisfactory academic performance and who has financial need.  
**Amount:** 1 award of $500

Kenneth O. Hammill-Blount Canada Scholarship [E4356]

Established in honour of Kenneth Osborne Hammill, a long time friend of the University and retired plant manager of Blount Canada, with the assistance of the Ontario government's OSOTF program. The winner is chosen from the list of alternates for the President's Scholarships. President's Scholarship nominees should complete the online Entrance Financial Need Assessment application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student). Deadline to submit the application is May 1. ACCESS AWARD.

**Donor(s):** The Blount Foundation, Inc.  
**Qualification(s):** Students from the Province of Ontario, with demonstrated financial need, entering one of the following programs on an annual rotation: B.A. in 98/99, then B.A.Sc., B.Comm., B.S.C., B.S.C.(Agr.), B.S.C.(Eng.), B.S.C.(Env.). Recipients must maintain a B+ average or higher, continue to demonstrate financial need and be full-time students in order to qualify for subsequent installments. During the summer after the 3rd year, the scholars will propose, to Student Financial Services, an enrichment experiential undertaking related to the student's field of study; the grant application should include a detailed budget. A grant of up to $1,200 is available to support the undertaking, subject to continuing financial need and approval of the proposal by Student Financial Services. Upon completion, the student will write a report of the experience to Student Financial Services. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 1 award of $9,600, payable in 8 payments of $1,200

Registrar's Entrance Scholarships [E0384]

Established by the University of Guelph to support entering undergraduate students with identified financial need. Students should complete the online Entrance Financial Need Assessment application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student). Deadline to submit the application is May 1. Scholarship offers will be made in May. This award is not tenable with the University of Guelph Accessibility Scholarship, but can be held with all other Entrance Awards.

**Donor(s):** University of Guelph  
**Qualification(s):** Students entering a full-time undergraduate program on the basis of financial need and academic merit.  
**Amount:** 500 awards of $2,000

Rol-Land Farms Scholarship [E4519]

Established by Rol-Land Farms, with the assistance of the Ontario government's OSOTF program, to attract entering students who might otherwise not be able to attend university for financial reasons. Students should complete the online Financial Need Assessment application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student). Deadline to submit the application is May 1. ACCESS AWARD.

**Donor(s):** Rol-Land Farms  
**Qualification(s):** Outstanding entering undergraduate degree students with demonstrated financial need and a minimum 80% cumulative average. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 13 awards of $2,000

University of Guelph Accessibility Scholarship [E3038]

Established by the University of Guelph to support entering undergraduate students with identified financial need. Students should complete the online Entrance Financial Need Assessment application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student). Deadline to submit the application is May 1. Scholarship offers will be made in May. This award is not tenable with the Registrar's Entrance Scholarship, but can be held with all other Entrance Awards. Approximately 150 awards of $9,000 ($3,000 in year one and $2,000 in years 2, 3 and 4).

**Donor(s):** University of Guelph  
**Qualification(s):** Students entering a full-time undergraduate program on the basis of financial need and academic excellence.  
**Amount:** 150 awards of $9,000
### Entrance Awards with Financial Need

#### Harvey Graham Bursary [E3030]
Provided by Harvey Graham (OAC '39). Students should complete the online Entrance Financial Need Assessment application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admission has been submitted by the student). Deadline to submit the application is May 1.

**Donor(s):** Harvey Graham, OAC '39  
**Qualification(s):** Student who has demonstrated financial need with preference given to a student who comes from a working farm. Students graduating from Lindsay C.V.I., Fenelon Falls Secondary School, or L.E. Weldon Secondary School will be considered. Each application must be accompanied by a reference letter from the Reeve of the student’s home township.

**Amount:** 1 award of $1,700

#### International Student Entrance Bursaries [E3043]
In support of the University’s strategic direction of internationalism, entrance bursaries are available each fall to assist some of our international students entering an undergraduate degree program at the University of Guelph. Students who have applied to the University of Guelph will receive an application form.

**Donor:** University of Guelph  
**Qualification(s):** Students on a student visa entering an undergraduate degree program at the University of Guelph with demonstrated financial need.

**Amount:** Several awards of $1,000, Several awards of $3,000

#### Justine Eves Learning Disability Accessibility Bursaries [E3057]
In memory of Justine Eves who was dyslexic and died tragically in an automobile accident in 1995, the Justin Eves Foundation together with the University of Guelph provides these awards to entering Undergraduate students who have a learning disability and who have demonstrated financial need. Students should complete the online Entrance Financial Need Assessment application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student). Deadline to submit the application is May 1.

**Donor(s):** Justin Eves Foundation  
**Qualification(s):** Any entering undergraduate student that has financial need and a documented learning disability as defined by the Ontario Psychological Association.

**Amount:** 4 awards of $3,000

#### Robert Arthur Stewart Bursaries [E3272]
Established in memory of Mrs. Elsa H. Stewart of Pakenham, Ontario. Mr. Stewart graduated from the Ontario Agricultural College in 1933 and Mrs. Stewart from Macdonald Institute in 1932. Applicants for these bursaries should have a good academic record and an active interest in community affairs. A recommendation from the County agricultural representative or the secondary school principal is required and should be sent to Student Financial Services by April 1. Students should complete the online Entrance Financial Need Assessment application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student). Deadline to submit the application is May 1.

**Donor(s):** The Estate of Mrs. H. Stewart  
**Qualification(s):** Students from the Ontario Counties of Lanark and Renfrew, and the Regional Municipality of Ottawa-Carleton, entering the 1st semester of a degree program at the University of Guelph.

**Amount:** 12 awards of $500

#### Tamnie Neovillls Memorial Bursary [E3541]
The family and friends of the late Tamnie Neovills (FACS ‘81), a former teacher at Bluevale Collegiate Institute in Waterloo, ON, with the assistance of the Ontario government's OSOTF program have provided this award to a student entering a major in the Department of Family Relations and Applied Nutrition. Apply by completing the online Need Assessment Form. Students should complete the Entrance Financial Need Assessment application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student). Deadline to submit the application is May 1. ACCESS AWARD

**Donor(s):** The family and friends of Tamnie Neovills (FACS’81)  
**Qualification(s):** Student who is entering a major in the Department of Family Relations and Applied Nutrition that has demonstrated financial need. Preference will be given to a graduate of Bluevale Collegiate Institute in Waterloo, ON, then to Waterloo Collegiate Institute. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 1 award of $1,000

### In-course Scholarships

#### A.M. Bell Prize [C0028]
Provided by the estate of the late Adna M. Bell. Application not required.

**Donor(s):** The Estate of Adna M. Bell  
**Qualification(s):** Student who obtains the highest grade in course NUTR*4900 Selected Topics in Human Nutrition.

**Amount:** 1 award of $150

#### Adelaide Hoodless Memorial Scholarships [H0137]
Established in memory of Adelaide Hoodless, by her son, Bernard B. Hoodless. Students will be eligible for only one Adelaide Hoodless Memorial Scholarship. Apply by letter outlining extracurricular activities to the Department of Family Relations and Applied Nutrition, by April 1.

**Donor(s):** The Estate of Bernard B. Hoodless  
**Qualification(s):** Students entering semester levels 5, 6, or 7 of the B.A.SC. program.

**Amount:** 2 awards of $500

#### Adelaide Hoodless Proficiency Scholarships [H0138]
In memory of Adelaide Hoodless, the estate of her daughter, Muriel L. Bostwick (MAC ’31D), has established a number of proficiency scholarships to students in the B.A.SC. program. Students can receive up to two Adelaide Hoodless Proficiency Scholarships. Apply to the Department of Family Relations and Applied Nutrition by April 1.

**Donor(s):** The Estate of Bernard B. Hoodless  
**Qualification(s):** Students entering semester levels 3, 4, 5, 6 or 7 of the B.A.SC. program with a cumulative average of at least 70%. Recipients will be selected on the basis of academic merit and involvement in extracurricular activities.

**Amount:** 2 awards of $500

#### Agincourt Milk Producers’ Association Scholarship [H0003]
Application not required.

**Donor(s):** Agincourt Milk Producers  
**Qualification(s):** Student preferably from a farm family in York County or the Region of Durham. The student must be entering the semester 7 of the B.A.SC. program with a good academic record and be majoring in Applied Human Nutrition. Presented in the Fall semester.

**Amount:** 1 award of $600

#### Ann E. Barber Memorial scholarship [H0023]
Established in 1963 in memory of Ann E. Barber, former superintendent of Macdonald Hall from 1931 to 1942 and Dean of Women from 1946 until her retirement in 1956, by the Mac-FACS Alumni Association. Apply to the CSAHS Undergraduate Awards Committee with a one-page description of contributions to student activities by April 1.

**Donor(s):** Mac-FACS Alumni Association  
**Qualification(s):** Full-time student in the B.A.SC. program or the Marketing Management or Housing and Real Estate Management major of the B.COMM program who has completed between 5.0 and 10.0 course credits and has achieved a minimum 80% average in the semester just completed. The award will be given to the student who has made the greatest contribution to student activities in residence or on campus.

**Amount:** 1 award of $500

#### Anne Callahan Memorial Scholarship [H0038]
The alumni, faculty and staff of the former College of Family and Consumer Studies established a scholarship in memory of Professor Anne Callagan. Offered in odd-numbered years. Application not required.

**Donor(s):** The alumni, faculty and staff of the College of Social and Applied Human Sciences  
**Qualification(s):** Co-op student in the B.A.SC. program who achieves the highest cumulative grade average over the first 4 semesters of study.

**Amount:** 1 award of $400

#### Bill Taylor Memorial Scholarship [H0280]
Applications to include a supporting letter from a coach or intramural supervisor. Apply to Student Financial Services by April 1.

**Donor(s):** AMF Canada Ltd.  
**Qualification(s):** Student that has completed a minimum of 7.5 credits, but no more than 17.5 credits in the Winter term who has a cumulative 80% average or who is in the top 10% of his/her program. The recipient must have demonstrated responsibility and leadership qualities through participation in intramural or intercollegiate athletics.

**Amount:** 1 award of $900
C.G.A. Ontario Award for Excellence [C0025]

Apply by April 1 to Student Financial Services indicating intent to pursue the C.G.A. program of professional studies. One award of $150 plus a credit equaling one year’s tuition and course fees towards the C.G.A. program (approximate value: $2,000)

Donor(s): Certified General Accountants Association of Ontario
Qualification(s): Graduating student who has a cumulative average of 77% in Financial Accounting AGEC*2220; Management Accounting AGEC*2230; and Intermediate Accounting AGEC*3330.
Amount: 1 award of $150, plus 1 year tuition and course fee towards the C.G.A. program. (approximate value of $2,000)

CFRU Volunteer Award [I0215]

Apply to the CFRU Board of Governors by April 30.

Donor(s): Station Manager, CFRU
Qualification(s): Applicants must be registered or graduating from the University of Guelph and have volunteered at CCFRU for at least one year. The recipients will be selected on the basis of academic performance and volunteer work at CFRU.
Amount: 2 awards of $250

City of Guelph 175th Anniversary Awards [I0515]

Provided by the Guelph Community Foundation, in celebration of the 175th anniversary of the City of Guelph in 2002, as an investment for future generations. Apply to Student Financial Services, by October 7 of the second year of study, with a letter describing Guelph community and University community volunteer activities and extracurricular activities, a completed Need Assessment Form, and two reference letters not to exceed two pages in length from individuals familiar with the volunteer and/or community service contributions. Award may be held only once.

Donor(s): The Guelph Community Foundation
Qualification(s): Undergraduate degree students with more than 5.0 credits and less than 10.5 credits of full-time study must have maintained a cumulative 70% average in all courses completed (5.0 credits or more) in the first year study and have demonstrated leadership and financial need. Applicants must be graduates of a City of Guelph high school and be Canadian citizens or permanent residents at the time of application. Selection will include equally weighted consideration of academic performance, leadership both on and off campus and financial need.
Amount: 1 award of $1,000

Class 1930 Scholarship [I0061]

A student may receive this scholarship once only. Application not required

Donor(s): Students’ Council of the Macdonald Institute
Qualification(s): Student entering semester level 3, 4 or 5 who obtains highest standing in the B.A.SC. program
Amount: 1 award of $200

Class of 1970 Scholarship [I0424]

Established by the Silver Anniversary celebrants to commemorate the 25th anniversary of the University Class of 1970. This award rotates among all six colleges on the main campus. The appropriate College Award Committee selects the candidate each Fall semester and the candidate is announced each October. Application not required.

Donor(s): Class 1970: 25th Reunion Gift
Qualification(s): Outstanding student in any degree program who has attained at least an 80% average in two consecutive semesters resulting in placement on the Deans’ Honours List.
Amount: 1 award of $1,400

Collins Barrow Award [I0040]

Offered by Collins Barrow, a national firm of Chartered Accountants. Awarded in the Winter semester. Application not required.

Donor(s): Collins Barrow Chartered Accountants
Qualification(s): Student with the highest grade in course AGEC*3330, Intermediate Accounting, in the Fall semester. In the event of a tie, the scholarship will be given to the student with the highest cumulative average in their program.
Amount: 1 award of $500

CSAHS Student Volunteer Scholarship [I0482]

Inspired by Theresa Firestone, FACS ’78, and funded by the Harshman Fellowships Society and Pfizer Canada Inc. Students may apply on their own or be recommended by other students, faculty members or administrators from non-profit organizations. Applications are available from the CSAHS Dean’s Office. Apply to the CSAHS Dean’s Office with a completed application form, a summary letter outlining the student’s volunteer experience and what has been gained or learned from this experience that has enhanced his/her personal growth and/or career goals, and 2 letters of recommendation by April 1. This scholarship will be awarded to the Student Volunteer of the year to help defray the costs associated with volunteerism. One award of $350 (an equal amount will be awarded to the charitable organisation of the recipients choice).

Donor(s): Harshman Fellowship Society and Pfizer Canada Inc.
Qualification(s): Full-time undergraduate students in any degree program offered by the College of Social and Applied Human Sciences and have completed at least 15 course credits with a minimum cumulative 70% average.
Amount: 1 award of $350

David F. Boyes Apiculture Scholarship [I0031]

Established in memory of David Boyes a technician in the Apiculture Field Laboratory. Application not required.

Donor(s): The Apiculture Club
Qualification(s): Student registered in the Fall semester who achieves high academic standing in Introductory Apiculture (ENVB*2210) in the previous year, demonstrates an interest in apiculture and who has participated in extracurricular activities.
Amount: 1 award of $150

Deans’ Scholarships [I0323]

Offered by the Board of Governors. Recipients will be selected by each of the College Awards Committees. Winners will be notified in the Fall semester. Application not required.

Donor(s): Board of Governors
Qualification(s): Students registered in any degree program. The primary academic criteria is placement on the Deans’ Honours List for two consecutive semesters, excluding semesters 7 and 8, in the previous Fall/Winter/Spring sequence.
Amount: 150 awards of $1,000

Dorothy Britton Memorial Scholarship [I0015]

Scholarships are awarded from funds donated from the estate of Dorothy Britton (MAC ’39). Awarded on the basis of high academic achievement. Application not required.

Donor(s): The Estate of Dorothy Britton
Qualification(s): Students entering semesters 4 or 5 of the B.A.SC. program or the School of Hospitality and Tourism Management, Housing and Real Estate Management or Marketing Management majors of the B.COMM. program are eligible.
Amount: 6 awards of $1,500

Elizabeth Landels Casselman Scholarship [I0050]

Awarded from the estate of Elizabeth Landels Casselman. Apply by April 1 to the Department of Family Relations and Applied Nutrition, stating leadership qualities and participation in extracurricular activities.

Donor(s): Elizabeth Landels Casselman Estate
Qualification(s): Student entering the semester 5 of the B.A.SC. with a minimum cumulative average of 80% and demonstrated excellence and leadership in extracurricular activities.
Amount: 1 award of $1,700

Ellen Nilsen Memorial Award [I0047]

Offered by the friends of Ellen Nilsen. Apply to the Director of the Collaborative International Development Studies Programme, Rm 702 MacKinnon Building, by October 7.

Donor(s): The Friends of Ellen Nilsen
Qualification(s): Academically outstanding woman from a developing country who is registered at the University of Guelph in an undergraduate or a graduate program and who has demonstrated a commitment to social change.
Amount: 1 award of $1,500

Ethel M. Christie Scholarship [I0057]

Established by Dr. George I. Christie, former President of the Ontario Agricultural College, and his daughter, Margaret C. Hearn, in memory of Ethel M. Christie. Application not required.

Donor(s): Dr. George I. Christie & Margaret C. Hearn
Qualification(s): Student in the B.A.SC. program who has achieved highest standing in 1.50 or more credits in English.
Amount: 1 award of $100
<table>
<thead>
<tr>
<th>Scholarship Name</th>
<th>Amount</th>
<th>Qualification(s)</th>
<th>Donor(s)</th>
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</thead>
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<td><strong>Evelyn Matheson Pepper Memorial Scholarship</strong> [I0538]</td>
<td>1 award of $1,000</td>
<td></td>
<td>Ms. Barbara Stuart and Ms. Susan Pepper</td>
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<tr>
<td><strong>George A. Gray OAC '51 Varsity Scholarships</strong> [I0487]</td>
<td>1 award of $500</td>
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<td>Mr. Eugene Peterson</td>
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<tr>
<td><strong>Gertrude R. Peterson Memorial Scholarship</strong> [I0234]</td>
<td>2 awards of $2,000</td>
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<td>Mr. Eugene Peterson</td>
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<tr>
<td><strong>Herbert Scherf Memorial Scholarship</strong> [I0252]</td>
<td>1 award of $200</td>
<td></td>
<td>FACS Student Administrative Council</td>
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<tr>
<td><strong>Governor General’s Medal</strong> [C0044]</td>
<td>1 Silver medal</td>
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<td>The Chancellery</td>
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<td><strong>Guelph Varsity Athletic Accessibility Scholarship</strong> [I0518]</td>
<td>2 awards of $1,250</td>
<td></td>
<td>Alumni and friends of the University of Guelph</td>
</tr>
<tr>
<td><strong>Helen G. West Memorial Scholarship</strong> [I0512]</td>
<td>3 awards of $3,000</td>
<td></td>
<td>The Harshman Foundation</td>
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<tr>
<td><strong>H.H. Harshman Foundation Scholarships</strong> [I0123]</td>
<td>1 award of $2,000</td>
<td></td>
<td>Nancy Sawyer, Mary H. Simpson, their families and Belle Shirlaw</td>
</tr>
<tr>
<td><strong>Janet M. Wardlaw Medal</strong> [C0096]</td>
<td>1 award of $500</td>
<td></td>
<td>Faculty, staff, alumni and students, formerly FACS</td>
</tr>
<tr>
<td><strong>Jean C. Bradley Memorial Prize</strong> [C0032]</td>
<td>1 award of $300</td>
<td></td>
<td>Graduating Class of Mac ’29</td>
</tr>
</tbody>
</table>

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**Goyer Family Centre for Students with Disabilities Volunteer Award** [I0563]

In recognition of the many students who volunteer their time and talents to assist their colleagues registered with the Centre for Students with Disabilities (CSD) and to encourage others to do so, Dr. John and Mrs. Katherine Gonder provide this award to a student who has volunteered in the CSD. The award will be made on the basis of the volunteer activities undertaken by the student at the CSD, one letter of reference, and a personal statement that outlines the time commitment and types of volunteer activities undertaken as well as an indication of how this was a valuable and rewarding volunteer experience. Apply by January 15th to the CSD (c/o Advisor to Students with Disabilities) by submitting above documentation.

Donor(s): Dr. John and Mrs. Katherine Gonder

Qualification(s): All students registered in the College of Social and Applied Human Science (CSAHS) that have completed between 10.0 and 15.0 course credits with a minimum 70% cumulative average, and have been involved as volunteers with the CSD.

Amount: 1 award of $900
<table>
<thead>
<tr>
<th>Scholarship Name</th>
<th>[I0488] Jean Carter Memorial Gerontology Scholarship</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>Established by the family and friends of Jean Carter, a Mac’38 graduate who was actively involved in the field of educational gerontology. The scholarship is available for students in the B.A.SC. program majoring in Gerontology.</td>
</tr>
<tr>
<td>Qualification(s)</td>
<td>Undergraduate student in the CSAHS who has completed at least 10.0 credits with a minimum 70% cumulative average and has made a significant contribution to the care of the elderly. Preference will be given to students in the B.A.SC. program majoring in Gerontology.</td>
</tr>
<tr>
<td>Amount</td>
<td>1 award of $1,000</td>
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</tbody>
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<table>
<thead>
<tr>
<th>Scholarship Name</th>
<th>[C0279] Joan (Ellerington) Tanner Memorial Scholarship</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>This endowment fund has been established by her family in memory of Mrs. Joan (Ellerington) Tanner, a 1957 graduate of the Macdonald Institute. Application not required.</td>
</tr>
<tr>
<td>Qualification(s)</td>
<td>Student graduating in any given academic year with the highest academic standing in the last 4 semesters of the B.A.SC. program</td>
</tr>
<tr>
<td>Amount</td>
<td>1 award of $1,000</td>
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</tbody>
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<table>
<thead>
<tr>
<th>Scholarship Name</th>
<th>[I0093] John Eccles Scholarship</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>Established by the faculty, staff and friends of Dr. John Eccles, a Mart’s 59 graduate of the Macdonald Institute. Application not required.</td>
</tr>
<tr>
<td>Qualification(s)</td>
<td>Full-time student registered in semester 2, 3, 4, 5 or 6 and living in residence in the Winter semester who has a cumulative 80% average or who is in the top 10% of his/her program. The recipient must have demonstrated responsibility and leadership qualities through participation in residence related activities. Residence Life Staff and paid members of Interhall Council and Hall Councils are not eligible.</td>
</tr>
<tr>
<td>Amount</td>
<td>1 award of $1,000</td>
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</tbody>
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<table>
<thead>
<tr>
<th>Scholarship Name</th>
<th>[I0107] Katherine Fuller Scholarship</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>Established by Macdonald Institute Alumni in 1931 to honour Mrs. Katherine Fuller, the Superintendent of Macdonald Hall from 1904 until her retirement in 1931, and offered by the Mac-FACS Alumni Association. Application not required.</td>
</tr>
<tr>
<td>Qualification(s)</td>
<td>Full-time student in the B.A.SC. program or the Marketing Management or Housing and Real Estate Management major of the B.COM, program, who has completed between 5.0 and 10.0 course credits and has demonstrated a high level of academic achievement.</td>
</tr>
<tr>
<td>Amount</td>
<td>1 award of $1,000</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Scholarship Name</th>
<th>[I0045] Kenneth W. Hammond Award</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>The evaluation of the student will be based on the final essay in the &quot;Environmental Perspectives and Human Choice: 5000 Days&quot; course. The selection committee will be comprised of 4 persons: the donor, the Director of the Arboretum, the Dean of Physical and Engineering Science and the Dean of Biological Science. Application not required.</td>
</tr>
<tr>
<td>Qualification(s)</td>
<td>Student who has best demonstrated an understanding of the world's resource situation and its proper use by humankind.</td>
</tr>
<tr>
<td>Amount</td>
<td>1 award of $1,000</td>
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</tbody>
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<thead>
<tr>
<th>Scholarship Name</th>
<th>[I0139] Kip Hunter Prize</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>For the best essay, written by an undergraduate in a philosophy course. The essay may be either a required assignment for a course (in which case either the student or the instructor may submit it) or it may be specially prepared for the competition. Submission of essays is to the Chair, Department of Philosophy, by the end of the 12th week of the Winter semester.</td>
</tr>
<tr>
<td>Qualification(s)</td>
<td>Any undergraduate who has registered for a philosophy course during the academic year in which the prize is awarded.</td>
</tr>
<tr>
<td>Amount</td>
<td>1 Book prize</td>
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<thead>
<tr>
<th>Scholarship Name</th>
<th>[I0446] Leonard Conolly Exchange Student Scholarship</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>Established by students, faculty, staff and friends to honour Prof. Leonard Conolly, professor of drama, Chair of the Department of Drama, 1981-88, and Associate Vice-President Academic, 1988-1992. Apply to the Centre for International Programs by April 5, for visiting during the subsequent Fall or Winter semesters.</td>
</tr>
<tr>
<td>Qualification(s)</td>
<td>Students, staff, faculty and friends of Dr. Leonard Conolly</td>
</tr>
<tr>
<td>Amount</td>
<td>1 award of $1,000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Scholarship Name</th>
<th>[I0082] Mac ‘69 Scholarship</th>
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</thead>
<tbody>
<tr>
<td>Description</td>
<td>Established in 1976, by the class of Mac ’69, in memory of classmate Patricia Cosgrove. Apply to Department of Family Studies and Applied Nutrition by April 1.</td>
</tr>
<tr>
<td>Qualification(s)</td>
<td>Students who have completed their 2nd or 3rd semester of the B.A.SC. program by April. Preference will be given to students showing general proficiency in both curricular and extracurricular work.</td>
</tr>
<tr>
<td>Amount</td>
<td>1 award of $600</td>
</tr>
</tbody>
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<thead>
<tr>
<th>Scholarship Name</th>
<th>[I0524] Mac-FACS Alumni Association Scholarship - Family Relations and Applied Nutrition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>Offered by the Mac-FACS Alumni Association. Awarded in the Fall semester. Application not required.</td>
</tr>
<tr>
<td>Qualification(s)</td>
<td>Full-time student in the Department of Family Relations and Applied Nutrition who has completed between 5.0 and 10.0 credits with the highest cumulative average above 80%.</td>
</tr>
<tr>
<td>Amount</td>
<td>1 award of $500</td>
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<table>
<thead>
<tr>
<th>Scholarship Name</th>
<th>[I0539] Marie-Pier Lamoureux Memorial Scholarship</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>Established by family and friends in memory of Marie-Pier Lamoureux-Jones, a 1988 graduate of the Applied Human Nutrition major in the B.A.SC. program. A student may only receive this scholarship once. Application not required.</td>
</tr>
<tr>
<td>Qualification(s)</td>
<td>Full-time undergraduate student entering semester 5, 6 or 7, who is enrolled in the Applied Human Nutrition major in the B.A.SC. program. The scholarship will be awarded to the student with the highest cumulative academic standing.</td>
</tr>
<tr>
<td>Amount</td>
<td>1 award of $1,000</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Scholarship Name</th>
<th>[I0270] May B. Stewart Scholarships</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>Established through the W.C. Macdonald Company of Montreal. Application not required.</td>
</tr>
<tr>
<td>Qualification(s)</td>
<td>Students with the highest cumulative average in the Child, Youth and Family and Gerontology majors entering semester level 5, 6, or 7. Students may receive only one May B. Stewart Scholarship.</td>
</tr>
<tr>
<td>Amount</td>
<td>2 awards of $200</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Scholarship Name</th>
<th>[I0429] Morton and Pauline Schmidt Memorial Scholarship</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>Established by the family and friends of Morton G. and Pauline E. Schmidt of Kitchener, Ontario to recognize their appreciation of their daughters' education at the University of Guelph. Application not required.</td>
</tr>
<tr>
<td>Qualification(s)</td>
<td>Student in semester 5 or above of the Applied Human Nutrition major of the B.A.SC. program with at least a 70% cumulative average and who does not hold another major scholarship concurrently. If two students are equally qualified, the student showing the greatest improvement in semester average will receive the award.</td>
</tr>
<tr>
<td>Amount</td>
<td>1 award of $1,500</td>
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<tr>
<td>Scholarship Name</td>
<td>Amount</td>
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<tr>
<td><strong>Ontario Women's Institute Scholarship [I0160]</strong></td>
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<tr>
<td>Offered by the Federated Women's Institute of Ontario. Apply to Dean's Office, College of Social and Applied Human Sciences, by April 1.</td>
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<tr>
<td><strong>Donor(s):</strong></td>
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<tr>
<td><strong>Qualification(s):</strong></td>
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<tr>
<td>Students graduating from the Applied Human Nutrition major of the B.A.Sc. program who have demonstrated an interest and aptitude in the area of crops and land reclamation.</td>
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<td><strong>Qualification(s):</strong></td>
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<tr>
<td>Students from Ontario with a minimum cumulative average of 70% standing. Selection will be made on the basis of academic standing in all courses to date and volunteer work at the Wellness Centre.</td>
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<td><strong>Amount:</strong></td>
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<td><strong>Qualification(s):</strong></td>
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<tr>
<td>Students graduating from the Applied Human Nutrition major of the B.A.Sc. program who have been accepted to a Dietetic Internship are eligible. The recipient will be the student with the highest academic standing.</td>
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<tr>
<td>Scholarship Name</td>
<td>Amount</td>
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<tr>
<td>------------------------------------------------------</td>
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</tr>
<tr>
<td>W.C. Winegard Medal [C0311]</td>
<td>1 Gold medal</td>
</tr>
<tr>
<td>W.N. Vaughan Medal [C0299]</td>
<td>1 award of $1,000</td>
</tr>
<tr>
<td>In-course Scholarships with Financial Need</td>
<td></td>
</tr>
<tr>
<td>3M Canada Scholarships [I0564]</td>
<td></td>
</tr>
<tr>
<td>Eleanor Morgan &amp; Bill Archibald Scholarships [I4540]</td>
<td></td>
</tr>
<tr>
<td>Erin Demers Memorial Scholarship [I0406]</td>
<td></td>
</tr>
<tr>
<td>Euclid-Hitachi Scholarships [I4517]</td>
<td></td>
</tr>
<tr>
<td>Graham Family Incentive Scholarship [I4506]</td>
<td></td>
</tr>
<tr>
<td>Helen G. West ACCESS Scholarship [I4391]</td>
<td></td>
</tr>
<tr>
<td>Kathleen and R. Douglas Kennedy Scholarship in CSAHS [I0546]</td>
<td></td>
</tr>
</tbody>
</table>

Last Revision: October 18, 2005

2005-2006 University of Guelph Undergraduate Calendar
<table>
<thead>
<tr>
<th>Scholarship/Program Name</th>
<th>Amount</th>
<th>Qualification(s)</th>
<th>Donor(s)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Walter and Marion MacDougald Scholarship [14530]</td>
<td>1 award of $500</td>
<td>Students demonstrating financial need and having financial need.</td>
<td>The Shaw Scholarship Committee</td>
<td>Established by the family of Walter and Marian MacDougald on the 50th wedding anniversary of their parents, in recognition of their gift of life-long learning to their five children, with the assistance of the Ontario government's OSOTF program. Apply by letter, including a summary of local agricultural activities and a completed Need Assessment Form, to Student Financial Services by October 7. ACCESS AWARD. Awarded in the Winter semester. ACCESS AWARD. A number of awards totalling $2,900.</td>
</tr>
<tr>
<td>Elizabeth Burton Bursaries [13503]</td>
<td>3 awards of $1,000</td>
<td>Students enrolled in the B.A.SC. program or the Hotel and Food Administration, Housing and Real Estate Management or Marketing Management majors of the B.COMM. program and the department of Environmental Biology in the B.SC., B.SC.(Agr.) or the B.SC.(Env.) degree programs. Students who have completed semester 4 (10.00 credits) and who have demonstrated financial need are eligible.</td>
<td>Mrs. Elizabeth Burton, with the assistance of the Ontario government's OSOTF program, to support students who wish to study full-time. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD. A number of awards totalling $2,900.</td>
<td>Established by the Class of '72: 25th Reunion Fund with the assistance of the Ontario government's OSOTF program to support students who wish to study full-time. Apply to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD. A number of awards totalling $2,900.</td>
</tr>
<tr>
<td>Award Name</td>
<td>Description</td>
<td>Amount</td>
<td>Qualification(s)</td>
<td>Donor(s)</td>
</tr>
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<td>-----------------------------------------------------</td>
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</tr>
<tr>
<td>George and Margaret J. Miles Memorial Bursary [I3544]</td>
<td>Established by the family to honour the memory of the parents, George and Margaret J. Miles, long life supporters of education. Apply with a completed Need Assessment Form and a letter describing involvement in extra-curricular activities to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD.</td>
<td></td>
<td>Preference will be given to students who participate and provide leadership in extra-curricular or community activities (examples include student government, charitable organization, volunteer work, Big Brothers/Sisters, contributions to school and/or community, etc.). Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).</td>
<td>The Estate of Howard and Myrtle Rogers</td>
</tr>
<tr>
<td>Gryphon Investment Council Bursaries [I3513]</td>
<td>Established by Gryphon Investment Counsel, with the assistance of the Ontario government's OSOTF program. Awarded in the Winter semester. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD.</td>
<td>Several varies</td>
<td>Preference will be given to candidates who have been or are members of a co-operative or credit union.</td>
<td>The Co-operatives, Credit Unions, friends and associates of Prof. R.P. Forshaw</td>
</tr>
<tr>
<td>Guelph Compassionate Health Bursary [I3061]</td>
<td>This bursary has been established and approved by the Student Health and Dental Committee to assist students facing unforeseen health needs above and beyond the benefits offered through the mandatory University of Guelph student health plan. Submit a Financial Need Assessment application accompanied by the physician recommendation, cost estimates and physician contact information to the Awards Officer, Student Financial Services. The application will be reviewed throughout the semester to handle emergencies immediately.</td>
<td>2 awards of $1,500</td>
<td>Preference will be given to students who are, or have been, active in the 4-H Club and/or a Women's Institute.</td>
<td>The Co-operatives, Credit Unions, friends and associates of Prof. R.P. Forshaw</td>
</tr>
<tr>
<td>Guelph Student Assistance Program [I3056]</td>
<td>These bursaries have been established and approved by undergraduate students through student referendum to assist undergraduate and University of Guelph campus diploma students in financial need. Apply to Student Financial Services with a completed Need Assessment Form by October 7. Typically, awarded in the Winter semester.</td>
<td>Several varies to a maximum $1,500</td>
<td>Students in the B.A.SC. program with established financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).</td>
<td>Dr. Andrew Grant Misener, President of Friends of the University of Guelph, Inc.</td>
</tr>
<tr>
<td>Howard and Myrtle Rogers Bursaries [I3537]</td>
<td>Provided by the Estate of Howard and Myrtle Rogers, with the assistance of the Ontario government's OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD.</td>
<td>10 up to $2,000</td>
<td>Students with demonstrated financial need. Preference will be given to students from Wellington County. Students are encouraged to apply for an award in each year of study. The award may have been held in previous years but students must demonstrate on-going financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).</td>
<td>The Estate of Howard and Myrtle Rogers</td>
</tr>
<tr>
<td>International Emergency Medical Aid Assistance [I3059]</td>
<td>The University of Guelph provides support to International undergraduate students that are faced with unexpected, or unforeseen financial shortfalls due to a medical issue not covered by UHIP or the Student Dental/Medical insurance plans. Students should apply to the International Student Advisor, in the Centre for International Programs office, by completing an International Student Financial Need Assessment Form and submitting documentation to support the medical issue. These bursaries are awarded on an on-going basis.</td>
<td></td>
<td>Any International student registered in a degree program at the University of Guelph with a minimum registration of 1.50 course credits.</td>
<td>University of Guelph</td>
</tr>
<tr>
<td>International Student Bursaries [I3009]</td>
<td>Established in memory of Irvine and Grace Black, by friends and family to recognize their many contributions to young people. Irvine, a well-known sheep breeder, was a judge at College Royal and the Royal Winter Fair for over fifty years, and Grace was active in the Women's Institute and the Fergus Fall Fair. Apply to Student Financial Services with a completed Need Assessment Form and a letter outlining involvement in the 4-H Club and/or a Women's Institute by October 7. Awarded in the Winter semester.</td>
<td>Several varies</td>
<td>Students who are citizens of Third World countries, as defined by the United Nations, who are registered in a degree or diploma program and who demonstrate financial need.</td>
<td>Family and friends of Irvine and Grace Black</td>
</tr>
<tr>
<td>Irvine and Grace Black Memorial Bursary [I3051]</td>
<td>Established by the family to honour the memory of Irvine and Grace Black, by friends and family to recognize their many contributions to young people. Irvine, a well-known sheep breeder, was a judge at College Royal and the Royal Winter Fair for over fifty years, and Grace was active in the Women's Institute and the Fergus Fall Fair. Apply to Student Financial Services with a completed Need Assessment Form and a letter outlining involvement in the 4-H Club and/or a Women's Institute by October 7. Awarded in the Winter semester.</td>
<td></td>
<td>Students in the B.A.SC. program with established financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).</td>
<td>Dr. Andrew Grant Misener, President of Friends of the University of Guelph, Inc.</td>
</tr>
<tr>
<td>Mary I. Whitelock Bursaries [I3524]</td>
<td>Established by the estate of Mary I. Whitelock, a friend of the University, with the assistance of the Ontario government's OSOTF program, to assist students who wish to study full-time but who need financial support to do so. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD.</td>
<td>13 awards of $2,000</td>
<td>Students in the B.A.SC. program with established financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).</td>
<td>The Estate of Mary I. Whitelock</td>
</tr>
<tr>
<td>Mildred Taylor Misener Bursaries [I3012]</td>
<td>Established by the estate of Mary I. Whitelock, a friend of the University, with the assistance of the Ontario government's OSOTF program, to assist students who wish to study full-time but who need financial support to do so. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD.</td>
<td></td>
<td>Students in the B.A.SC. program with established financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).</td>
<td>The Co-operatives, Credit Unions, friends and associates of Prof. R.P. Forshaw</td>
</tr>
<tr>
<td>Ontario Co-operatives R.P. Forshaw Bursary [I3013]</td>
<td>The Co-operatives, Credit Unions, friends and associates of Prof. R. P. Forshaw have established this bursary. Apply to Student Financial Services with a completed Need Assessment Form by October 7. Awarded in the Winter semester.</td>
<td>1 award of $400</td>
<td>Students in the B.A.SC. program with established financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).</td>
<td>The Co-operatives, Credit Unions, friends and associates of Prof. R.P. Forshaw</td>
</tr>
</tbody>
</table>
### Robert Auger Humanitarian Bursary [I3058]
This award, of up to $500, has been established through the generosity of staff in the Office of Registrarial Services, family and friends of Robert Auger, a former Associate Registrar at the University of Guelph. It is intended as an emergency fund to assist students who unexpectedly find themselves in difficult financial circumstances, to provide grocery, and textbook vouchers.

**Donor(s):** Office of Registrarial Services  
**Qualification(s):** Students who require assistance through this fund should apply in confidence to the Assistant Registrar, Financial Aid, Student Financial Services.  
**Amount:** Several awards of $500

### Scotiabank Bursaries [I3532]
Established by Scotiabank, with the assistance of the Ontario government's OSOTF program, to assist students with financial need to continue their studies as full-time students. Distributed in the Winter semester. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

**Donor(s):** Scotiabank  
**Qualification(s):** Full-time students with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).  
**Amount:** 2 awards of $1,500

### Stoney Creek Women's Institute Bursaries [I3017]
Established by the Stoney Creek Women's Institute to commemorate the Sixtieth Anniversary of its founding. Apply by October 7 to Student Financial Services.

**Donor(s):** Stoney Creek Women's Institute  
**Qualification(s):** Students from the region of Hamilton-Wentworth in the B.A.Sc. program whose scholastic standing is satisfactory and who require financial aid.  
**Amount:** 2 awards of $250

### University of Guelph Access Bursaries [I3522]
Provided by alumni and friends of the University, with the assistance of the Ontario government's OSOTF program, to support undergraduate, graduate or OAC (Guelph) diploma students who wish to study full-time but who need financial support to do so. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD. Variable amounts from $500 to $2,000

**Donor(s):** Alumni and Friend of the University of Guelph  
**Qualification(s):** Full-time students with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).  
**Amount:** Several awards of $500, Several awards of $2,000

### University of Guelph Alumni Association Access Bursaries [I3523]
Established by the University of Guelph Alumni Association, with the assistance of the Ontario government’s OSOTF program, to support students who wish to study full-time but who need financial support to do so. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

**Donor(s):** University of Guelph Alumni Association  
**Qualification(s):** Full-time in-course students with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).  
**Amount:** 2 awards of $1,000

### University of Guelph Child Care Bursaries [I3053]
In order to provide accessible child care to students with (a) child(ren), the University of Guelph offers bursaries to students who have demonstrated financial need. Apply to Student Financial Services, with a completed Need Assessment Form by October 7. Awarded in the Winter semester. A number of awards of between $500 and $2,000.

**Donor(s):** University of Guelph  
**Qualification(s):** Students, supporting (a) child(ren) who demonstrate greatest financial need, to offset the costs of child care. To be eligible, undergraduate students must be full-time (as defined by OSAP regulations) and Canadian citizens or permanent residents with demonstrated financial need.  
**Amount:** Several awards of $500, Several awards of $2,000

### University of Guelph International Bursary [I3048]
The University of Guelph provides support to International undergraduate students that are faced with unexpected, or unforeseen financial shortfalls while registered on campus. Students should apply to Benny Quay, in the Centre of International Programs office by completing an International Student Financial Need Assessment Form. These bursaries are awarded on an on-going basis.

**Donor(s):** University of Guelph  
**Qualification(s):** Any International student registered in a degree program at the University of Guelph with a minimum registration of 1.50 course credits.  
**Amount:** Several varies

### University of Guelph Undergraduate In-Course Bursaries (MET-TR-UG) [I3037]
The University of Guelph offers in-course bursaries to students who have demonstrated financial need. Apply to Student Financial Services, with a completed Need Assessment Form by October 7. Awarded in the Winter semester.

**Donor(s):** University of Guelph  
**Qualification(s):** Ontario students registered for full-time studies (as defined by OSAP) in a degree program with demonstrated financial need and a minimum of 2.0 course credits completed.  
**Amount:** Several awardsranging in value from $100 to $3,000

### University of Guelph Undergraduate In-Course Bursaries (NON OSAP TR) [I3047]
The University of Guelph offers in-course bursaries to students who have demonstrated financial need. Apply to Student Financial Services, with a completed Need Assessment Form by October 7. Awarded in the Winter semester.

**Donor(s):** University of Guelph  
**Qualification(s):** Undergraduate students registered for full-time studies (as defined by OSAP) in a degree program with demonstrated financial need and a minimum of 2.0 course credits completed.  
**Amount:** Several awards to a maximum of $800

### University Police Bursaries [I3019]
The University Police have made available a number of bursaries. Apply to Student Financial Services with a completed Need Assessment Form by October 7.

**Donor(s):** The University Police  
**Qualification(s):** Full-time undergraduate and graduate students who have financial need.  
**Amount:** Several varies

### University Student Assistance Program [I3057]
These bursaries have been established and approved by the University of Guelph to assist undergraduate and University of Guelph campus diploma students in financial need. Apply to Student Financial Services with a completed Need Assessment Form by October 7. Typically, awarded in the Winter semester.

**Donor(s):** University of Guelph  
**Qualification(s):** Full-time undergraduate students registered in any degree program with demonstrated financial need. Preference will be given to students who are not eligible for provincial and/or federal assistance programs such as Ontario Student Assistance Program (OSAP) and/or Canada Student Loan Program (CSLP).  
**Amount:** Several awards of varying amount to a maximum of $1,000

### In-course Travel Grants

#### Arthur D. Latornell Undergraduate Travel Grants [T0058]
An endowment fund established in memory of Arthur D. Latornell, OAC '50, who had a life-long professional career in resource management and conservation and a special interest in helping young people. The funds are given to provide twenty-five travel grants. These travel grants are offered to assist students in attending conferences, courses, co-op student exchanges or study abroad programs in these areas. Students may receive this grant only once. Apply to Student Financial Services. Deadline dates are June 1 for Fall travel, October 1 for Winter travel, and February 1 for Summer travel. Up to 80% of estimated travel costs to a maximum of $1,000.

**Donor(s):** The Estate of Arthur D. Latornell  
**Qualification(s):** Students in semester 3 and above. Students must have at least a 70% average and a primary area of interest related to natural resources management, environmental science, conservation, soil science and/or rural development. Students will be asked to submit a one-page review of their travel experience, including the role the travel grant played, to the University after completion of the travel.  
**Amount:** several up to a maximum of $1000
<table>
<thead>
<tr>
<th>Scholarship</th>
<th>Details</th>
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<tbody>
<tr>
<td><strong>Canadian Friends of the Hebrew University in Jerusalem Travel Bursary [T4532]</strong></td>
<td>The Canadian Friends of the Hebrew University of Jerusalem, with the assistance of the Ontario government's OSOTF program, have established these travel scholarships to assist students study at the Hebrew University of Jerusalem. Apply by letter with a completed Need Assessment Form to Student Financial Services by May 1. ACCESS AWARD. Up to three awards totalling $7500. <strong>Donor(s):</strong> Canadian Friends of the Hebrew University in Jerusalem <strong>Qualification(s):</strong> Undergraduate degree students in either the second or third year of study, Masters students in the first year of study, and Doctoral students in the first three years of study are eligible to be considered. Applicants must provide documentation that they have approval from the Hebrew University of Jerusalem (i) to take courses and (ii) for the period of the visit. Students must also arrange appropriate University of Guelph approvals for a &quot;Letter of Permission&quot; prior to applying. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards). <strong>Amount:</strong> 3 Awards with varying amounts</td>
</tr>
<tr>
<td><strong>Richard and Sophia Hungerford Undergraduate Travel Scholarships [T4508]</strong></td>
<td>The estate of Richard and Sophia Hungerford, with the assistance of the Ontario government's OSOTF program, has established an endowment to provide travel scholarships to undergraduate students with demonstrated financial need who wish to study in developing countries, or attend conferences on development. Apply to Student Financial Services with a description of the intended travel, an estimate of the travel costs and a completed Need Assessment Form at least one month prior to departure. Deadline dates are June 1 for Fall travel, October 1 for Winter travel, and February 1 for Summer travel. ACCESS AWARD. <strong>Donor(s):</strong> The Estate of Richard Hungerford <strong>Qualification(s):</strong> Registered undergraduate students with demonstrated financial need who have at least a 70% cumulative average in the last 2 semesters of full-time equivalent study are eligible. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards). <strong>Amount:</strong> Several awards of varying amounts to a maximum of $1,000</td>
</tr>
<tr>
<td><strong>University of Guelph Travel Scholarships [T0421]</strong></td>
<td>The University of Guelph, through the sale of Guelph London House, has established an endowment to provide travel scholarships to undergraduate and graduate students who wish to study outside of Canada but need financial support to do so. A total of $35,000 is available in the fund. Apply to Student Financial Services with a completed Travel Grant Application and Financial Need Assessment Form by October 1 for Winter travel, February 1 for Spring travel and June 1 for Fall travel. <strong>Donor(s):</strong> University of Guelph <strong>Qualification(s):</strong> Registered undergraduate and graduate students that have completed 5.0 credits with demonstrated financial need who have a minimum 70% cumulative average in the last two semesters of full-time equivalent study are eligible to apply. The value of the award will depend on the assessed financial need. The scholarship can cover additional costs of travelling outside of Canada including: airfare, administrative costs, and differential costs of accommodation. <strong>Amount:</strong> Several up to $1,000</td>
</tr>
</tbody>
</table>
Bachelor of Arts

Please refer to the General Statement on Awards for:

• Award Eligibility
• ACCESS Awards Eligibility
• Ontario Student Opportunity Trust Fund (OSOTF) Program
• How Awards are Paid

The University reserves the right to amend awards subject to the availability of funds.

Entrance Scholarships

Alumni Entrance Merit Scholarship, College of Arts [E0477]

Established the College of Arts and the Development and Public Affairs Office, Application not required.

Donor(s): Development and Public Affairs Office
Qualification(s): Student entering the B.A. program in the College of Arts in the Full semester with the highest admission average.
Amount: 1 award of $1,000

Amos & William Lowe Memorial Scholarship [E0158]

Endowed by the late William B. Lowe of Fort Francis, Ontario. Preference will be given first to eligible students from the district of Rainy River, then from the district of Kenora or Thunder Bay, and finally from the remaining districts of Northern Ontario. Application not required. Two awards of $1,250 paid in two installments of $625.

Donor(s): William B. Lowe and Amos Edgar Lowe
Qualification(s): Student entering any of the undergraduate degree programs of the Ontario Agricultural College.
Amount: 2 awards of $1,250

Angelo and Frank Agro Undergraduate Scholarship [E0520]

Provided by the Agro Scholarship Fund. Apply by April 1 to Student Financial Services, including a covering letter describing your activities within 4H (details of 4H club membership, creativity in support of 4H activities, participation in activities and events, volunteer leadership roles, etc.) and a letter of reference from a 4H club official attesting to your involvement. $4,000 ($1,000 annually for four years).

Donor(s): The Frank Agro Estate
Qualification(s): Full-time students entering semester 1 who have attained a minimum 80% admission average in their graduating year from high school. The scholarship will be awarded to the eligible student demonstrating the greatest past or continuing involvement with 4H activities. Recipients must maintain full-time studies and at least a 70% program average each year for continuation of the award.
Amount: 1 award of $4,000

Board of Governors' Scholarships [E0317]

The scholarship will be paid in eight equal installments with the first and second payments payable shortly after registration in semesters 1 and 2. The 3rd to 8th payments are contingent upon obtaining a minimum average of 80% over the previous two semesters of full-time study. Students who fail to qualify for a payment may re-qualify by subsequently obtaining an 80% or better average over the previous two semesters of full-time study. Application not required. Twenty-five awards of $8,000 ($2,000 annually for 4 years).

Donor(s): Board of Governors
Qualification(s): Outstanding students entering semester 1
Amount: 25 awards of $8,000

December 6th Memorial Scholarship [E0005]

This scholarship, established by the Faculty Association, is awarded in memory of the fourteen women murdered in December 1989 at Ecole Polytechnique and is intended to attract women to a profession that is largely comprised of men. Application not required. $2,250 ($750 in each of semesters 1, 3 and 5).

Donor(s): University of Guelph Faculty Association
Qualification(s): Female student who is a Canadian Citizen or Permanent resident of Canada enrolled in the College of Physical and Engineering Science. The recipient will be selected on the basis of academic performance. For continued eligibility beyond semester 1, the student must maintain a minimum of 70% cumulative average. Demonstrated financial need may also be considered.
Amount: 1 award of $2,250

Earl B. MacNaughton Entrance Scholarships [E0172]

Established by friends, faculty, staff, alumni and students of the University to honour Earl B. MacNaughton, former head of the Department of Physics and founding Dean of the College of Physical Science. Application not required.

Donor(s): Earl B. MacNaughton
Qualification(s): Students with high academic standing, entering an honours program in the College of Physical and Engineering Science. Emphasis will be given to academic achievement in high school science and mathematics.
Amount: 4 awards of $1,000

Elite Swine Entrance Scholarship [E0532]

This award is provided by Elite Swine Inc. to assist students entering an OAC undergraduate Program. High schools will forward nominations to the OAC Awards Committee by September 15.

Donor(s): Elite Swine Inc.
Qualification(s): High school graduates who have applied to OAC undergraduate programs, based on admission average, contributions to their schools and communities and on their potential to become leaders in society. Preference will be given to students with a strong interest in animal science, particularly swine production.
Amount: 5 awards of $1,000

Frederick Hung Memorial Award [E0320]

The colleagues and family of the late Prof. Frederick Hung make available an entrance award to encourage students to major in Geography. Application not required.

Donor(s): The family and friends of Frederick Hung
Qualification(s): Student entering the Bachelor of Arts (Geography Major) degree program directly from high school. The award will be given to the student who has achieved the highest mark in grade 12U/M Geography or its equivalent and at least an 80% average overall.
Amount: 1 award of $900

Gordon W. Innes Scholarship [E0140]

Established by the Gordon W. "Sparky" Innes Scholarship Fund Committee of the Woodstock Agricultural Society. Application not required.

Donor(s): Gordon W. 'Sparky' Innes Scholarship Fund Committee of the Woodstock Agricultural Society
Qualification(s): Student from Oxford County with the highest admission average.
Amount: 1 award of $1,400

Honours Mathematics or Statistics Scholarship [E0131]

Application not required.

Donor(s): Faculty of the Department of Mathematics and Statistics, via the CPES Scholarship Fund
Qualification(s): Student entering the first semester level of the B.SC. or B.A. program who declares the intention to pursue an honours program in Mathematics or Statistics. The scholarship will be made in 2 installments of $250 in each of the student's first 2 semesters with the second installment to be conditional upon the student obtaining an average of 80% in the 1st semester.
Amount: 1 award of $500

International Student Entrance Scholarships [E0408]

In support of the University's strategic direction of internationalism, entrance scholarships are available each Fall semester to the top international students entering their first semester of an undergraduate degree program at the University of Guelph. Applicants must submit all relevant documentation for admission consideration by March 1 to be considered for a scholarship. These scholarships are awarded on a competitive basis. Application not required.

Donor(s): University of Guelph
Qualification(s): Students on a "student visa" entering an undergraduate degree program at the University of Guelph with a record of high academic achievement and extracurricular involvement, and studying full-time. This award is offered for the first year of study.
Amount: Several awards ranging in value from $500 - $6,000

J.D. MacLachlan Scholarship [E0170]

Provided by the family of J.D. MacLachlan. Application not required.

Donor(s): The J.D. MacLachlan Trust
Qualification(s): Student entering the University with the highest admission average.
Amount: 1 award of $1,500
### IX. Scholarships and Other Awards, Bachelor of Arts

<table>
<thead>
<tr>
<th>Scholarship Name</th>
<th>Amount</th>
<th>Qualification(s)</th>
<th>Donor(s)</th>
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</thead>
<tbody>
<tr>
<td><strong>Lincoln Alexander Chancellor's Scholarship [E0493]</strong></td>
<td></td>
<td>Students with a minimum 80% average with a record of leadership in the previous Fall and Winter semesters. One award of $12,000 ($3,000 annually for 4 years).</td>
<td>Many Donors</td>
</tr>
<tr>
<td><strong>McArthur-Humphries Scholarship [E0183]</strong></td>
<td></td>
<td>Preference will be given to those students from Lanark and Wellington Counties. An equal number of awards are available to students from each county. The second installment will be paid on successful completion of MUSC<strong>1500 and registration in MUSC</strong>1510. Apply when signing up for an audition for MUSC**1500.</td>
<td>Wilhelmina McArthur-Humphries Trust Fund</td>
</tr>
<tr>
<td><strong>Mary Alice &amp; Marion Munn Memorial Entrance Scholarship [E0418]</strong></td>
<td>2 awards of $20,000</td>
<td>Students entering the B.A. program intending to major in Music who best combines excellent potential in the area of vocal studies with involvement in extra-curricular music activities, particularly choir or other forms of vocal performance.</td>
<td>Dr. John Munn</td>
</tr>
<tr>
<td><strong>P.A.J. Clarke Family Scholarship [E0381]</strong></td>
<td>$1,000</td>
<td>Students with a minimum 80% average. Preference will be given to all applicants.</td>
<td>Paul and Aileen Clarke</td>
</tr>
<tr>
<td><strong>President's Scholarship [E0238]</strong></td>
<td></td>
<td>Students with a minimum 80% average who have demonstrated the potential to become leaders in society.</td>
<td>Dick Brown</td>
</tr>
<tr>
<td><strong>The Jack and Lilian MacDonald Scholarship [E0379]</strong></td>
<td>$900</td>
<td>Students with a minimum 80% average. Preference will be given to candidates from Blenheim district or Kent County and who were raised, or have worked, on a farm.</td>
<td>Jack and Lilian MacDonald</td>
</tr>
</tbody>
</table>

**Note:** The University of Guelph has named one of these twelve prestigious entrance awards to recognize his financial contribution to University projects and programs. The University of Guelph has named one of these twelve prestigious entrance awards to recognize his financial contribution through his estate to the President's Entrance Scholarship program. The University of Guelph has named one of these twelve prestigious entrance awards in memory of Burton C. Matthews to recognize his insight and leadership in establishing the President's Entrance Scholarship program.

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The University of Guelph has named one of these twelve prestigious entrance awards in memory of Burton C. Matthews to recognize his leadership qualities best reflect those demonstrated by Dick Brown in University Athletics from 1968 to 1988.
Bill Klopp Memorial Award [E0150]
Priority will be given to a student from Kitchener-Waterloo Collegiate and Vocational Institute. Apply by letter, to Student Financial Services, outlining extracurricular activities and by completing the online Entrance Financial Need Assessment Application (N.A.F) by May 1. Students should complete the Entrance Financial Need Assessment application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student).

Donor(s): Ross and Mary Lou Klopp
Qualification(s): Presented to a student entering semester 1 from the cities of Kitchener or Waterloo who has demonstrated involvement in extracurricular activities who has shown satisfactory academic performance and who has financial need.
Amount: 1 award of $500

University of Guelph Entrance Scholarships [E0291]
This scholarship is based on the final admission average and program of study that is calculated by Admission Services, based on 12U, 12M, or OAC courses. These will be awarded based on the final high school grades that are submitted to the University in July. A minimum 85% final admission average guarantees an award. The scholarship will be applied directly to the student's financial account in two equal payments in the Fall and Winter Semesters. You can view the scholarship amounts at: http://www.uoguelph.ca/studfin/fall_current_merit.shtml. Application not required.

Donor(s): University of Guelph
Qualification(s): Students entering their first year of post-secondary studies for the first time and have a minimum 85% final admission average.
Amount: Several awards ranging in value from $1,500 to $3,000

University of Guelph Faculty Association Scholarship [E0292]
Award is payable at $750 per annum in the student's 1st, 3rd, and 5th semester levels, provided a cumulative average of at least a 70% is maintained. To receive the final payment, the recipient would normally be entering the 5th semester level within a period of 3 calendar years from the date of admission. Application not required.

Donor(s): University of Guelph Faculty Association
Qualification(s): Student entering an undergraduate degree program at the University of Guelph with the highest admission average who has been a resident in the County of Wellington during the previous twelve months.
Amount: 1 award of $2,250

W. Penri Morris Memorial Scholarship [E0430]
Established by the family in memory of Penri Morris, who was killed World War II action in 1944 at the age of 21. Penri grew up on the family fruit farm near Forest, Ontario. After graduating from high school, he joined the Royal Canadian Air Force and was attached to the Royal Air Force Bomber Command as a navigator at the time of this death. Awarded to the student with the highest cumulative academic performance above 75% in all courses of the last year in high school study (full-time or equivalent study). Application not required.

Donor(s): Prof. Rosalina Morris
Qualification(s): Students entering first year of any undergraduate program from North Lambton Secondary School in Forest, Ontario, in their absence, from Lambton County, and their absence, from Ontario.
Amount: 1 award of $1,000

Entrance Scholarships with Financial Need

Kenneth O. Hammill-Blount Canada Scholarship [E4356]
Established in honour of Kenneth Osborne Hammill, a long time friend of the University and retired plant manager of Blount Canada, with the assistance of the Ontario government's OSOTF program. The winner is chosen from the list of alternates for the President's Scholarships. President's Scholarship nominees should complete the online Entrance Financial Need Assessment application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student). Deadline to submit the application is May 1. ACCESS AWARD.

Donor(s): The Blount Foundation, Inc.
Qualification(s): Students from the Province of Ontario, with demonstrated financial need, entering one of the following programs on an annual rotation: B.A. in 98/99, then B.A.Sc., B.Comm., B.S.C., B.S.C.(Agr.), B.S.C.(Eng.), B.S.C.(Env.). Recipients must maintain a B+ average or higher, continue to demonstrate financial need and be full-time students in order to qualify for subsequent installments. During the summer after the 3rd year, the scholars will propose, to Student Financial Services, an enrichment experiential undertaking related to the student’s field of study; the grant application should include a detailed budget. A grant of up to $1,200 is available to support the undertaking, subject to continuing financial need and approval of the proposal by Student Financial Services. Upon completion, the student will write a report of the experience to Student Financial Services. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

Amount: 1 award of $9,600, payable in 8 payments of $1,200

Registrar’s Entrance Scholarships [E0384]
Established by the University of Guelph to support entering undergraduate students with identified financial need. Students should complete the online Entrance Financial Need Assessment application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student). Deadline to submit the application is May 1. Scholarship offers will be made in May. This award is not tenable with the University of Guelph Accessibility Scholarship, but can be held with all other Entrance Awards.

Donor(s): University of Guelph
Qualification(s): Students entering a full-time undergraduate program on the basis of financial need and academic merit.
Amount: 500 awards of $2,000

Rol-Land Farms Scholarship [E4519]
Established by Rol-Land Farms, with the assistance of the Ontario government's OSOTF program, to attract entering students who might otherwise not be able to attend university for financial reasons. Students should complete the online Financial Need Assessment application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student). Deadline to submit the application is May 1. ACCESS AWARD.

Donor(s): Rol-Land Farms
Qualification(s): Outstanding entering undergraduate degree students with demonstrated financial need and a minimum 80% cumulative average. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).
Amount: 13 awards of $2,000

University of Guelph Accessibility Scholarship [E3038]
Established by the University of Guelph to support entering undergraduate students with identified financial need. Students should complete the online Entrance Financial Need Assessment application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student). Deadline to submit the application is May 1. ACCESS AWARD.

Donor(s): University of Guelph
Qualification(s): Students entering a full-time undergraduate program on the basis of financial need and academic merit. This award is not tenable with the University of Guelph Accessibility Scholarship, but can be held with all other Entrance Awards. Application not required.

Amount: 13 awards of $2,000

University of Guelph Entrance Scholarships [E0291]
This scholarship is based on the final admission average and program of study that is calculated by Admission Services, based on 12U, 12M, or OAC courses. These will be awarded based on the final high school grades that are submitted to the University in July. A minimum 85% final admission average guarantees an award. The scholarship will be applied directly to the student's financial account in two equal payments in the Fall and Winter Semesters. You can view the scholarship amounts at: http://www.uoguelph.ca/studfin/fall_current_merit.shtml. Application not required.

Donor(s): University of Guelph
Qualification(s): Students entering their first year of post-secondary studies for the first time and have a minimum 85% final admission average.
Amount: Several awards ranging in value from $1,500 to $3,000

University of Guelph Faculty Association Scholarship [E0292]
Award is payable at $750 per annum in the student's 1st, 3rd, and 5th semester levels, provided a cumulative average of at least a 70% is maintained. To receive the final payment, the recipient would normally be entering the 5th semester level within a period of 3 calendar years from the date of admission. Application not required.

Donor(s): University of Guelph Faculty Association
Qualification(s): Student entering an undergraduate degree program at the University of Guelph with the highest admission average who has been a resident in the County of Wellington during the previous twelve months.
Amount: 1 award of $2,250

W. Penri Morris Memorial Scholarship [E0430]
Established by the family in memory of Penri Morris, who was killed World War II action in 1944 at the age of 21. Penri grew up on the family fruit farm near Forest, Ontario. After graduating from high school, he joined the Royal Canadian Air Force and was attached to the Royal Air Force Bomber Command as a navigator at the time of this death. Awarded to the student with the highest cumulative academic performance above 75% in all courses of the last year in high school study (full-time or equivalent study). Application not required.

Donor(s): Prof. Rosalina Morris
Qualification(s): Students entering first year of any undergraduate program from North Lambton Secondary School in Forest, Ontario, in their absence, from Lambton County, and their absence, from Ontario.
Amount: 1 award of $1,000

Entrance Scholarships with Financial Need

Bill Klopp Memorial Award [E0150]
Priority will be given to a student from Kitchener-Waterloo Collegiate and Vocational Institute. Apply by letter, to Student Financial Services, outlining extracurricular activities and by completing the online Entrance Financial Need Assessment Application (N.A.F) by May 1. Students should complete the Entrance Financial Need Assessment application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student).

Donor(s): Ross and Mary Lou Klopp
Qualification(s): Presented to a student entering semester 1 from the cities of Kitchener or Waterloo who has demonstrated involvement in extracurricular activities who has shown satisfactory academic performance and who has financial need.
Amount: 1 award of $500
Entrance Awards with Financial Need

Fred Hindle Bursary [E3500]
Awarded in memory of Fred Hindle, O.A.C.'38, a long-time generous supporter of his Alma Mater, who at the time of his death, wanted future students to have the same opportunity for an education as he had received. This bursary is awarded with the assistance of the Ontario government's OSOTF program. This bursary is dependent on continued demonstration of financial need and successful completion of study to advance into the next year. Students should complete the online Entrance Financial Need Assessment application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student). Deadline to submit the application is May 1. ACCESS AWARD. One award of $6,000 ($1,500 annually for 4 years).

Donor(s): W. Roy Hindle and family
Qualification(s): An entering O.A.C. degree student who has demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statement on Awards).
Amount: 1 award of $6,000

Harvey Graham Bursary [E3030]
Provided by Harvey Graham (OAC ’39), Students should complete the online Entrance Financial Need Assessment application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student). Deadline to submit the application is May 1.

Donor(s): Harvey Graham, OAC ’39
Qualification(s): Student who has demonstrated financial need with preference given to a student who comes from a working farm. Students graduating from Lindsay C. V. I., Fenelon Falls Secondary School, or E. Weldon Secondary School will be considered. Each application must be accompanied by a reference letter from the Reeve of the student’s home township.
Amount: 1 award of $1,700

International Student Entrance Bursaries [E3043]
In support of the University's strategic direction of internationalism, entrance bursaries are available each fall to assist some of our international students entering an undergraduate degree program at the University of Guelph. Students who have applied to the University of Guelph will receive an application form.

Donor(s): University of Guelph
Qualification(s): Students on a student visa entering an undergraduate degree program at the University of Guelph with demonstrated financial need.
Amount: Several awards of $1,000, Several awards of $3,000

Justine Eves Learning Disability Accessibility Bursaries [E3057]
In memory of Justine Eves who was dyslexic and died tragically in an automobile accident in 1995, the Justine Eves Foundation together with the University of Guelph provides these awards to entering undergraduate students who have a learning disability and who has demonstrated financial need. Students should complete the online Entrance Financial Need Assessment application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student). Deadline to submit the application is May 1.

Donor(s): Justine Eves Foundation
Qualification(s): Any entering undergraduate student that has financial need and a documented learning disability as defined by the Ontario Psychological Association.
Amount: 4 awards of $3,000

Robert Arthur Stewart Bursaries [E3272]
Established in memory of Mrs. Elsa H. Stewart of Pakenham, Ontario. Mr. Stewart graduated from the Ontario Agricultural College in 1933 and Mrs. Stewart from Macdonald Institute in 1932. Applicants for these bursaries should have a good academic record and an active interest in community affairs. A recommendation from the County agricultural representative or the secondary school principal is required and should be sent to Student Financial Services by April 1. Students should complete the online Entrance Financial Need Assessment application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student).

Donor(s): The Estate of Mrs. H. Stewart
Qualification(s): Students from the Ontario Counties of Lanark and Renfrew, and the Regional Municipality of Ottawa-Carleton, entering the 1st semester of a degree program at the University of Guelph.
Amount: 12 awards of $500

In-course Scholarships

A.M. Ross Centennial Scholarship [I0249]
Offered by Professor A.M. Ross (funded in part on royalties derived from the OAC Centennial Alumni publication of The College on the Hill). Application not required.

Donor(s): Professor A.M. Ross
Qualification(s): Students in the 7th semester of the honours English program who have the highest standing in ten or more English courses taken during the first 6 semesters at the University of Guelph. An 80% average in these courses is required.
Amount: 1 award of $1,000

Aino Menning Memorial Award [I0176]
Established in memory of Aino Menning. Application not required.

Donor(s): M. Tui Menning-Torrie
Qualification(s): Student majoring in Music who has completed 1.0 credits in Applied Music and has demonstrated special ability in piano performance and high academic standing. All else being equal, preference will be given to a female student, in order to encourage women in the field.
Amount: 1 award of $500

Andrea Laatsch Scholarship [I0168]
Application not required.

Donor(s): The friends of Andrea Laatsch
Qualification(s): Student who has high academic standing in the 2nd year of the German Studies program during the preceding calendar year and has made significant contributions to the University community.
Amount: 1 award of $250

Austrian Embassy Prize [I0022]
Provided by the Austrian Embassy. May be awarded in addition to Swiss or German Consulate Prizes. Application not required. Two book prizes.

Donor(s): The Austrian Embassy
Qualification(s): Advanced students of German who have shown excellence in the past two semesters, but need not be graduating. Application not required.
Amount: 2 Book prizes

Bill Taylor Memorial Scholarship [I0280]
Applications to include a supporting letter from a coach or intramural supervisor. Apply to Student Financial Services by April 1.

Donor(s): AMF Canada Ltd.
Qualification(s): Full-time student that has completed a minimum of 7.5 credits, but no more than 17.5 credits in the Winter term who has a cumulative 80% average or who is in the top 10% of his/her program. The recipient must have demonstrated responsibility and leadership qualities through participation in intramural or intercollegiate athletics.
Amount: 1 award of $900

Blackburn Scholarship [I0404]
In commemoration of the 125th Anniversary of the Ontario Agricultural College. Dr. D.J. Blackburn, a retired faculty member in Rural Extension Studies and former Director of the Associate Diploma Program has established this scholarship. Apply by letter, citing athletic contributions, to the OAC Awards Committee by April 1.

Donor(s): D.J. Blackburn
Qualification(s): OAC degree or diploma student who has participated in intercollegiate athletics and maintained a minimum cumulative average of 70% while registered at Guelph. Athletic excellence and leadership will be used to determine the recipient.
Amount: 1 award of $1,000

C.A.S.U. (College of Arts Student Union) Award [I0161]
Apply by letter to Student Financial Services by April 1 stating area of participation, dates of participation and nature of contribution. This award may be held once only.

Donor(s): C.A.S.U.
Qualification(s): Student within the College of Arts who has completed semesters 3 - 8, and who participated in the social, political and cultural life of the University.
Amount: 1 award of $200

Acknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student). Deadline to submit the application is May 1. ACCESS AWARD. One award of $6,000 ($1,500 annually for 4 years).

Qualification(s): An entering O.A.C. degree student who has demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statement on Awards).
Amount: 1 award of $6,000

Application not required.

Donor(s): M. Tui Menning-Torrie
Qualification(s): Student majoring in Music who has completed 1.0 credits in Applied Music and has demonstrated special ability in piano performance and high academic standing. All else being equal, preference will be given to a female student, in order to encourage women in the field.
Amount: 1 award of $500

Andrea Laatsch Scholarship [I0168]
Application not required.

Donor(s): The friends of Andrea Laatsch
Qualification(s): Student who has high academic standing in the 2nd year of the German Studies program during the preceding calendar year and has made significant contributions to the University community.
Amount: 1 award of $250

Austrian Embassy Prize [I0022]
Provided by the Austrian Embassy. May be awarded in addition to Swiss or German Consulate Prizes. Application not required. Two book prizes.

Donor(s): The Austrian Embassy
Qualification(s): Advanced students of German who have shown excellence in the past two semesters, but need not be graduating. Application not required.
Amount: 2 Book prizes

Bill Taylor Memorial Scholarship [I0280]
Applications to include a supporting letter from a coach or intramural supervisor. Apply to Student Financial Services by April 1.

Donor(s): AMF Canada Ltd.
Qualification(s): Full-time student that has completed a minimum of 7.5 credits, but no more than 17.5 credits in the Winter term who has a cumulative 80% average or who is in the top 10% of his/her program. The recipient must have demonstrated responsibility and leadership qualities through participation in intramural or intercollegiate athletics.
Amount: 1 award of $900

Blackburn Scholarship [I0404]
In commemoration of the 125th Anniversary of the Ontario Agricultural College. Dr. D.J. Blackburn, a retired faculty member in Rural Extension Studies and former Director of the Associate Diploma Program has established this scholarship. Apply by letter, citing athletic contributions, to the OAC Awards Committee by April 1.

Donor(s): D.J. Blackburn
Qualification(s): OAC degree or diploma student who has participated in intercollegiate athletics and maintained a minimum cumulative average of 70% while registered at Guelph. Athletic excellence and leadership will be used to determine the recipient.
Amount: 1 award of $1,000

C.A.S.U. (College of Arts Student Union) Award [I0161]
Apply by letter to Student Financial Services by April 1 stating area of participation, dates of participation and nature of contribution. This award may be held once only.

Donor(s): C.A.S.U.
Qualification(s): Student within the College of Arts who has completed semesters 3 - 8, and who participated in the social, political and cultural life of the University.
Amount: 1 award of $200
C.A.S.U. (College of Arts Student Union) Book Prizes [I0155]
Students may win the prize once only in each department or school. Apply to the Chair of the Department or the Director of the School by April 30.
Donor(s): C.A.S.U.
Qualification(s): Students enrolled in the College of Arts who have completed semesters 3, 4, 5 and 6, in the B.A. program. The recipient will have attained a 70% average in their major, and have demonstrated significant volunteer participation in the social, political or cultural life of the University of Guelph.
Amount: 8 Book prizes

C.G.A. Ontario Award for Excellence [C0025]
Apply by April 1 to Student Financial Services indicating intent to pursue the CGA program of professional studies. One award of $150 plus a credit equaling one year's tuition and course fees towards the CGA program (approximate value: $2,000)
Donor(s): Certified General Accountants Association of Ontario
Qualification(s): Graduating student who has a minimum cumulative average of 77% in Financial Accounting AGEC*2220; Management Accounting AGEC*2330; and Intermediate Accounting AGEC*3330.
Amount: 1 award of $150, plus 1 year tuition and course fees towards the CGA program. (approximate value of $2,000)

C.M. and D.J. Switzer Scholarships [I0276]
Apply by April 1 to Student Financial Services.
Donor(s): C.M. and D.J. Switzer
Qualification(s): One to a student who has completed semester 2 of the Diploma in Agriculture program and one to a student who has completed semester 4 of a degree program in OAC. Recipients will have a minimum of 70% standing and have demonstrated outstanding leadership ability in OAC student organizations, class executives and College Royal.
Amount: 2 awards of $2,000

Canadian Agri-Marketing Association (Ontario) Scholarship [I0541]
Provided by the Canadian Association of Agri-Marketing Association (Ontario). Apply to the OAC awards Committee by April 1 with a summary of participation in the Ag Ec & Biz Society and in agri-marketing initiatives as well as a letter of recommendation from a faculty member.
Donor(s): Canadian Agri-Marketing Association (Ontario)
Qualification(s): Student who has completed a minimum of 10.0 credits with a minimum cumulative average of 70% who are members of OAC and the Ag Ec & Biz Society. Selection will be based on a combination of academic achievement and a demonstrated interest in agri-marketing.
Amount: 1 award of $1,500

Canadian Federation of University Women/Guelph Scholarship [I0294]
The Guelph Chapter of the Canadian Federation of University Women provides this annual scholarship. Application not required.
Donor(s): The Guelph Chapter of the Canadian Federation of University Women
Qualification(s): Female student registered in Year 3 in the Fall semester in either B.S.C.(Eng.), B.A. (College of Physical and Engineering Science) or B.S.C. (College of Physical and Engineering Science) who has the highest cumulative average. Preference will be given to a student who has graduated from a secondary school in Wellington County.
Amount: 1 award of $2,000

CFRU Volunteer Award [I0215]
Apply to the C.F.R.U. Board of Governors by April 30.
Donor(s): Station Manager, CFRU
Qualification(s): Applicants must be registered or graduating from the University of Guelph and have volunteered at CFRU for at least one year. The recipients will be selected on the basis of academic performance and volunteer work at CFRU.
Amount: 2 awards of $250

Charles McGowan Memorial Prize [C0187]
Fund established in memory of the late Lieutenant Charles McGowan. Application not required.
Donor(s): Charles McGowan Memorial Fund
Qualification(s): Outstanding graduating student in an OAC degree program.
Amount: 1 award of $300

CIDS: Biophysical Environment and Development Award [C0461]
Donor(s): College of Social and Applied Human Science
Qualification(s): Outstanding student, who has achieved academic excellence, a minimum cumulative average of 80%, and service to the international community. The student will have completed at least 15.00 credits and will graduate in the Winter or expect to graduate in the Spring or Fall convocation ceremonies upon completion of their final year of the Biophysical Environment and Development area of emphasis of the honours International Development degree.
Amount: 1 award of $200

CIDS: Economics and Business Development Award [C0460]
Donor(s): College of Social and Applied Human Science
Qualification(s): Outstanding student, who has achieved academic excellence, a minimum cumulative average of 80%, and service to the international community. The student will have completed at least 15.00 credits and will graduate in the Winter or expect to graduate in the Spring or Fall convocation ceremonies upon completion of their final year of the Economics and Business development area of emphasis of the honours International Development degree.
Amount: 1 award of $200

CIDS: Gender and Development [C0462]
Donor(s): College of Social and Applied Human Science
Qualification(s): Outstanding student, who has achieved academic excellence, a minimum cumulative average of 80%, and service to the international community. The student will have completed at least 15.00 credits and will graduate in the Winter or expect to graduate in the Summer or Fall convocation periods upon completion of his/her final year of the Gender and Development area of emphasis of the honours International Development degree.
Amount: 1 award of $200

CIDS: Latin America Studies Award [C0469]
Donor(s): College of Social and Applied Human Science
Qualification(s): Outstanding student, who has achieved academic excellence, a minimum cumulative average of 80%, and service to the international community. The student will have completed at least 15.00 credits and will graduate in the Winter or expect to graduate in the Summer or Fall convocation ceremonies upon completion of their final year of the Latin American Studies area of emphasis of the honours International Development degree.
Amount: 1 award of $200

CIDS: Political Economy and Administrative Change Award [C0458]
Donor(s): College of Social and Applied Human Science
Qualification(s): Outstanding student, who has achieved academic excellence, a minimum cumulative average of 80%, and service to the international community. The student will have completed at least 15.00 credits and will graduate in the Winter or expect to graduate in the Spring or Fall convocation ceremonies upon completion of their final year of the Political Economy and Administrative Change area of emphasis of the honours International Development degree.
Amount: 1 award of $200
CIDS: Rural Agricultural Development Award [C0457]

Donor(s): College of Social and Applied Human Science

Qualification(s): Outstanding student, who has achieved academic excellence, a minimum cumulative average of 80%, and service to the international community. The student will have completed at least 15.00 credits and will graduate in the Spring or Fall and will have demonstrated leadership and financial need. Recipients must have completed a City of Guelph high school and be Canadian citizens or permanent residents at the time of application. Selection will include equally weighted consideration of academic performance, leadership both on and off campus and financial need.

Amount: 1 award of $200

City of Guelph 175th Anniversary Awards [I0515]
Provided by the Guelph Community Foundation, in celebration of the 175th anniversary of the City of Guelph in 2002, as an investment for future generations. Apply to Student Financial Services, by October 7 of the second year of study, with a letter describing Guelph community and University community volunteer activities and extracurricular activities, a completed Need Assessment Form, and two reference letters not to exceed two pages in length from individuals familiar with the volunteer and/or community service contributions. Award may be held only once.

Donor(s): The Guelph Community Foundation

Qualification(s): Undergraduate degree students with more than 5.0 credits and less than 10.5 credits of full-time study must have maintained a cumulative 70% average in all courses completed (5.0 credits or more) in the first year study and have demonstrated leadership and financial need. Applicants must be graduates of a City of Guelph high school and be Canadian citizens or permanent residents at the time of application. Selection will include equally weighted consideration of academic performance, leadership both on and off campus and financial need.

Amount: 1 award of $1,000

Class of ’67 OAC Centennial Scholarship [C0063]
Established by the Graduating Class of 1967, on the occasion of its 45th anniversary. At the discretion of the OAC Awards Committee students may be selected before graduation. Application not required.

Donor(s): Year ’67 OAC

Qualification(s): Students graduating from the program in a major in an OAC department who have a 70% standing in the final year of study and have demonstrated leadership in the College or University extracurricular activities.

Amount: 4 awards of $1,000

Class of ’90 OAC Leadership Awards [C0006]
Established by the Graduating Class of 1990. Apply to the Office of Student Financial Services by April 1.

Donor(s): Class of OAC ’90

Qualification(s): Students graduating from the program in a major in an OAC department who have a 70% standing in the final year of study and have demonstrated leadership in the College or University extracurricular activities.

Amount: 1 award of $1,000

Class of 1995 Scholarship [I0064]
Established by the graduating class of 1995. Apply to Student Financial Services, by April 1.

Donor(s): Graduating Class of 1995

Qualification(s): Student who has completed 15.0 course credits, is registered in a major in the Ontario Agricultural College, is considered to be the most outstanding student in the class and who, through activity in all branches of college life will have the highest cumulative average above 80% in Sociology and Anthropology. It will be awarded at the Spring Convocation. Application not required.

Amount: 1 award of $1,000

Class of 1970 Scholarship [I0424]
Established by the Silver Anniversary celebrants to commemorate the 25th anniversary of the University Class of 1970. This award rotates among all six colleges on the main campus. The appropriate College Award Committee select the candidate each Fall semester and the candidate is announced each October. Application not required.

Donor(s): Class 1970: 25th Reunion Gift

Qualification(s): Outstanding student in any degree program who has attained at least an 80% average in two consecutive semesters resulting in placement on the Deans’ Honours List.

Amount: 1 award of $1,400

College of Arts Medal [C0383]
The College of Arts Medal is awarded in June to the student graduating from the College of Arts in the Spring or two previous convocations with the highest cumulative average. Application not required.

Donor(s): Office of the Dean of Arts

Qualification(s): Awarded to the graduating student with the highest cumulative average.

Amount: 1 Medal

College of Physical Engineering Science Academic Scholarship [I0073]
Applied not required.

Donor(s): College of Physical and Engineering Science

Qualification(s): Offered in the Winter semester to students who have completed at least 15.0 course credits in a College of Physical and Engineering Science program and have excellent grades but have not received awards recently.

Amount: 2 awards of $250

College of Physical Engineering Science Graduation Prize [C0075]
The winner will be selected in May from all students who have completed the program in the previous twelve months. Application not required. One award of $250 and a commemorative plaque.

Donor(s): College of Physical and Engineering Science

Qualification(s): Student graduating with the highest cumulative average from an honours B.S.C. program in a Physical and Engineering Science area.

Amount: 1 award of $250, 1 Commemorative plaque

College of Social Science Alumni Heritage In-Course Scholarships [I0492]
Established in recognition of the valuable contributions made over many years by College of Social Science alumni and the Alumni Association to the life and vitality of the University. Awarded in the Fall semester. Application not required.

Donor(s): College of Social Science Alumni

Qualification(s): Students registered in the C.S.A.H.S. with the highest cumulative program average of at least 80.0% who have completed between 10.00 and 12.50 course credits and who registered in C.S.A.H.S. in the subsequent Fall Semester. One scholarship will be awarded to a full or part-time student registered in a program offered by each of the following six C.S.A.H.S. administrative and academic units: Economics, Geography, International Development Studies, Political Science, Psychology and Sociology and Anthropology. This scholarship may be held once only.

Amount: 6 awards of $1,000

Collins Barrow Award [I0040]
Offered by Collins Barrow, a national firm of Chartered Accountants. Awarded in the Winter semester. Application not required.

Donor(s): Collins Barrow Chartered Accountants

Qualification(s): Student with the highest grade in course AGEC*3330, Intermediate Accounting, in the Fall semester. In the event of a tie, the scholarship will be given to the student with the highest cumulative average in their program.

Amount: 1 award of $500

Constas Prize [C0079]
This scholarship is offered in memory of Helen Constas, by the Department of Sociology and Anthropology. It will be awarded at the Spring Convocation. Application not required.

Donor(s): The Department of Sociology and Anthropology, CSACS

Qualification(s): Student who is graduating with distinction (or has graduated at the previous Winter or Fall Convocation) in a major in an honours program offered by the Department of Sociology and Anthropology, and who has the highest cumulative average above 80% in Sociology and Anthropology courses.

Amount: 1 award of $100
Dr. Charles Capstick Graduation Prize [C0558]

The recipient will be selected by a committee consisting of the French House Program Director, a representative of East Residences, and the Head of French Studies. The award is presented at the end of the Winter semester by the Belgian Consul General. Application not required.

**Donor(s):** Consul General of Belgium in Toronto

**Qualification(s):** Student resident in French House with good academic standing, who has made the greatest contribution to the program of the residence and to the knowledge of Francophone cultures.

**Amount:** 1 Book Prize

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CSAHS Student Volunteer Scholarship [I0482]

Inspired by Theresa Firestone, FACS '78, and funded by the Harshman Fellowships Society and Pfizer Canada Inc. Students may apply on their own or be recommended by other students, faculty members or administrators from non-profit organizations. Applications are available from the CSAHS Dean's Office. Apply to the CSAHS Dean's Office with a completed application form, a summary letter outlining the student’s volunteer experience and what has been gained or learned from this experience that has enhanced his/her personal growth and/or career goals, and 2 letters of recommendation by April 1. This scholarship will be awarded to the Student Volunteer of the year to help defray the costs associated with volunteerism. One award of $350 (an equal amount will be awarded to the charitable organization of the recipients choice).

**Donor(s):** Harshman Fellowship Society and Pfizer Canada Inc.

**Qualification(s):** Full-time undergraduate students in any degree program offered by the College of Social and Applied Human Sciences and have completed at least 15 course credits with a minimum cumulative 70% average.

**Amount:** 1 award of $350

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D.C. Masters Prize in History [C0180]

Provided by the Department of History in the College of Arts to a student selected annually in the Spring semester from students who have completed their degrees in the previous twelve months. Application not required.

**Donor(s):** Department of History

**Qualification(s):** Student completing the honours program in History (specialized honours, combined honours, or major honours) with the highest cumulative average (minimum of 80%) in History courses at the 3000 and 4000 levels in the preceding academic year.

**Amount:** 1 award of $500

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David F. Boyes Apiculture Scholarship [I0031]

Established in memory of David Boyes a technician in the Apiculture Field Laboratory. Application not required.

**Donor(s):** The Apiculture Club

**Qualification(s):** Student registered in the Fall semester who achieves high academic standing in Introductory Apiculture (ENVB*2210) in the previous year, demonstrates an interest in apiculture and who has participated in extracurricular activities.

**Amount:** 1 award of $150

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David Murray Medal in Arts [C0071]

The recipient is selected by the Awards Committee of the College of Arts. Application not required. One award of a medal and $200.

**Donor(s):** College of Arts

**Qualification(s):** College of Arts nominee for the Winegard Medal.

**Amount:** 1 award of $200, 1 Medal

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Deans’ Scholarships [10323]

Offered by the Board of Governors. Recipients will be selected by each of the College Awards Committees. Winners will be notified in the Fall semester. Application not required.

**Donor(s):** Board of Governors

**Qualification(s):** Students registered in any degree program. The primary academic criteria is placement on the Deans’ Honours List for two consecutive semesters, excluding semesters 7 and 8, in the previous Fall/Winter/Spring sequence.

**Amount:** 150 awards of $1,000

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Dr. James Linders Scholarship [I0559]

Provided by the Department of Computing and Information Science, these scholarships are awarded in the Fall semester to students in a Computing and Information Science degree program that achieved the highest and second highest averages in Year 3 Computing and Information Science core courses. Application not required.

**Donor(s):** Department of Computing and Information Science

**Qualification(s):** Undergraduate students in a Computing and Information Science (CIS) degree program who have completed from 15.0 to 17.5 course credits and have taken the CIS core courses required for Year 3.

**Amount:** 1 award of $500, 1 award of $300

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Dr. Mary McLeish Scholarship [I0560]

Provided by the Department of Computing and Information Science, these scholarships are awarded in the Fall semester to students in a Computing and Information Science degree program that achieved the highest and second highest averages in Year 1 Computing and Information Science core courses. Application not required.

**Donor(s):** Department of Computing and Information Science

**Qualification(s):** Undergraduate students in a Computing and Information Science (CIS) degree program who have completed from 5.0 to 7.5 course credits and have taken the CIS core courses required for Year 1.

**Amount:** 1 award of $500, 1 award of $300

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Dr. Ted Swart Scholarship [I0561]

Provided by the Department of Computing and Information Science, these scholarships are awarded in the Fall semester to students in a Computing and Information Science degree program that achieved the highest and second highest averages in Year 2 Computing and Information Science core courses. Application not required.

**Donor(s):** Department of Computing and Information Science

**Qualification(s):** Undergraduate students in a Computing and Information Science (CIS) degree program who have completed from 10.0 to 12.5 course credits and have taken the CIS core courses required for Year 2.

**Amount:** 1 award of $500, 1 award of $300

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E.A. (Norma) Cebotarev Prize [C0464]

Established by the Department of Sociology and Anthropology to honour Professor Emeritus E.A. (Nora) Cebotarev's outstanding contribution to graduate programs in Sociology and Anthropology and to the life of the department and the larger community. Presented in the Fall semester. Application not required.

**Donor(s):** Department of Sociology and Anthropology

**Qualification(s):** Graduating student with an honours specialization from the Department of Sociology and Anthropology and to the life of the department and the larger community.

**Amount:** 1 Book prize

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E.B. MacNaughton Convocation Prize [C0171]

Established by the College of Physical and Engineering Science to honour Earl B. MacNaughton, former head of the Department of Physics and founding Dean of the College of Physical Science. Application not required. One award of a plaque-mounted medal and $250.

**Donor(s):** The College of Physical and Engineering Science

**Qualification(s):** The College of Physical and Engineering Science nominee for the Winegard Medal.

**Amount:** 1 award of $250, 1 Plaque-mounted medal

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Edmund C. Bovey Scholarship in Philosophy [I0113]

Donated by Sandra and Joseph Rotman. The award will be made in 2 installments of $500 payable after registration in semesters 7 and 8. Application not required.

**Donor(s):** The Joseph Louis Rotman Charitable Foundation

**Qualification(s):** Awarded to the student with the highest cumulative average in Philosophy courses who has completed 6 semesters in the major honours, combined honours, or specialized honors program in Philosophy.

**Amount:** 1 award of $1,000

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Ellen Nilsen Memorial Award [I0047]

Established by the Friends of Ellen Nilsen and the College of Arts. The award is presented at the end of the Winter semester by the Belgian Consul General. Application not required.

**Donor(s):** The Friends of Ellen Nilsen

**Qualification(s):** Academically outstanding woman from a developing country who is registered at the University of Guelph in an undergraduate or graduate program and who has demonstrated a commitment to social change.

**Amount:** 1 award of $1,500

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IX. Scholarships and Other Awards, Bachelor of Arts

**Essay Prize in Music [I0357]**

- Essays should be submitted to the Director of the School of Fine Art and Music.
- **Donor(s):** The Department of Music
- **Qualification(s):** Student with at least Honours standing in the Honours Music Major or Minor program for the best research paper submitted in a 3000 or 4000 level music course (excluding papers written for MUSC*4401/2).
- **Amount:** 1 award of $100

**Evelyn Matheson Pepper Memorial Scholarship [I0538]**

- The daughters and grandchildren of Evelyn Matheson Pepper, a Mac ‘33 graduate, provide this scholarship. Application not required.
- **Donor(s):** Ms. Barbara Stuart and Ms. Susan Pepper
- **Qualification(s):** Student who achieves the highest grade in the course FRHD*3200, Practicum in Child, Youth and Family I, offered by the department of FRAN.
- **Amount:** 1 award of $1,000

F.A. Dahms Geography Alumni Scholarship [I0500]

- Established in honour of the retirement of Dr. Fred Dahms, one of the founding members and former Chair (1968-74) of the Department of Geography, by alumni, colleagues and friends. Application not required.
- **Donor(s):** Alumni, colleagues and friends of Dr. Fred Dahms, Department of Geography
- **Qualification(s):** Full-time or part-time undergraduate student who has completed 15.00 credits in the major honours program in the Department of Geography.
- **Amount:** 1 award of $500

**Faculty Prize in Classics [I0098]**

- The prizes are awarded to students selected by members of the Classics Section of the School of Languages and Literatures and by the Director of the School. Application not required.
- **Donor(s):** Dr. J.M. Bell and Dr. V.J. Mathews
- **Qualification(s):** Students registered in any Classics program are eligible and the awards are based on aggregate performance in one or more courses totaling 1 credit at the 2000 level or above from Classical Studies, Greek or Latin.
- **Amount:** 2 awards of $100

**Frederick Vaughan Political Science Scholarship [I0513]**

- Established by Bernard Cummins, a ‘92 and ‘93 graduate of the College of Social Science, along with alumni and the friends and family of Frederick Vaughan, in honour of Professor Frederick Vaughan. Apply by letter to the Chair of the Department of Political Science by April 1st. The letter should include a brief description of the student's activities, interests, and/or involvement with Canadian politics, Constitution, and/or court system as well as a comprehensive listing of his/her extracurricular activities.
- **Donor(s):** Mr. Bernard Cummins, family and friends
- **Qualification(s):** Undergraduate student majoring in Political Science or Criminal Justice and Public Policy, who has competed between 12.5 and 15.0 credits with a minimum 77% cumulative average, with a particular emphasis on courses in the area of Canadian politics. The award winner will be selected on the basis of academic achievement and leadership ability as demonstrated through extracurricular involvement. Preference will be given to a student who has shown a particular interest in the Canadian constitution and the courts.
- **Amount:** 1 award of $500

**French Consul Prize [I0105]**

- Selection by Faculty in French Studies (School of Languages and Literatures).
- **Donor(s):** French Consul
- **Qualification(s):** Offered to a student for work in oral French.
- **Amount:** 1 Book prize

**Friends of Music Book Prize [I0218]**

- Established by the Friends of Music of the University of Guelph. Application not required.
- **Donor(s):** Friends of Music, Chair, Department of Music
- **Qualification(s):** Student who, in a given year, has completed at least 15.00 credits toward the honours B.A. with a major in Music and has the highest cumulative average in Music courses.
- **Amount:** 1 (or more) Book prize(s)
<table>
<thead>
<tr>
<th>Scholarship Name</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gloria Guthrie Memorial Music Scholarship [C0346]</strong></td>
<td>Application not required.</td>
</tr>
<tr>
<td><strong>Donor(s):</strong></td>
<td>Estate of Professor James R. Guthrie</td>
</tr>
<tr>
<td><strong>Qualification(s):</strong></td>
<td>Student graduating in honours Music who has obtained the highest average above 80% in Music courses.</td>
</tr>
<tr>
<td><strong>Amount:</strong></td>
<td>1 award of $500</td>
</tr>
<tr>
<td><strong>Gold Medal in English [C0112]</strong></td>
<td>This gold medal is offered by the faculty of the English Section of the School of Literatures and Performance Studies in English. Application not required.</td>
</tr>
<tr>
<td><strong>Donor(s):</strong></td>
<td>Faculty of the Department of English</td>
</tr>
<tr>
<td><strong>Qualification(s):</strong></td>
<td>Graduating student who has achieved the highest standing in honours work in English (providing that the student's standing is at 80%) and completed at least 15.0 course credits of the program at the University of Guelph.</td>
</tr>
<tr>
<td><strong>Amount:</strong></td>
<td>1 Gold medal</td>
</tr>
<tr>
<td><strong>Gonder Family Centre for Students with Disabilities Volunteer Award [I0563]</strong></td>
<td>In recognition of the many students who volunteer their time and talents to assist their colleagues registered with the Centre for Students with Disabilities (CSD) and to encourage others to do so, Dr. John and Mrs. Katherine Gonder provide this award to a student who has volunteered in the CSD. The award will be made on the basis of the number of volunteer activities undertaken by the student at the CSD, one letter of reference, and a personal statement outlining time commitment and types of volunteer activities undertaken as well as an indication of how this was a valuable and rewarding volunteer experience. Apply by January 15th to the CSD (c/o Advisor to Students with Disabilities) by submitting above documentation.</td>
</tr>
<tr>
<td><strong>Donor(s):</strong></td>
<td>Dr. John and Mrs. Katherine Gonder</td>
</tr>
<tr>
<td><strong>Qualification(s):</strong></td>
<td>All students registered in the College of Social and Applied Human Science (CSAHS) that have completed between 10.0 and 15.0 course credits with a minimum 70% cumulative average, and have been involved as volunteers with the CSD.</td>
</tr>
<tr>
<td><strong>Amount:</strong></td>
<td>1 award of $900</td>
</tr>
<tr>
<td><strong>Governor General's Medal [C0044]</strong></td>
<td>Established by the Office of the Governor General of Canada. Application not required.</td>
</tr>
<tr>
<td><strong>Donor(s):</strong></td>
<td>The Chancellery</td>
</tr>
<tr>
<td><strong>Qualification(s):</strong></td>
<td>Restricted to those undergraduate students in any degree program who are graduating in June, or who have graduated in the previous two convocations, with the highest cumulative average.</td>
</tr>
<tr>
<td><strong>Amount:</strong></td>
<td>1 Silver medal</td>
</tr>
<tr>
<td><strong>Guelph Creative Arts Association, Gordon Couling Scholarship [I0117]</strong></td>
<td>Application for this scholarship is to be made by submitting a portfolio of studio work through the office of the School of Fine Art and Music no later than the final day of classes of the Winter semester.</td>
</tr>
<tr>
<td><strong>Donor(s):</strong></td>
<td>Guelph Creative Arts Association</td>
</tr>
<tr>
<td><strong>Qualification(s):</strong></td>
<td>Studio Arts major who has completed, or is completing, 12.50 credits at the time of application, who is proceeding towards an honour's degree in Studio Arts, and who has a cumulative average of at least 70% in all previous course attempts in Art History and Studio Arts.</td>
</tr>
<tr>
<td><strong>Amount:</strong></td>
<td>1 award of $200</td>
</tr>
<tr>
<td><strong>Guelph Varsity Athletic Accessibility Scholarship [I0518]</strong></td>
<td>Established by alumni and friends of the University of Guelph. Apply to Student Financial Services by October 7 providing a covering letter describing on- and off-campus academic and extra-curricular activities and a completed Need Assessment Form. Awarded at the annual Athletics Banquet.</td>
</tr>
<tr>
<td><strong>Donor(s):</strong></td>
<td>Alumni and friends of the University of Guelph</td>
</tr>
<tr>
<td><strong>Qualification(s):</strong></td>
<td>Undergraduate degree or diploma students, with at least 5.0 credits and less than 20.5 credits, who are members of a varsity athletic team and who have demonstrated financial need, are eligible to apply. Students must have maintained at least a 70% cumulative average in all courses completed in the previous year of study (minimum 3.0 credits). Selection will be based upon equally weighted consideration of academic performance and evidence of leadership qualities. Students may receive the award up to four times.</td>
</tr>
<tr>
<td><strong>Amount:</strong></td>
<td>2 awards of $1,250</td>
</tr>
<tr>
<td><strong>Highdale Farms Scholarship [I0348]</strong></td>
<td>Apply to Student Financial Services, by April 1.</td>
</tr>
<tr>
<td><strong>Donor(s):</strong></td>
<td>Arthur Spoerri</td>
</tr>
<tr>
<td><strong>Qualification(s):</strong></td>
<td>Two awards are available for students in semesters 3 through 6 with at least a 75% cumulative average and whose primary area of study is related to the natural sciences. The first award is based on academic proficiency. The second award is based on academic proficiency and demonstrated leadership with preference given to students from Ottawa-Carleton, Dundas-Glengarry-Stormont, Grenville, Lanark, Prescott-Russell and Renfrew counties.</td>
</tr>
<tr>
<td><strong>Amount:</strong></td>
<td>2 awards of $2,000</td>
</tr>
<tr>
<td><strong>Italian Consulate Prize in Italian Studies [I0143]</strong></td>
<td>Application not required.</td>
</tr>
<tr>
<td><strong>Donor(s):</strong></td>
<td>Consulate General of the Republic of Italy</td>
</tr>
<tr>
<td><strong>Qualification(s):</strong></td>
<td>Student intending to continue the study of Italian presently enrolled in ITAL<em>2070 or ITAL</em>1070 who obtains the highest standing in the course.</td>
</tr>
<tr>
<td><strong>Amount:</strong></td>
<td>1 Book prize</td>
</tr>
<tr>
<td><strong>J. Percy Smith Drama Prize [C0261]</strong></td>
<td>Application not required.</td>
</tr>
<tr>
<td><strong>Donor(s):</strong></td>
<td>Dr. J. Percy Smith</td>
</tr>
<tr>
<td><strong>Qualification(s):</strong></td>
<td>Graduating honours student in Drama with high academic standing in Drama courses, who has also made a worthy contribution to drama activities within the School of English and Theatre Studies.</td>
</tr>
<tr>
<td><strong>Amount:</strong></td>
<td>1 award of $200</td>
</tr>
<tr>
<td><strong>J.M. Bell Classics Scholarship [I0204]</strong></td>
<td>Established in memory of Dr. John M. Bell, a distinguished teacher of classics and Chair of the Department of Languages and Literatures. Application not required.</td>
</tr>
<tr>
<td><strong>Donor(s):</strong></td>
<td>J.M. Bell Memorial Fund</td>
</tr>
<tr>
<td><strong>Qualification(s):</strong></td>
<td>Student continuing in an honours program in Classics with the highest average (80% or above) in 4.00 credits from Classical Studies, Greek, or Latin courses beyond the 1000 level. The award may only be held once.</td>
</tr>
<tr>
<td><strong>Amount:</strong></td>
<td>1 award of $500</td>
</tr>
<tr>
<td><strong>J.W. Skinner Honours Scholarship in Social Science [I0259]</strong></td>
<td>This award is not tenable with the College of Social and Applied Human Sciences or B.A. program Senate Awards. Application not required.</td>
</tr>
<tr>
<td><strong>Donor(s):</strong></td>
<td>Faculty, staff, alumni and students of the former College of Social Science</td>
</tr>
<tr>
<td><strong>Qualification(s):</strong></td>
<td>Student of high academic standing who has completed the 6th semester and is proceeding in a specialized or major honours program in the Departments of Economics, Geography, Political Science, Psychology, Sociology and Anthropology or a social science interdisciplinary program.</td>
</tr>
<tr>
<td><strong>Amount:</strong></td>
<td>1 award of $250</td>
</tr>
<tr>
<td><strong>J.W. Skinner Medal in Social Science [C0260]</strong></td>
<td>Application not required.</td>
</tr>
<tr>
<td><strong>Donor(s):</strong></td>
<td>Faculty, staff, alumni and students of the former College of Social Science</td>
</tr>
<tr>
<td><strong>Qualification(s):</strong></td>
<td>Presented to the Winegard Medal nominee selected from candidates from the Departments of Economics, Geography, Political Science, Psychology, Sociology and Anthropology, or a social science interdisciplinary program.</td>
</tr>
<tr>
<td><strong>Amount:</strong></td>
<td>1 Medal</td>
</tr>
<tr>
<td><strong>Jack Madden Medal in Economic History [C0173]</strong></td>
<td>The Department of Economics with the assistance of Dr. Warren Jestin, a B.A. and M.A. graduate and member of the University’s Board of Governors from 1997 to 2003, offers this award in honour of Professor Jack Madden, founding member of the former College of Social Science and the Department of Economics. Application not required. One award of a medal and $200.</td>
</tr>
<tr>
<td><strong>Donor(s):</strong></td>
<td>Department of Economics with the assistance of Dr. Warren Jestin</td>
</tr>
<tr>
<td><strong>Qualification(s):</strong></td>
<td>Student in honours Economics who has completed at least one Economic History course at any time throughout their program with the highest grade in the course and are graduating in the Winter semester, or have graduated in the previous Fall or Summer.</td>
</tr>
<tr>
<td><strong>Amount:</strong></td>
<td>1 award of $200, 1 Medal</td>
</tr>
</tbody>
</table>
James L. Mottin Award for Academic and Extracurricular Excellence [C0344]
Provided by the Department of Psychology to recognize its nominee for the Winegard Medal. Apply to the Department of Psychology Undergraduate Academic Counsellor by January 15th, including a list of extracurricular activities.

Donor(s): The Department of Psychology
Qualification(s): Student must be enrolled in the B.A. Honours program or the honors specialization in the B.SC. program majoring in Psychology. The recipient will be selected on the basis of high academic achievement and extracurricular involvement.
Amount: 1 award of $200

Jean Carter Memorial Gerontology Scholarship [I0488]
Established by the family and friends of Jean Carter, a Mac’38 graduate who was actively involved in the life of the College and the University. Apply by letter to the CSAHS Undergraduate Awards Committee, Dean’s Office by April 1st, including a statement that outlines the student’s experience working with the elderly in a volunteer capacity as well as extracurricular involvement the student may have and two letters of reference, one of which should be from someone who can speak to the student’s volunteer experiences with the elderly, while the other should comment on the extracurricular activities of the student.

Donor(s): Mr. Robert N. Carter and Family
Qualification(s): Undergraduate student in the CSAHS who has completed at least 10.0 credits with a minimum 70% cumulative average and has made a significant contribution to the care of the elderly. Preference will be given to students in the B.A.SC. program majoring in Gerontology.
Amount: 1 award of $1,000

John F. Melby Honours Thesis Prize [C0189]
Offered by members of the Department of Political Studies, colleagues and friends of Professor Melby. Application not required.

Donor(s): Members of the Department of Political Science, colleagues and friends
Qualification(s): Honours student in Political Studies, based on the honours thesis. Must have successfully completed POLS*4980.
Amount: 1 award of $500

John Kenneth Galbraith Scholarship in Economics [I0108]
Apply in writing to the Chair, Department of Economics by March 1.

Donor(s): The Board of Governors, University of Guelph
Qualification(s): Student who has completed, or is about to complete, the 5th semester level in the B.A. program, and who has declared intent to proceed in an honors program in Economics. The scholarship will be awarded on the basis of high academic standing, particularly in courses in Economics, Agricultural Economics, Mathematics and Statistics and will be presented after the recipient has registered for the 7th semester level of an honors program in Economics.
Amount: 1 award of $600

Jean Deere Foundation of Canada Scholarship [I0516]
Established through the generosity of The John Deere Foundation of Canada to recognize academic excellence. Application not required.

Donor(s): The John Deere Foundation of Canada
Qualification(s): Student registered in the B.SC.(Agr.), B.SC.(Agr.) Agricultural Economics, B.SC.(Agr.) Agromony, B.A. Agricultural Economics, or B.Comm. Agricultural Business program who has completed a minimum of 15.0 credits. Selection will be based on the student with the highest cumulative average. A student may be receive this award once only.
Amount: 1 award of $2,000

John F. Melby Honours Thesis Prize [C0189]
Offered by members of the Department of Political Studies, colleagues and friends of Professor Melby. Application not required.

Donor(s): Members of the Department of Political Science, colleagues and friends
Qualification(s): Honours student in Political Studies, based on the honours thesis. Must have successfully completed POLS*4980.
Amount: 1 award of $500

John Burt Award in Women’s Studies [I0502]
Established by family, friends and colleagues of the late Dr. Joanna Boehnert, a professor in the Department of Psychology (1968-2001) who established the Guelph Women’s Studies program in 1980 and served as the program’s coordinator for 14 years. Application not required.

Donor(s): Family, friends and colleagues of the late Dr. Joanna Boehnert
Qualification(s): Graduating honours student majoring in Women’s Studies. The award will be presented to the student who has attained the highest cumulative specialization average.
Amount: 1 award of $1,000

John A. Archibald Memorial Scholarship [I0014]
Awarded in memory of John A. Archibald, former Director of the Horticultural Research Institute of Ontario. Apply to Student Financial Services by April 1.

Donor(s): The friends and associates of the late John A. Archibald
Qualification(s): Outstanding student with an interest in courses in the Department of Land Resource Science who has completed semester 6. The recipient will be chosen on the basis both of high academic standing and participation in extracurricular activities.
Amount: 1 award of $1,200

Kenneth W. Hammond Award [I0045]
The evaluation of the student will be based on the final essay in the "Environmental Perspectives and Human Choice: 5000 Days" course. The selection committee will be comprised of 4 persons: the donor, the Director of the Arboretum, the Dean of Physical and Engineering Science and the Dean of Biological Science. Application not required.

Donor(s): Kenneth W. Hammond
Qualification(s): Student who has best demonstrated an understanding of the world’s resource situation and its proper use by humankind.
Amount: 1 award of $1,000

Kip Hunter Prize [I0139]
For the best essay, written by an undergraduate in a philosophy course. The essay may be either a required assignment for a course (in which case either the student or the instructor may submit it) or it may be specially prepared for the competition. Submission of essays is to the Chair, Department of Philosophy, by the end of the 12th week of the Winter semester.

Donor(s): Faculty, students and staff of the Philosophy Department
Qualification(s): Any undergraduate who has registered for a philosophy course during the academic year in which the prize is awarded.
Amount: 1 Book prize

Lange and Prokipcak Chemistry Scholarship [I0528]
This scholarship was established by Professor Gordon L. Lange, Professor Joe M. Prokipcak, friends and colleagues. Professors Gordon L. Lange and Joe M. Prokipcak were valued members of the chemistry Faculty who retired in 2001. Their excellence in teaching was recognized within the university and nationwide, winning them a total of eleven teaching awards. Application not required.

Donor(s): Professor Gordon L. Lange, Professor Joe M. Prokipcak and friends and colleagues
Qualification(s): Student in CPES with the highest average grade in CHEM*1040,1050 and 2700 who has completed a minimum of 10.0 credits up to a maximum of 14.75 credits.
Amount: 1 award of $1,000
Le Prix Leopold Senghor [I0254]

Donated by the Honorary Consul for Senegal is awarded in even-numbered years. Application not required.

**Donor(s):** [Department of Languages]

**Qualification(s):** Student with good academic standing who has achieved excellence in the study of francophone African literatures, and in particular the literature of Senegal. The recipient will be selected on the basis of performance in the course FREN*3290 with recommendation from the Director of the School of Languages and Literatures.

**Amount:** 1 Book prize

Leibniz/Newton Scholarship [I0156]


**Donor(s):** The Department of Mathematics and Statistics

**Qualification(s):** A second year student majoring in mathematics or statistics (i.e. one who has completed a minimum of 5 credits up to a maximum of 9.75 credits) who has a cumulative average of at least 80% and the highest grades over 80% in MATH*1200 and MATH*1210. A student may be considered for this award only once.

**Amount:** 1 award of $400

Leonard Conolly Exchange Student Scholarship [I0446]

Established by students, faculty, staff and friends to honour Prof. Leonard Conolly, professor of drama, Chair of the Department of Drama, 1981-88, and Associate Vice-President Academic, 1988-1992. Apply to the Centre for International Programs by April 5, for visiting during the subsequent Fall or Winter semesters.

**Donor(s):** Students, staff, faculty and friends of Dr. Leonard Connolly

**Qualification(s):** Full-time visiting exchange undergraduate or graduate student, registered at Guelph for at least one semester, from any country in the South (a list of eligible countries and exchange partner universities is available in the Centre for International Programs). Selection, by the Centre for International Programs, will be based on assessment of (a) a one-page submission describing the significance of the student visiting Guelph to the program of study at the partner exchange university (b) two faculty references of one-page each, and (c) consistent high performance in the course work completed, as documented by a transcript of program grades to date, submitted by the home university.

**Amount:** 1 award of $1,000

Marlene Pike Memorial Award [I0192]

Provided by the family and friends of Marlene Pike. Application not required.

**Donor(s):** The family and friends of the late Marlene Pike

**Qualification(s):** Student majoring in Studio Art who has completed 12.50 credits, including SART*3300 Sculpture II and who is judged to have made an outstanding contribution in sculpture classes as manifested in the quality of work produced as well as in the effort expended and promise shown.

**Amount:** 1 award of $400

Mathematics Graduation Prize [C0182]

Awarded at Summer Convocation. Application not required. One award of $250 and a commemorative plaque.

**Donor(s):** Faculty members, who will be anonymous, through the College of Physical Science and Engineering Expendable Scholarship Fund

**Qualification(s):** The graduating student who has majored in mathematics and who in the past year has graduated from an honours degree program with the highest cumulative average over 80%.

**Amount:** 1 award of $250

McLean Scholarships in English [I0188]

These scholarships are offered in memory of Prof. Ernest Cyrus McLean, a member of OAC from 1921 to 1960 and Chair of the Department of English from 1954 to 1960. Application not required.

**Donor(s):** Anonymous

**Qualification(s):** Students in a B.A. program in English who have completed semester 4 in the previous Spring, Fall or Winter semesters with a high academic standing. A cumulative 80% average in English courses is considered the minimum requirement.

**Amount:** 2 awards of $1,000

Le Prix Leopold Senghor [I0254]

Donated by the Honorary Consul for Senegal is awarded in even-numbered years. Application not required.

**Donor(s):** [Department of Languages]

**Qualification(s):** Student with good academic standing who has achieved excellence in the study of francophone African literatures, and in particular the literature of Senegal. The recipient will be selected on the basis of performance in the course FREN*3290 with recommendation from the Director of the School of Languages and Literatures.

**Amount:** 1 Book prize

Leibniz/Newton Scholarship [I0156]


**Donor(s):** The Department of Mathematics and Statistics

**Qualification(s):** A second year student majoring in mathematics or statistics (i.e. one who has completed a minimum of 5 credits up to a maximum of 9.75 credits) who has a cumulative average of at least 80% and the highest grades over 80% in MATH*1200 and MATH*1210. A student may be considered for this award only once.

**Amount:** 1 award of $400

Leonard Conolly Exchange Student Scholarship [I0446]

Established by students, faculty, staff and friends to honour Prof. Leonard Conolly, professor of drama, Chair of the Department of Drama, 1981-88, and Associate Vice-President Academic, 1988-1992. Apply to the Centre for International Programs by April 5, for visiting during the subsequent Fall or Winter semesters.

**Donor(s):** Students, staff, faculty and friends of Dr. Leonard Connolly

**Qualification(s):** Full-time visiting exchange undergraduate or graduate student, registered at Guelph for at least one semester, from any country in the South (a list of eligible countries and exchange partner universities is available in the Centre for International Programs). Selection, by the Centre for International Programs, will be based on assessment of (a) a one-page submission describing the significance of the student visiting Guelph to the program of study at the partner exchange university (b) two faculty references of one-page each, and (c) consistent high performance in the course work completed, as documented by a transcript of program grades to date, submitted by the home university.

**Amount:** 1 award of $1,000

Marlene Pike Memorial Award [I0192]

Provided by the family and friends of Marlene Pike. Application not required.

**Donor(s):** The family and friends of the late Marlene Pike

**Qualification(s):** Student majoring in Studio Art who has completed 12.50 credits, including SART*3300 Sculpture II and who is judged to have made an outstanding contribution in sculpture classes as manifested in the quality of work produced as well as in the effort expended and promise shown.

**Amount:** 1 award of $400

Mathematics Graduation Prize [C0182]

Awarded at Summer Convocation. Application not required. One award of $250 and a commemorative plaque.

**Donor(s):** Faculty members, who will be anonymous, through the College of Physical Science and Engineering Expendable Scholarship Fund

**Qualification(s):** The graduating student who has majored in mathematics and who in the past year has graduated from an honours degree program with the highest cumulative average over 80%.

**Amount:** 1 award of $250

McLean Scholarships in English [I0188]

These scholarships are offered in memory of Prof. Ernest Cyrus McLean, a member of OAC from 1921 to 1960 and Chair of the Department of English from 1954 to 1960. Application not required.

**Donor(s):** Anonymous

**Qualification(s):** Students in a B.A. program in English who have completed semester 4 in the previous Spring, Fall or Winter semesters with a high academic standing. A cumulative 80% average in English courses is considered the minimum requirement.

**Amount:** 2 awards of $1,000

Michael J.F. Tompkins Scholarship [I0341]

Offered by his family in memory of Michael Tompkins, Governor General's Medallist 1990. Preference will be given to students who do not hold other Senate awards. The scholarship may be held once only. It is payable after registration in the student's subsequent semester. Essays must be submitted by January 15th to the honours English advisor, together with an application form which is available from the honours English advisor.

**Donor(s):** [Donnamarie Tompkins-Grace]

**Qualification(s):** Student continuing in the honours English degree program at the University of Guelph who submits the best essay written in a 3000 or a 4000 level English Literature course.

**Amount:** 1 award of $1,000

Michael Scotcher Scholarship [I0253]

Application is by submission of a portfolio of studio work to the Office of the Director of the School of Fine Art and Music by November 1.

**Donor(s):** [The Michael Scotcher Scholarship Committee]

**Qualification(s):** Fine Art student who is in the intermediate stage of his/her program, i.e. semesters 3 to 6. Applicants must have completed at least 2.50 credits in studio at Guelph, with a 70% average in those courses by the end of the prior Winter semester.

**Amount:** 1 award of $600

Monroe Landon Memorial Scholarship [C0153]

This scholarship is offered by the family and friends of the late Professor and Mrs. R. C. Moffatt. This scholarship will be awarded in the Fall semester. Application not required.

**Donor(s):** [The friends of Monroe Landon]

**Qualification(s):** Student who has completed 10.0 course credits in one of the previous Fall, Winter or Spring semesters and is enrolled in Year 3 or higher of an honours program in Mathematics, Statistics of Physics. The recipient will be selected on the basis of a high cumulative average (minimum 80% average required) on the work in Mathematics, Statistics and Physics from the first 2 years.

**Amount:** 1 award of $200

Mordechai Rozanski History Scholarship [I0545]

Established by the Jean Rich Foundation in recognition of Dr. Rozanski's tenure as president of the University of Guelph from 1993 to 2003. Application not required.

**Donor(s):** Jean Rich Foundation

**Qualification(s):** Student in Year 3 (who has completed a minimum of 10.0 credits up to a maximum of 14.75 credits) of the Honours History program with the highest cumulative average.

**Amount:** 1 award of $5,000

Murdo MacKinnon Scholarship [I0169]

One or more scholarships given to students completing semesters 5, 6 or 7 during the Winter semester will be considered by the College Awards Committee. Application not required.

**Donor(s):** [The Murdo MacKinnon Scholarship Fund]

**Qualification(s):** Student(s) registered in an honours major program in the College of Arts in Music, Drama, Art History, Studio Arts, English, History, Philosophy, Languages and Literatures or French Studies with the highest cumulative average in his/her honour subject(s). Preference will be given to students who have done all of their work at the University of Guelph.

**Amount:** 1 award of $500

Nancy Stoten Honours Prize in French [I0411]

Provided by the parents, family and friends of Nancy Stoten, a former student in French Studies. Application not required.

**Donor(s):** The family and friends of Nancy Stoten

**Qualification(s):** Students enrolled in the French Studies who has achieved the highest average in the five best courses in French at the 3000 and 4000 level.

**Amount:** 1 award of $1,000
Nancy Stoten Memorial Scholarship [I0106]
Provided by the parents, family and friends of Nancy Stoten, a former student in French Studies. Application not required.
Donor(s): Mr. Michael and Mrs. Jean Stoten
Qualification(s): Students enrolled in the French Studies with fewer than 15.50 credits who have completed FREN*1200, FREN*2020, FREN*2060 and FREN*2520. The student who has achieved the highest average calculated on the grades in the above courses will receive the award.
Amount: 1 award of $1,000

Norma Bowen Memorial Scholarship in Psychology [I0154]
Apply in writing by July 1 to the Chair of the Psychology Department’s Undergraduate Affairs and Curriculum Committee (UACC).
Donor(s): The Bowen family, friends and faculty colleagues
Qualification(s): Presented to a student with an excellent academic record in the first 5 semesters of a Psychology program. Preference will be given to “mature” students.
Amount: 1 award of $600

O.A.C. Students’ Federation Medal [C0217]
Application not required.
Donor(s): OAC
Qualification(s): Graduating student in an undergraduate degree program in a major in an OAC department who has been an outstanding leader in student activities at the College level throughout his or her University career.
Amount: 1 Medal

OAC ’55 Scholarships [I0064]
Provided by the class of OAC ’55. Apply to Student Financial Services by April 1.
Donor(s): OAC ’55
Qualification(s): Students who are registered in any OAC degree program or students enrolled in the B.SC.(Eng.) program and have completed semester 4. Recipients will have made an outstanding contribution to College life through academic proficiency and participation in extracurricular activities and can be considered to have done the most for the College, for fellow students and in their personal development. Recipients must have a 70% minimum cumulative average.
Amount: 1 award of $2,000

OAC Centennial Graduate Fellowships [C0209]
The Ontario Agricultural College celebrated its 100th Anniversary in 1974. Many organizations and companies associated with the agricultural industry provided funds in conjunction with the Centennial activities. Funds have been established in perpetuity as a permanent remembrance of the Centennial of the College. Apply to Student Financial Services by April 1.
Donor(s): Dean, OAC
Qualification(s): Students graduating from a degree program administered by the Ontario Agricultural College and who plan to pursue graduate studies in any department or school of the Ontario Agricultural College in the year of baccalaureate graduation are eligible for these fellowships. The fellowship will be based on academic achievement in semesters 7 and 8, as well as participation in extracurricular activities throughout the student’s university career.
Amount: 2 awards of $2,200

Oxford County Pork Producers Scholarship (Degree) [I0531]
The Oxford County Pork Producers have made available this scholarship. Apply to OAC Awards Committee by April 1 with a letter of up to two pages in length including information about leadership, community involvement and pork industry involvement.
Donor(s): Oxford County Pork Producers
Qualification(s): Any student who has completed a minimum of 5.0 credits in an OAC degree program with a minimum cumulative average of 70%, pork production background or interest in pork production/industry, and demonstrated leadership and/or community involvement. Preference will be given to students from Oxford County or surrounding area.
Amount: 1 award of $1,000

Oxford University Press Canada Drama Prize [I0177]
Application not required.
Donor(s): Oxford University Press Canada
Qualification(s): Student registered in the Drama major or minor who completes semester level 4 in the Winter, Spring, or Fall with the highest cumulative average in Drama courses.
Amount: 1 Book prize

Peter Mann Award for Embryology [I2032]
Provided by colleagues and friends of Dr. Mann, a scholar and teacher of Embryology from 1954-1987. Application not required.
Donor(s): Colleagues and friends of Dr. Mann
Qualification(s): Student from any degree program completing the course BIOM*3040 Biomedical Embryology, with the highest academic standing.
Amount: 1 award of $1,000

Printmaking Prize [I0239]
Application not required.
Donor(s): Printmaking students and faculty of the Department of Fine Art
Qualification(s): Student judged to have made the outstanding academic contribution to the practice of printmaking during that semester. All students currently enrolled in a printmaking course at any level are eligible, provided that they are considered by the Printmaking Selection Committee of the School of Fine Art and Music to have fulfilled all workshop responsibilities.
Amount: 1 award of $100

Psychology Core and Methodology Scholarship [I0345]
Provided by the Department of Psychology. Application not required.
Donor(s): The Department of Psychology
Qualification(s): Student enrolled in the B.A. honours program or the honours specialization in the B.SC. program majoring in Psychology who has completed PSYC*2010 and PSYC*2360 and the Psychology core course requirements.
Amount: 1 award of $200

Psychology Honours Thesis Prize [I0343]
Provided by the Department of Psychology. Application not required.
Donor(s): The Department of Psychology
Qualification(s): Student enrolled in the B.A. honours program or the honours specialization in the B.SC. program majoring in Psychology who has completed PSYC*4870 and PSYC*4880 and who submits the best Psychology honours thesis in the previous Fall, Summer or Winter semesters. The winning thesis is selected from nominations by thesis supervisors.
Amount: 1 award of $200

Psychology Senior Honours Prize [I0342]
Provided by the Department of Psychology. Application not required.
Donor(s): Department of Psychology
Qualification(s): Student enrolled in the BA. Honours program or the honours specialization in the B.SC. program majoring in Psychology, having the highest cumulative specialization average after completing at least 15.0 course credits, including those prerequisite courses associated with the honours thesis PSYC*3370. Award may be held once only.
Amount: 1 award of $200

R.A. Fisher Statistics Scholarship [I0102]
Established to honour one of the founding fathers of statistics. Awarded in the Fall semester. Not tenable with the Year 3 Statistics Scholarship. Application not required.
Donor(s): Faculty, students and other affiliates of the Department of Mathematics and Statistics
Qualification(s): Student majoring in statistics in year three (i.e. one who has completed a minimum of 10.00 credits up to a maximum of 14.75 credits) who has a cumulative average of at least 80% and the highest grades over 80% in STAT*2040 and STAT*2050 or equivalent. A student may be considered for this award once only.
Amount: 1 award of $500

R.C. Moffatt Memorial Scholarship in Mathematics or Statistics [I0536]
This scholarship was established by the Estate of Professor R.C. Moffatt. A student may be considered for this award in both third and fourth years. This award is not tenable with any other Department of Mathematics or Statistics scholarships. Application not required.
Donor(s): Estate of Professor R.C. Moffatt
Qualification(s): Student in year 3 or 4 (i.e., who has completed a minimum of 10.0 credits up to a maximum of 19.75 credits) enrolled as a statistics or mathematics major. The recipient will be selected on the basis of a high cumulative average over 80%.
Amount: 1 award of $900
Ralph and Edith Kidd Memorial Scholarship in Music [I0463]

Established by the Friends of Music of the University of Guelph in honour of Ralph Kidd, first chairman of the Department of Music, and his wife Edith Kidd, who were responsible for establishing the Thursday at Noon concert series in 1968. Application not required.

**Donor(s):** Friends of Music  
**Qualification(s):** Student registered in the Honours B.A. or other honours degree program with either a major or a minor in Music, who has completed at least 15.00 credits and who has the highest average (above 70%) in Music courses.

**Amount:** 1 award of $500

Rex Barrell Prize in French [I0393]

Established by University Professor Emeritus Rex A. Barrell. Application not required.

**Donor(s):** Dr. Rex A. Barrell  
**Qualification(s):** Awarded to the student with the best major essay in FREN*3070, or HIST*3070 in Canadian History, particularly its local dimension.

**Amount:** 1 non-monetary

Ruth and Eber Pollard Award in Canadian History [I0362]

Provided by the Guelph Historical Society in recognition of Ruth and Eber Pollard’s contribution as President and Vice-President, respectively, of the Society from 1973 to 1993. Application not required.

**Donor(s):** The Guelph Historical Society  
**Qualification(s):** The award is for the best essay presented by a student in HIST*4470 or HIST*4970 in Canadian History, particularly its local dimension.

**Amount:** 1 award of $500

Samuel and Saidye Bronfman Family Foundation Printmaking Prize [I0035]

Application not required.

**Donor(s):** From the Samuel and Saidye Bronfman Family Foundation  
**Qualification(s):** Student enrolled in a printmaking course at any level who produces the most outstanding print during the semester. The prize-winning print will become part of the Print Study Collection.

**Amount:** 3 awards of $100

Samuel Sidlofsky Scholarship [C0114]

Offered by friends, colleagues, and former students in recognition of the contributions of Professor Samuel Sidlofsky to the University of Guelph Community over 24 years. Application not required.

**Donor(s):** Friends, colleagues and former students of Professor Samuel Sidlofsky  
**Qualification(s):** Full-time student graduating at the Spring convocation or to a student who has graduated at the previous Winter or Fall convocation in an honors program in the Department of Sociology and Anthropology with the highest aggregate mark in at least 2 courses dealing with prejudice, race, ethnicity, discrimination and/or aging.

**Amount:** 1 award of $100

Society of Management Accountants of Ontario Scholarship [C0268]

The scholarship will be awarded at summer convocation. Application not required. One award of $500 and a free course enrolment in the first complete CMA subject enrolled in the Society's program.

**Donor(s):** Society of Management Accountants, Grand River Chapter  
**Qualification(s):** Full-time student graduating from B.Comm., B.A. (minor in Business Administration), or B.Sc. (minor in Business Administration), or B.S.C.(Agr.) (major in Agriculture Business or Agricultural Economics) programs. Student with the highest average in the 2 courses Financial Accounting AGEC*2220 and Intermediate Accounting AGEC*3330.

**Amount:** 1 award of $500, and a free course enrolment in the first complete CMA subject enrolled in the Society's program

Spanish Embassy Prizes [C0269]

Application not required.

**Donor(s):** The Spanish Embassy  
**Qualification(s):** Most outstanding graduating students in Spanish. Academic standing will be used to determine the recipient.

**Amount:** 2 Book prizes

Statistics Graduation Prize [C0508]

Awarded at Summer Convocation. Application not required. One award of $250 and a commemorative plaque.

**Donor(s):** College of Physical and Engineering Science  
**Qualification(s):** The graduating student who has majored in statistics and who in the past year has graduated from an honours degree program with the highest cumulative average over 80%.

**Amount:** 1 award of $250, 1 Commemorative plaque

Stephanie Wilken Volunteer Award [I0449]

Established by the Wilken family in memory of Stephanie Wilken, BA 1995. Apply to Student Financial Services with letter indicating the kind and extent of volunteer activities at the Wellness Centre by October 1. Selection committee is the Senate Committee on Awards on the recommendation of the Student Wellness Educator at the Wellness Centre.

**Donor(s):** Bev and Darlene Wilken  
**Qualification(s):** Student registered in any undergraduate degree program, who has been a volunteer for at least two semesters at the Wellness Centre. The recipient will be selected on the basis of academic performance in all courses to date and volunteer work at the Wellness Centre.

**Amount:** 1 award of $1,000

Swiss Embassy Prizes [C0275]

Offered by the Swiss Consulate. Application not required.

**Donor(s):** Mr. H.W. Gasser, Swiss Embassy of Ottawa  
**Qualification(s):** Outstanding honour students in French, German and Italian at the end of the 8th semester.

**Amount:** 3 Book prizes

T.K. Warley Agrifood Policy Prize [I0212]

Established by Prof. T.K. Warley, former Chair of the Department of Agricultural Economics and a faculty member of the Ontario Agricultural College from 1970 to 1991. Application not required.

**Donor(s):** Professor T.K. Warley  
**Qualification(s):** Student providing the best term paper written on a public policy issue relating to the agrifood system or rural society in courses such as AGEC*3030 Price and Production Analysis, AGEC*4000 Agricultural and Food Policy, and AGEC*4720 Special Study in Agricultural Economics.

**Amount:** 1 award of $500

Ted Hadwen Scholarship [C0463]

Application not required.

**Donor(s):** Department of Sociology and Anthropology  
**Qualification(s):** Student graduating with an honours major in either Sociology or Anthropology whose thesis has been judged to be the best among those completed during the academic year ending with the completion of the Winter semester.

**Amount:** 1 award of $100

Ted Newton Memorial Scholarship [I0198]

Established in honour of Professor Ted Newton, the founding chair of the Department of Mathematics and Statistics. Awarded in the Fall semester. Application not required.

**Donor(s):** Family, friends and colleagues of Dr. T.D. (Ted) Newton  
**Qualification(s):** Student majoring in mathematics or statistics in year 2 (i.e. one who has completed a minimum of 5.0 credits up to a maximum of 9.75 credits) who has the highest average over 80% on a minimum of 4.0 credits in year 1 (i.e., while the first 4.0 to 4.75 credits are in progress. A student may be considered for this award only once.

**Amount:** 1 award of $1,500

The Jack and Lillian MacDonald Scholarship [E0379]

Family, friends, and colleagues of Lillian MacDonald and Dr. Jack MacDonald, Vice-President, Academic, of the University of Guelph from 1986 to 1995, have established a scholarship that recognizes their commitment to increasing the accessibility of post-secondary education to aboriginal persons. Apply by letter to Student Financial Services by April 1.

**Donor(s):** Jack and Lillian MacDonald  
**Qualification(s):** In the first instance, the award will be given to an entering student coming from the Grand River Polytechnical Institute (GRPI) and who has received the highest cumulative average in the Native University Access Program. If there is no entering student in any one year, the scholarship will be awarded to the in-course student who is a graduate of the GRPI who has the highest cumulative average at the University.

**Amount:** 1 award of $900

Thomas H. Peters Scholarship [I0233]

Application not required.

**Donor(s):** Friends and associates of Thomas H. Peters  
**Qualification(s):** Student in any academic program of the University who has completed 15.00 credits in Land Reclamation (e.g. CROP*2280, SOIL*3200), with a minimum 10.0 credits completed. Applicants must have a minimum of 70% cumulative average and have demonstrated an interest and aptitude in the area of crops and land reclamation.

**Amount:** 1 award of $250
### Scholarships and Other Awards, Bachelor of Arts

#### IX. Scholarships and Other Awards, Bachelor of Arts

<table>
<thead>
<tr>
<th>Scholarship Name</th>
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</tr>
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<tbody>
<tr>
<td><strong>Toronto District Beekeeper's Association Scholarship</strong></td>
<td>$200</td>
<td>Undergraduate student enrolled in the honours History program who submits the best paper for courses</td>
</tr>
<tr>
<td><strong>Van Stralen and Van Der Hoeven Memorial Scholarship</strong></td>
<td>$800</td>
<td>Student who is a member or former member, or who is from the immediate family of a member of United</td>
</tr>
<tr>
<td><strong>United Steelworkers LU 4120 Scholarship</strong></td>
<td>$500</td>
<td>Student majoring in Mathematics and Statistics. Apply by letter outlining activities and interest in</td>
</tr>
<tr>
<td><strong>Wayne Thompson Prize</strong></td>
<td>$750</td>
<td>Fourth year student majoring in mathematics (i.e., one who has completed a minimum of 15.00 credits up</td>
</tr>
<tr>
<td><strong>W.S. Reid Essay Prize</strong></td>
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<td>Undergraduate student enrolled in the general or honours program in History who has submitted the best</td>
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<td><strong>Wally Fraser Mathematics Scholarship</strong></td>
<td>$750</td>
<td>Third year student majoring in mathematics (i.e., one who has completed a minimum of 10.00 credits up</td>
</tr>
<tr>
<td><strong>Wayne Thompson Prize</strong></td>
<td>$100</td>
<td>Graduating student who has the highest overall cumulative average in the core courses.</td>
</tr>
<tr>
<td><strong>Wilma Hollywood Memorial Scholarship</strong></td>
<td>$100</td>
<td>Established by the Department of Psychology, in honour of the late Wilma Hollywood, a long-serving</td>
</tr>
<tr>
<td><strong>Year 3 Mathematics Scholarship</strong></td>
<td>$200</td>
<td>Established by the Department of Mathematics and Statistics. Application not required.</td>
</tr>
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#### History

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**Last Revision: October 18, 2005**

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**2005-2006 University of Guelph Undergraduate Calendar**
Year 3 Statistics Scholarship [10597]
Awarded in the Fall semester. Application not required.

**Donor(s):** The Department of Mathematics and Statistics

**Qualification(s):** Fourth year student majoring in statistics (i.e., one who has completed a minimum of 15.0 credits up to a maximum of 19.75 credits) who has a cumulative average of at least 80%, and the highest average over 80% in a minimum of 4.00 credits in year 3 (i.e., while earning 10.0 to 14.75 credits). A student may be considered for this award once only.

**Amount:** 1 award of $750

# In-course Scholarships with Financial Need

3M Canada Scholarships [10564]
Provided by 3M Canada. Apply to Student Financial Services by October 7 with a completed Financial Need Assessment Application.

**Donor(s):** 3M Canada Company

**Qualification(s):** Students entering Year 4 (i.e., having completed a minimum of 15.0 credits) with demonstrated financial need and high academic achievement.

**Amount:** 2 awards of $1,000

Alf and Mary Hales Undergraduate Scholarship in Political Science [14511]
Alf and Mary Hales, with the assistance of the Ontario government's OSOTF program, endowed this annual award. Apply with a completed Need Assessment Form to Student Financial Services by October 7. ACCESS AWARD.

**Donor(s):** Alf and Mary Hales

**Qualification(s):** Students with demonstrated financial need completing their third year of study (semester 6) in an honours major in Political Science. The scholarships will be given to eligible students who have the highest cumulative averages in Political Science courses. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 2 awards of $1,000

Beatrice Youngman Prize in Music [14378]
The Guelph Music Club, with the assistance of the Ontario government's OSOTF program, has provided this annual scholarship to honour Beatrice Youngman, a former piano teacher, a volunteer and President of the Club, and a recognized contributor to music and culture within Guelph and the driving force of the Guelph Music Club for over twenty years. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD.

**Donor(s):** The Guelph Music Club

**Qualification(s):** Student from the B.A. program in honours Music, with demonstrated financial need who has completed the sixth semester with the highest cumulative average. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 1 award of $1,500

College of Arts Honours Scholarships [14524]
Established by supporters of the College of Arts, with the assistance of the Ontario government's OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services by October 7. ACCESS AWARD.

**Donor(s):** Numerous Donors

**Qualification(s):** Students with demonstrated financial need in an honours program in the College of Arts. A minimum cumulative average of 80% and registration in semester 5, 6 or 7 is required at the time of application. Awarded in semesters 7 or 8. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 5 awards of $500

CPES Dean’s Scholarship - ACCESS [14527]
Established by a number of industrial, commercial and public sector corporations, with the assistance of the Ontario government's OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. This award may be held once only. ACCESS AWARD.

**Donor(s):** Established by a number of industrial, commercial and public sector corporations

**Qualification(s):** Students with demonstrated financial need registered in any major program in C.P.E.S. in, or beyond, second year. A minimum 80% cumulative average is required. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 1 award of $750

# Earl B. MacNaughton Entrance Scholarships [14172]
Established by friends, faculty, staff, alumni and students of the University to honour Earl B. MacNaughton, former head of the Department of Physics and founding Dean of the College of Physical and Engineering Science, with the assistance of the Ontario government’s OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Fall semester. ACCESS AWARD.

**Donor(s):** Earl B. MacNaughton

**Qualification(s):** Students currently registered in the final year of an honours program in the College of Physical and Engineering Science with high academic standing, demonstrated financial need, and who have completed a minimum of 15.0 credits. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 2 awards of $1,000

# Eleanor Morgan & Bill Archibald Scholarships [14540]
The family of Eleanor and Bill Archibald, with the assistance of the Ontario government's OSOTF program, provide this scholarship in memory of their parents. Apply with a completed Need Assessment Form and a letter outlining community involvement to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD.

**Donor(s):** The Family of Eleanor & Bill Archibald

**Qualification(s):** Students registered in any program with a minimum of 5.0 credits who have cumulative 70% average, has demonstrated community involvement, and financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 1 award of $1,000

# Ervin Demers Memorial Scholarship [10406]
The family and friends of Ervin Demers, a first-year student at the University of Guelph who was tragically killed in a car accident in 1996, have established this scholarship in her memory. Apply to Student Financial Services by April 1 with a completed Need Assessment Form, along with one supporting reference letter from a Residence Assistant, Residence Manager, or Residence Officer.

**Donor(s):** Family and friends of Ervin Katrina Demers

**Qualification(s):** A student who has resided in an on-campus residence during the first semester and who has a cumulative average of 70%. This award is payable in the second year (ie completed 5.0 course credits) of study. Preference will be given to students with demonstrated financial need and who have participated significantly in extracurricular activities.

**Amount:** 1 award of $1,000

# Euclid-Hitachi Scholarships [14517]
Established by Euclid-Hitachi of Canada Ltd., with the assistance of the Ontario government's OSOTF program, to assist students with financial need to continue their studies as full-time students. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD.

**Donor(s):** Euclid-Hitachi of Canada Ltd.

**Qualification(s):** Students with a minimum cumulative average of 70% with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 2 awards of $1,500

# Gerald and Mary Henley Rubio Scholarship [14534]
Professors Mary Henley Rubio and the late Gerald Rubio, with the assistance of the Ontario government's OSOTF program, have provided this scholarship to an outstanding student majoring in English. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD.

**Donor(s):** Professor Mary Henley Rubio

**Qualification(s):** B.A. students majoring in English, who have completed at least 5.0 credits, and have a cumulative average of at least 80% are eligible to apply. The student with the greatest financial need will be selected. If no students majoring in English are eligible, a student majoring in History may be selected using the same criteria. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 1 award of $1,500
Gordon Ashton Scholarship [I4535]
Established in memory of Prof. Gordon Ashton, member of the Department of Physics and Mathematics (1956-1966) and the Department of Mathematics and Statistics (1966-1986), with the assistance of the Ontario government's OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD
Donor(s): C. Dixon More
Qualification(s): All statistics majors who have completed a minimum of 10.00 credits with a cumulative average of at least 70% and who have demonstrated financial need. Selection is by the College of Physical and Engineering Science Awards Committee, on the recommendation of Student Financial Services, from eligible students assessed as having the greatest financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).
Amount: 1 award of $500

Graham Family Incentive Scholarship [I4506]
Provided by Harvey Graham (OAC '39) with the assistance of the Ontario government's OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD
Donor(s): Harvey Graham OAC '39
Qualification(s): Students entering the fourth year of a four year degree program, maintaining at least a 70% program average and demonstrating financial need, who have previously received the Harvey Graham Bursary. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).
Amount: 1 award of $5,000

Guelph Philosophical Society Scholarship [I4119]
Established by the Guelph Philosophical Society with the assistance of the Ontario government's OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD
Donor(s): The Guelph Philosophical Society
Qualification(s): Undergraduate students with a major in Philosophy, in semesters 1 to 4, have a minimum cumulative average of 80% and have demonstrated financial need as determined by Student Financial Services. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards). Selection is made by the College of Arts Awards Committee on the recommendation of the Department of Philosophy Awards Committee from eligible candidates.
Amount: 1 award of $500

Jay Majithia Scholarship [I4518]
Provided to honour Professor Jay Majithia, in recognition of his support and leadership while a faculty member in the Department of Computing and Information Science, by Margaret Middleton, C.P.E.S. ’86 with the assistance of the Ontario government's OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services by October 7 and if applicable, attach a letter stating research interest and involvement. Awarded in the Winter semester. ACCESS AWARD
Donor(s): Mrs. Margaret L. Middleton
Qualification(s): Computer and Information Science students with demonstrated financial need who have a minimum cumulative program average of 70%. Preference will be given to eligible students who are applying for, or participating in, departmental research, including a special project or an independent study option. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).
Amount: 2 awards of $500

Kathleen and R. Douglas Kennedy Scholarship in CSAHS [I0546]
Kathleen (MAC ’39) and Douglas (OAC ’39) Kennedy met at a “hop” on campus in 1937 and later married. They established this scholarship to celebrate their time on campus and their 62 years of marriage. Apply to Student Financial Services by October 7 with a completed Need Assessment Form.
Donor(s): Mrs. Kathleen Kennedy and the late Mr. R. Douglas Kennedy
Qualification(s): This scholarship will be awarded to a student in CSAHS with high academic achievement. Preference will be given to students registered in the Department of Family Relations and Applied Nutrition, the School of Hospitality and Tourism Management, or the Department of Marketing and Consumer Studies and to students with demonstrated financial need.
Amount: 1 award of $1,000

Michael and Virginia Walsh Scholarship in Philosophy [I4529]
Established by Michael Walsh, BA'69, MA'70, PhD'93, and Virginia (Trimble) Walsh, BA'72 with the assistance of the Ontario government's OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD
Donor(s): F. Michael Walsh, BA ’69, MA ’70, PhD ’93 and D. Virginia (Trimble) Walsh, BA 72
Qualification(s): Undergraduate B.A. student majoring in Philosophy, with demonstrated financial need, at or beyond semester 5, with a minimum 80% cumulative average. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards). Selection is by the College of Arts Awards Committee on the recommendation of the Department of Philosophy Awards Committee and Student Financial Services.
Amount: 1 award of $1,000

R. Douglas and Kathleen Kennedy Scholarship in OAC [I0547]
Douglas (OAC '39) and Kathleen (MAC '39) Kennedy met at a “hop” on campus in 1937 and later married. They established this scholarship to celebrate their time on campus and their 62 years of marriage. Apply to Student Financial Services by October 7 with a completed Need Assessment Form.
Donor(s): Mrs. Kathleen Kennedy and the late Mr. R. Douglas Kennedy
Qualification(s): This scholarship will be awarded to a student in OAC with high academic achievement and demonstrated financial need.
Amount: 1 award of $1,000

Studio Arts Specialized Studio Practice Scholarship [I4522]
Established by supporters of the Studio Art program, with the assistance of the Ontario government's OSOTF program to assist students with financial need to complete Specialized Studio Practice. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. Eligible students will be invited to submit a portfolio to the School of Fine Art and Music. This award may be held only once. Selection will be based on the student’s portfolio. ACCESS AWARD
Donor(s): Numerous Donors
Qualification(s): Studies with demonstrated financial need registered in SART*4850 Specialized Studio Practice I or SART*4860 Specialized Studio Practice II. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).
Amount: 1 award of $400

Tara Lynn Giuliani Memorial Award [I0375]
In memory of Tara Lynn Giuliani, a bright young woman, who did not let her blindness stand in the way of her studies at the University of Guelph. Apply to the Centre for Students with Disabilities by November 25.
Donor(s): The Giuliani Family
Qualification(s): Most academically promising applicant with a demonstrated disability and having financial need.
Amount: 1 award of $500

Willson Woodside Memorial Scholarship [I4536]
Established in memory of Willson Woodside, a founding member and former chair of the Department of Political Science, with the assistance of the Ontario government’s OSOTF program. Apply with a completed Need Assessment Form, a covering letter outlining involvement on campus or in the community, and one letter of reference from an individual addressing the applicant’s leadership ability to Student Financial Services, by October 7. Awarded in the Winter semester. ACCESS AWARD
Donor(s): Department of Political Science
Qualification(s): Undergraduate student in Political Science who has completed at least 10.00 credits with minimum cumulative average of 70%. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).
Amount: 1 award of $500

Yeandle Family In-Course Scholarships [I3546]
Provided by the Estate of Audrey Yeandle, a Mac’25 graduate and life-long supporter of the University, with the assistance of the Ontario government’s OSOTF program. Apply to Student Financial Services by October 7 with a completed Need Assessment Form. ACCESS AWARD
Donor(s): The Estate of Audrey Yeandle
Qualification(s): Full-time undergraduate students registered in each of the eight academic units and CIDS within the College of Social and Applied Human Sciences. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards). Awards will be made on the basis of financial need and academic achievement.
Amount: Several awards up to $2,000
## In-course Awards with Financial Need

### Class of OAC '36 Bursaries [I3501]

Established by the Class of OAC '36 with the assistance of the Ontario government's OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

**Donor(s):** Class of 1936  
**Qualification(s):** An OAC degree student enrolled in any degree program who has demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 2 awards of $500

### Bette Stephenson Accessibility Bursary [I3054]

In recognition of the work of Dr. Bette Stephenson in supporting students with learning disabilities, the University of Guelph offers bursaries to students who have demonstrated financial need and who have a learning disability. These bursaries will be used to offset the costs of a required assessment, or the purchase of a computer that is required to support their learning needs. Apply to Student Financial Services, with a completed Need Assessment Form by October 7. Awarded in the Winter semester.

**Donor(s):** University of Guelph  
**Qualification(s):** Full-time students with demonstrated financial need. Preference will be given to a student who resides in a member municipality of the Credit Valley Authority Foundation.  
**Amount:** 1 award of $500

### Brinson Partners Inc. Bursaries [I3526]

Brinson Partners Inc., with the assistance of the Ontario government's OSOTF program, has established these bursaries. Apply with a completed need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

**Donor(s):** Brinson Partners Inc.  
**Qualification(s):** Students with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 2 awards of $1,500

### Burnbrae Farms Bursaries [I3525]

Established by Burnbrae Farms, with the assistance of the Ontario government's OSOTF program to assist students with financial need to continue their studies as full-time students. Apply with a completed need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

**Donor(s):** Burnbrae Farms  
**Qualification(s):** Full-time students with demonstrated financial need. Preference will be given to students with a demonstrated interest in poultry science. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 2 awards of $1,500

### Class of '72: 25th Reunion Bursaries [I3512]

Established by the Class of '72: 25th Reunion Fund with the assistance of the Ontario government's OSOTF program to support students who wish to study full-time. Apply to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

**Donor(s):** Class of '72: 25th Reunion  
**Qualification(s):** Full-time students with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 2 awards of $1,500

### Class of OAC '33 Bursaries [I3531]

Established by the class of OAC '33 on the occasion of their 65th Anniversary, with the assistance of the Ontario government's OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

**Donor(s):** Class of 1933 (in honour of the late Prof. W.J. Squirell)  
**Qualification(s):** OAC undergraduate students with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 3 awards of $000

### Credit Valley Conservation Authority Foundation Bursary [I3007]

Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester.

**Donor(s):** Credit Valley Conservation Authority Foundation  
**Qualification(s):** Full-time student registered in B.A. Geography, B.SC. Geographic Information Systems and Environmental Analysis, B.SC. Engineering (Water Resource Engineering), B.SC.(Agr.) Agroecosystem Management or B.SC.(Env.) Geography majors with demonstrated financial need. Preference will be given to a student who resides in a member municipality of the Credit Valley Authority Foundation.

**Amount:** 1 award of $500

### David R. Leach Memorial Bursary [I3534]

Provided in memory of David R. Leach by his family, with the assistance of the Ontario government's OSOTF program. David entered OAC in 1969 as a member of OAC '73 and graduated with a B.Sc. in Agriculture in 1974. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

**Donor(s):** Mrs Deborah Leach-Sartor  
**Qualification(s):** OAC undergraduate degree or diploma student who is physically disabled as determined by the Centre for students with Disabilities, has satisfactory academic standing and who has demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 1 award of $1,000

### Elizabeth Burton Bursaries [I3503]

Mrs. Elizabeth Burton, with the assistance of the Ontario government's OSOTF program, provides bursaries to students with demonstrated financial need. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD. A number of awards totalling $2,900.

**Donor(s):** Mrs. Elizabeth Burton  
**Qualification(s):** Students in second, third or fourth year with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** Several awards of $2,900

### George and Margaret J. Miles Memorial Bursary [I3544]

Established by the family to honour the memory of the parents, George and Margaret J. Miles, life long supporters of education. Apply with a completed Need Assessment Form and a letter describing involvement in extra-curricular activities to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

**Donor(s):** Established by the Miles Family  
**Qualification(s):** All undergraduate arts and social science students with demonstrated financial need who are in or beyond semester 3 and have at least a 75% cumulative average in all courses completed to date are eligible to apply. Preference will be given to students who participate and provide leadership in extra-curricular or community activities (examples include student government, charitable organization, volunteer work, Big Brothers/Sisters, contributions to school and/or community, etc.). Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 1 award of $1,500

### Gryphon Investment Council Bursaries [I3513]

Established by Gryphon Investment Counsel, with the assistance of the Ontario government's OSOTF program. Awarded in the Winter semester. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

**Donor(s):** Gryphon Investment Council Inc.  
**Qualification(s):** Full-time students with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 2 awards of $1,500
### Guelph Compassionate Health Bursary [I3061]
This bursary has been established and approved by the Student Health and Dental Committee to assist students facing unforeseen health needs above and beyond the benefits offered through the mandatory University of Guelph student health plan. Submit a Financial Need Assessment application accompanied by the physician recommendation, cost estimates and physician contact information to the Awards Officer, Student Financial Services. The application will be reviewed throughout the semester to handle emergencies immediately.

**Donor(s):** Student Health and Dental Plan Reserve

**Qualification(s):** All currently registered students at the University of Guelph that are covered under the University of Guelph mandatory Student Health Plan. The student must require treatment for a condition not currently or completely covered by the Student Health Plan.

**Amount:** Several varies to a maximum $1,500

### Guelph Student Assistance Program [I3056]
These bursaries have been established and approved by undergraduate students through student referendum to assist undergraduate and University of Guelph campus diploma students in financial need. Apply to Student Financial Services with a completed Need Assessment Form by October 7. Typically, awarded in the Winter semester.

**Donor(s):** Undergraduate Students

**Qualification(s):** Full-time undergraduate students registered in any degree program with demonstrated financial need. Preference will be given to students who are not eligible for provincial and/or federal assistance programs such as Ontario Student Assistance Program (OSAP) and/or Canada Student Loan Program (CSLP).

**Amount:** Several awards of varying amounts up to $1,000

### Gwen Karr Memorial Bursary [I3101]
Mr. T.K.C. Karr, O.A.C. ’32, has provided an endowment fund to assist students in a degree or diploma program of the Ontario Agricultural College. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester.

**Donor(s):** Mr. T.K.C. Karr, OAC ’32

**Qualification(s):** O.A.C. students with demonstrated financial need

**Amount:** Several varies

### Howard and Myrtle Rogers Bursaries [I3537]
Provided by the Estate of Howard and Myrtle Rogers, with the assistance of the Ontario government's OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

**Donor(s):** The Estate of Howard and Myrtle Rogers

**Qualification(s):** Students with demonstrated financial need. Preference will be given to students from Wellington County. Students are encouraged to apply for an award in each year of study. The award may have been held in previous years but students must demonstrate on-going financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 10 up to $2,000

### International Emergency Medical Aid Assistance [I3059]
The University of Guelph provides support to International undergraduate students that are faced with unexpected, or unforeseen financial shortfalls due to a medical issue not covered by UHIP or the Student Dental/Medical insurance plans. Students should apply to the International Student Advisor, in the Centre for International Programs office, by completing an International Student Financial Need Assessment Form and submitting medical support to meet the medical issue. These bursaries are awarded on an on-going basis.

**Donor(s):** University of Guelph

**Qualification(s):** Any International student registered in a degree program at the University of Guelph with a minimum registration of 1.50 course credits.

**Amount:** Several awards of varying amounts

### International Student Bursaries [I3009]
Mrs. Norma L. Valeriote has made available a number of bursaries. Apply to the International Student Advisor.

**Donor(s):** Mrs. Norma L. Valeriote

**Qualification(s):** Students who are citizens of Third World countries, as defined by the United Nations, who are registered in a degree or diploma program and who demonstrate financial need.

**Amount:** Several varies

### Irvine and Grace Black Memorial Bursary [I3051]
Established in memory of Irvine and Grace Black, by friends and family to recognize their many contributions to young people. Irvine, a well-known sheep breeder, was a judge at College Royal and the Royal Winter Fair for over fifty years, and Grace was active in the Women's Institute and the Fergus Fall Fair. Apply to Student Financial Services with a completed Need Assessment Form and a letter outlining involvement in the 4-H Club and/or a Women's Institute by October 7. Awarded in the Winter semester.

**Donor(s):** Family and friends of Irvine and Grace Black

**Qualification(s):** Full-time undergraduate students registered in any degree program with demonstrated financial need. Preference will be given to applicants who are, or have been, active in the 4-H Club and/or a Women's Institute.

**Amount:** 1 award of $500

### Mary L. Whitelock Bursaries [I3524]
Established by the estate of Mary L. Whitelock, a friend of the University, with the assistance of the Ontario government's OSOTF program, to assist students who wish to study full-time but who need financial support to do so. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

**Donor(s):** Estate of Mary L. Whitelock

**Qualification(s):** All undergraduate, graduate or OAC diploma students with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 13 awards of $2,000

### O.A.C. ’55 Access Bursaries [I3157]
Provided by the class of O.A.C. ’55 with the assistance of the Ontario government's OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD.

**Donor(s):** O.A.C. Class of '55

**Qualification(s):** Students at any semester level in an O.A.C. degree program or students enrolled in the B.SC.(Eng.) program with demonstrated financial need and a 60% minimum cumulative average. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award.

**Amount:** Several awards of $500

### OAC ’38 Lloyd Minshall Bursaries [I3529]
Established by OAC ’38 Alumni, with the assistance of the Ontario government’s OSOTF program, to recognize the many contributions of Lloyd Minshall to his classmates and to OAC. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

**Donor(s):** OAC ’38 Alumni

**Qualification(s):** OAC undergraduate students with demonstrated financial need in semesters 5, 6, 7 or 8 and OAC graduate students are eligible to apply. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statement on Awards).

**Amount:** 7 awards of $1,000

### OAC ’57 Bursaries [I3518]
Provided by the Class of OAC’57 with the assistance of the Ontario government’s OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

**Donor(s):** OAC ’57 and the OAC Foundation

**Qualification(s):** OAC undergraduate degree students with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 5 awards of $1,000

### OAC Alumni Foundation Access Bursaries [I3533]
Provided by the OAC Alumni Foundation, with the assistance of the Ontario government’s OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

**Donor(s):** OAC Alumni Foundation

**Qualification(s):** OAC undergraduate students with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 4 awards of $500
Ontario Co-operatives R.P. Forshaw Bursary [I3013]
The Co-operatives, Credit Unions, friends and associates of Prof. R. P. Forshaw have established this bursary. Apply to Student Financial Services with a completed Need Assessment Form by October 7. Awarded in the Winter semester.
Donor(s): The Co-operatives, Credit Unions, friends and associates of Prof. R.P. Forshaw
Qualification(s): Undergraduate students who have financial need. Preference may be given to candidates who have been or are members of a co-operative or credit union.
Amount: 1 award of $400

Ontario Grape Growers Bursary [I3033]
Offered by the Ontario Grape Growers Action Committee. Apply to Student Financial Services with a completed Need Assessment Form by October 7. Awarded in the Winter semester.
Donor(s): The Ontario Grape Growers Action Committee
Qualification(s): Students with good academic standing in semesters 3 to 6 of a degree program or semesters 3 to 4 of a diploma program administered by O.A.C., and demonstrated need of financial assistance.
Amount: Several of various amounts

T.K. Warley Bursaries [I3510]
Established by O.A.C. Alumni Association, with the assistance of the Ontario government's OSOTF program, to recognize Professor T.K. Warley's significant contribution to the O.A.C. Alumni Foundation and to students through teaching and promotion/development of "Experience Agriculture". A degree student may receive this bursary twice. Apply by letter stating qualifications with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD. Variable amounts from $500 to $2,000
Donor(s): O.A.C. Alumni Association
Qualification(s): Students, supporting (a) child(ren) who demonstrate greatest financial need, as is participation in student activities, governance, and/or college affairs. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).
Amount: Several awards of $500, Several awards of $2,000

University of Guelph Access Bursaries [I3522]
Provided by alumni and friends of the University, with the assistance of the Ontario government's OSOTF program, to support undergraduate, graduate or OAC (Guelph) diploma students who wish to study full-time but who need financial support to do so. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD. Variable amounts from $500 to $2,000
Donor(s): Alumni and Friend of the University of Guelph
Qualification(s): Full-time students with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).
Amount: Several awards of $500, Several awards of $2,000

University of Guelph Alumni Association Access Bursaries [I3523]
Established by the University of Guelph Alumni Association, with the assistance of the Ontario government's OSOTF program, to support students who wish to study full-time but who need financial support to do so. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD
Donor(s): University of Guelph Alumni Association
Qualification(s): Full-time in-course students with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).
Amount: 2 awards of $1,000

University of Guelph Child Care Bursaries [I3053]
In order to provide accessible child care to students with (a) child(ren), the University of Guelph offers bursaries to students who have demonstrated financial need. Apply to Student Financial Services, with a completed Need Assessment Form by October 7. Awarded in the Winter semester. A number of awards between $500 and $2,000.
Donor(s): University of Guelph
Qualification(s): Students, supporting (a) child(ren) who demonstrate greatest financial need, to offset the costs of child care. To be eligible, undergraduate students must be full-time (as defined by OSAP regulations) and Canadian citizens or permanent residents with demonstrated financial need.
Amount: Several awards of $500, Several awards of $2,000

University of Guelph International Bursary [I3048]
The University of Guelph provides support to International undergraduate students that are faced with unexpected, or unforeseen financial shortfalls while registered on campus. Students should apply to Benny Quay, in the Centre of International Programs office by completing an International Student Financial Need Assessment Form. These bursaries are awarded on an on-going basis.
Donor(s): University of Guelph
Qualification(s): Any International student registered in a degree program at the University of Guelph with a minimum registration of 1.50 course credits.
Amount: Several awards of $500, Several awards of $2,000

University of Guelph Undergraduate In-Course Bursaries (MET-TR-UG) [I3037]
The University of Guelph offers in-course bursaries to students who have demonstrated financial need. Apply to Student Financial Services, with a completed Need Assessment Form by October 7. Awarded in the Winter semester.
Donor(s): University of Guelph
Qualification(s): Ontario students registered for full-time studies (as defined by OSAP) in a degree program with demonstrated financial need and a minimum of 2.0 course credits completed.
Amount: Several awards ranging in value from $100 to $3,000

University of Guelph Undergraduate In-Course Bursaries (NON OSAP TR) [I3047]
The University of Guelph offers in-course bursaries to students who have demonstrated financial need. Apply to Student Financial Services, with a completed Need Assessment Form by October 7. Awarded in the Winter semester.
Donor(s): University of Guelph
Qualification(s): Undergraduate students registered for full-time studies (as defined by OSAP) in a degree program with demonstrated financial need and a minimum of 2.0 course credits completed.
Amount: Several awards to a maximum of $800
University Police Bursaries [I3019]
The University Police have made available a number of bursaries. Apply to Student Financial Services with a completed Need Assessment Form by October 7.

Donor(s): The University Police
Qualification(s): Full-time undergraduate and graduate students who have financial need.
Amount: Several varies

University Student Assistance Program [I3057]
These bursaries have been established and approved by the University of Guelph to assist undergraduate and University of Guelph campus diploma students in financial need. Apply to Student Financial Services with a completed Need Assessment Form by October 7. Typically, awarded in the Winter semester.

Donor(s): University of Guelph
Qualification(s): Full-time undergraduate students registered in any degree program with demonstrated financial need. Preference will be given to students who are not eligible for provincial and/or federal assistance programs such as Ontario Student Assistance Program (OSAP) and/or Canada Student Loan Program (CSLP).
Amount: Several awards of varying amount to a maximum of $1,000

In-course Travel Grants

A.W. Archibald Memorial Travel Grant [T4541]
Mr. A.W. Archibald, OAC '33 with the assistance of the Ontario government's OSOTF program, provide these travel grants to students who plan to travel for a semester abroad or to attend other schools outside of Canada for workshops or other academic related purposes. Apply to Student Financial Services with a letter outlining proposed travel plans and academic purpose accompanied by a letter of support from a faculty member or student advisor, a travel budget, and a completed Financial Need Assessment Form by October 7.

Donor(s): A.W. Archibald, OAC '33
Qualification(s): Undergraduate students in any OAC program with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).
Amount: Several up to $1000

Arthur D. Latornell Undergraduate Travel Grants [T0058]
An endowment fund established in memory of Arthur D. Latornell, OAC '50, who had a life-long professional career in resource management and conservation and a special interest in helping young people. The funds are given to provide twenty-five travel grants. These travel grants are offered to assist students in attending conferences, courses, co-op student exchanges or study abroad programs in these areas. Students may receive this grant only once. Apply to Student Financial Services. Deadline dates are June 1 for Fall travel, October 1 for Winter travel, and February 1 for Summer travel. Up to 80% of estimated travel costs to a maximum of $1,000.

Donor(s): The Estate of Arthur D. Latornell
Qualification(s): Students in semester 3 and above. Students must have at least a 70% average and a primary area of interest related to natural resources management, environmental science, conservation, soil science and/or rural development. Students will be asked to submit a one-page review of their travel experience, including the role the travel grant played, to the University after completion of the travel.
Amount: several up to a maximum of $1000

Canadian Friends of the Hebrew University in Jerusalem Travel Bursary [T4532]
The Canadian Friends of the Hebrew University of Jerusalem, with the assistance of the Ontario government's OSOTF program, have established these travel scholarships to assist students to the Hebrew University of Jerusalem. Apply by letter with a completed Need Assessment Form to Student Financial Services by May 1.

Donor(s): Canadian Friends of the Hebrew University in Jerusalem
Qualification(s): Undergraduate degree students in either the second or third year of study, Masters students in the first year of study, and Doctoral students in the first three years of study are eligible to be considered. Applicants must provide documentation that they have approval from the Hebrew University of Jerusalem (i) to take courses and (ii) for the period of the visit. Students must also arrange appropriate University of Guelph approvals for a “Letter of Permission” prior to applying. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).
Amount: 3 Awards with varying amounts

J. Ross Cavers International Exchange Scholarship [T0051]
OAC '53 provides this scholarship in memory of J. Ross Cavers, their honorary year member and Professor Emeritus. Apply to Student Financial Services, by April 1.

Donor(s): OAC '53
Qualification(s): Undergraduate student in OAC with travel and/or housing costs associated with a semester or more of academic study or cooperative work experience through a recognized university outside Canada. Students must have completed [7.50] credits and have satisfactory academic standing in their undergraduate course work. Preference will be given to a candidate who has exhibited qualities of leadership.
Amount: 1 award of $1,000

Massey Fund Travel Scholarships [T0417]
Travel scholarships available from the Massey Fund. Not tenable with other awards that support travel costs. Apply by letter outlining the study abroad/exchange program and travel costs to the OAC Dean's Office by April 15.

Donor(s): OAC Awards Committee
Qualification(s): OAC undergraduate students who are participating in an approved study abroad or exchange program outside Canada. Academic standing in the last two full-time semesters or equivalent will be used to determine recipients.
Amount: 1 award of $750

Michael Chepesuik International Travel Grant [T0373]
Offered in memory of the late Michael W. Chepesuik, O.A.C. '30. Application by letter should be made to the O.A.C. Dean's Office by April 15, and include a description of the study program. Travel Grant (or grants). Up to 80% of the actual travel costs associated with the study outside of Canada program will be covered up to a maximum of $1,000 per student.

Donor(s): Mr. Michael W. Chepisuik
Qualification(s): Undergraduate or graduate students pursuing studies in Agricultural Economics and who are studying outside of Canada for one or more semesters.
Amount: 1 award of $1,000

OAC '47 Travel Bursaries [T3505]
Provided by OAC'47 on the occasion of its 50th anniversary and with the assistance of the Ontario government's OSOTF program. Apply by letter with a completed Travel Award Application and a Need Assessment Form for Travel awards to Student Financial Services by October 1, February 1 or June 1.

Donor(s): OAC '47
Qualification(s): OAC undergraduate students who have demonstrated financial need and who are participating in a study abroad program for academic credit at an approved institution. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).
Amount: 3 awards of $600

Richard and Sophia Hungerford Undergraduate Travel Scholarships [T4508]
The estate of Richard and Sophia Hungerford, with the assistance of the Ontario government's OSOTF program, has established an endowment to provide travel scholarships to undergraduate students with demonstrated financial need who wish to study in developing countries, or attend conferences on development. Apply to Student Financial Services with a description of the intended travel, an estimate of the travel costs and a completed Need Assessment Form at least one month prior to departure. Deadline dates are June 1 for Fall travel, October 1 for Winter travel, and February 1 for Summer travel.

Donor(s): The Estate of Richard Hungerford
Qualification(s): Registered undergraduate students with demonstrated financial need who have at least a 70% cumulative average in the last 2 semesters of full-time equivalent study are eligible. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).
Amount: Several awards of varying amounts to a maximum of $1,000

Roderick Long International Travel Grant [T0360]
Offered in memory of the late Roderick Long, O.A.C.'54. Up to eighty percent of the travel costs associated with the study outside of Canada program will be covered up to a maximum of $1,000 per student. Application by letter should be made to the Dean O.A.C. by April 15, and include a description of the study abroad program. Travel Grant (or grants) totalling $1,500.

Donor(s): Mr. Roderick W. Long
Qualification(s): O.A.C. undergraduate student who is studying outside of Canada on an approved program for one or more semesters.
Amount: Several awards of $1,500
The University of Guelph, through the sale of Guelph London House, has established an endowment to provide travel scholarships to undergraduate and graduate students who wish to study outside of Canada but need financial support to do so. A total of $35,000 is available in the fund. Apply to Student Financial Services with a completed Travel Grant Application and Financial Need Assessment Form by October 1 for Winter travel, February 1 for Spring travel and June 1 for Fall travel.

**Donor(s):** University of Guelph  
**Qualification(s):** Registered undergraduate and graduate students that have completed 5.0 credits with demonstrated financial need who have a minimum 70% cumulative average in the last two semesters of full-time equivalent study are eligible to apply. The value of the award will depend on the assessed financial need. The scholarship can cover additional costs of travelling outside of Canada including: airfare, administrative costs, and differential costs of accommodation.

**Amount:** Several up to $1,000
The University reserves the right to amend awards subject to the availability of funds.

### Entrance Scholarships

**Angelo and Frank Agro Undergraduate Scholarship [E0520]**

Provided by the Agro Scholarship Fund. Apply by April 1 to Student Financial Services, including a covering letter describing your activities within 4H (details of 4H club membership, creativity in support of 4H activities, participation in activities and events, volunteer leadership roles, etc.) and a letter of reference from a 4H club official attesting to your involvement. $4,000 ($1,000 annually for four years).

**Donor(s):** The Frank Agro Estate

**Qualification(s):** Full-time students entering semester 1 who have attained a minimum 80% admission average in their graduating year from high school. The scholarship will be awarded to the eligible student demonstrating the greatest past or continuing involvement with 4H activities. Recipients must maintain full-time studies and at least a 70% program average each year for continuation of the award.

**Amount:** 1 award of $4,000

**Board of Governors’ Scholarships [E0317]**

The scholarship will be paid in eight equal installments with the first and second payments payable shortly after registration in semesters 1 and 2. The 3rd to 8th payments are contingent upon obtaining a minimum average of 80% over the previous two semesters of full-time study. Students who fail to qualify for a payment may re-qualify by subsequently obtaining an 80% or better average over the previous two semesters of full-time study. Application not required. Twenty-five awards of $8,000 ($2,000 annually for 4 years).

**Donor(s):** Board of Governors

**Qualification(s):** Outstanding students entering semester 1.

**Amount:** 1 award of $4,000

**Gordon McNally Memorial Award [E0203]**

In memory of Gordon McNally, Professor of Zoology in the Ontario Agricultural College (1934-1971) and College of Biological Science (1971-1979), who had a great interest in extracurricular activities. Applications by students or recommendations by high school teachers should be made by letter to the Associate Registrar, Student Financial Services by April 1.

**Donor(s):** Jean and Peter Gower

**Qualification(s):** Students entering any undergraduate program in the College of Biological Sciences. The recipient will be selected on the basis of academic performance and demonstration of outstanding contributions to extracurricular activities and/or community services.

**Amount:** 1 award of $500

**Gordon W. Innes Scholarship [E0140]**

Established by the Gordon W. ‘Sparky’ Innes Scholarship Fund Committee of the Woodstock Agricultural Society. Application not required.

**Donor(s):** Gordon W. ‘Sparky’ Innes Scholarship Fund Committee of the Woodstock Agricultural Society

**Qualification(s):** Student from Oxford County with the highest admission average.

**Amount:** 1 award of $1,400

**International Student Entrance Scholarships [E0408]**

In support of the University's strategic direction of internationalism, entrance scholarships are available each Fall semester to the top international students entering their first semester of an undergraduate degree program at the University of Guelph. Applicants must submit all relevant documentation for admission consideration by March 1 to be considered for a scholarship. These scholarships are awarded on a competitive basis. Application not required.

**Donor(s):** University of Guelph

**Qualification(s):** Students on a “student visa” entering an undergraduate degree program at the University of Guelph with a record of high academic achievement and extracurricular involvement, and studying full-time. This award is offered for the first year of study.

**Amount:** Several awards ranging in value from $500 - $6,000

**J.D. MacLachlan Scholarship [E0170]**

Provided by the family of J.D. MacLachlan. Application not required.

**Donor(s):** The J.D. MacLachlan Trust

**Qualification(s):** Student entering the University with the highest admission average.

**Amount:** 1 award of $1,500

**John Vanderkamp Memorial Scholarship [E0321]**

Established by family, friends and colleagues of John Vanderkamp, former Chair of the Department of Economics, respected Dean of the College of Social Science (1981-1991) and an enthusiastic promoter of liberal education as encompassed in the Arts & Science Program. Apply to Student Financial Services by June 30 with a letter describing involvement in extra-curricular activities and two reference letters from counsellors, teachers or mentors.

**Donor(s):** Established by the family, friends and colleagues of John Vanderkamp

**Qualification(s):** Academically outstanding students entering the B.A.S. program with significant involvement in extra-curricular activities.

**Amount:** 1 award of $500

**Lincoln Alexander Chancellor’s Scholarship [E0493]**

These scholarships, named to honour Lincoln Alexander, Chancellor of the University of Guelph and former Lieutenant Governor of Ontario, on his 80th birthday, are awarded to academically distinguished entering students who are Aboriginal, persons with a disability or members of a racial minority, and who have made significant contributions to their schools and communities and demonstrated the potential to become leaders in society. These scholarships are intended to enhance student diversity and are amongst the most prestigious entrance awards at the University of Guelph. Nominations are made by high school principals and are to be sent to the Associate Registrar, Student Financial Services, by March 1. Two awards of $20,000 ($5,000 annually for 4 years).

**Donor(s):** Many Donors

**Qualification(s):** Entering students of academic distinction who are Aboriginal, persons with a disability or members of a racial minority, and who have made significant contributions to their schools and communities and demonstrated the potential to become leaders in society. Financial need may be taken into consideration.

**Amount:** 2 awards of $20,000

**McArthur-Humphries Scholarship [E0183]**

Provided by the Wilhelmina McArthur Humphries Trust Fund. This scholarship is awarded to students entering any undergraduate degree program and are based on the highest admission average. Application not required.

**Donor(s):** Wilhelmina McArthur-Humphries Trust Fund

**Qualification(s):** Students entering semester 1 with a minimum 75% admission average. Preference will be given to those students from Lanark and Wellington Counties. An equal number of awards are available to students from each county. In the case of insufficient eligible applicants from one county, the awards will be given to eligible applicants from the other county.

**Amount:** 12 awards of $1,000

**P.A.J. Clarke Family Scholarship [E0381]**

Paul and Aileen Clarke and their family established the endowment for this entrance scholarship in honour of Paul's father, the late Jack Clarke, a Blenheim area farmer. Apply by letter outlining extracurricular and/or community activities, ensuring that you have completed a Need Assessment Form for Entrance Awards, and submit to Student Financial Services by April 1. Students who have applied to the University for admission will receive information on completing a Need Assessment Form for Entrance Awards from the University early in the calendar year. This award is not tenable with the President's or Lincoln Alexander Chancellor's Scholarship. Annual payments are contingent upon full-time enrolment and maintaining a minimum 70% average on the previous Fall and Winter semesters. One award of $12,000 ($3,000 annually for 4 years).

**Donor(s):** Paul and Aileen Clarke

**Qualification(s):** Students with a minimum 80% average with a record of leadership and community participation are eligible. Preference will be given to candidates from Blenheim district or Kent County and who were raised, or have worked, on a farm. Students may be contacted to provide special need circumstances if there is a short list of equal candidates.

**Amount:** 1 award of $12,000
IX. Scholarships and Other Awards, Bachelor of Arts and Science

President’s Scholarship [E0238]
The most prestigious entrance awards at the University of Guelph. Twelve scholarships of $20,000 ($5,000 annually), named to honour their donors or distinguished members of the University, are awarded to entering students of academic distinction who have made significant contributions to their schools and communities and demonstrated the potential to become leaders in society. Nomination packages are sent to Canadian high schools each fall. This award is tenable with the University of Guelph Entrance Scholarship, the University of Guelph Accessibility Scholarship or the Registrar's Entrance Scholarship, but no other Entrance Scholarships... High school principals must submit their nominations using the application material sent to the school’s Guidance Office in the fall, to the Associate Registrar, Student Financial Services, by March 1.

Donor(s): A number of President’s Scholarships have been named in honour of the following people and/or donors:

Dick Brown
Two of the scholarships, endowed by Dr. Patrick Lett are awarded to winners whose leadership qualities best reflect those demonstrated by Dick Brown in University Athletics from 1968 to 1988.

Cecil H. Franklin and Ingrid Franklin
In honour of Cecil Franklin, former Chair of the Board of Governors and Honorary Fellow of the University, the University of Guelph has named one of these twelve prestigious entrance awards to recognize his financial contribution through his estate to the President's Entrance Scholarship program.

Charles S. Humphrey
In memory of Charles S. Humphrey, a former President of Hart Chemical Company Canada Ltd. and long-time friend, the University has named one of these twelve prestigious entrance awards to recognize his financial contribution through his estate to the President's Entrance Scholarship program.

Burton C. Matthews
The University of Guelph has named one of these twelve prestigious entrance awards in memory of Jack R. Longstaffe to recognize his financial contribution through his estate to the President's Entrance Scholarship program.

Kathleen and Frederick Metcalf
Mr. and Mrs. F.T. Metcalf of Guelph have endowed this award. After a distinguished career in cable TV, broadcasting and publishing, the late Mr. Metcalf retired as President of Maclean Hunter Ltd. and Chairman of the Board of Maclean Hunter Cable Ltd. He was Honorary Chairman of Maclean Hunter Cable Ltd. and a member of the University of Guelph Heritage Board (1996).

Rol-land Farms Limited
Two of the scholarships are endowed by the four shareholders of Rol-land Farms Limited of Blenheim, Ontario, Hank, Peter, Arthur and Eric Vander Pol and their families. The Vander Pol families are generous supporters of a number of University projects and programs.

Lillian Stewart Usher
The University of Guelph has named one of these twelve prestigious entrance awards in honour of Lillian Stewart Usher a friend of the University to recognize her financial contribution through her estate to the President's Entrance Scholarship program.

Qualification(s): Entering students of academic distinction who have made significant contributions to their schools and communities and demonstrated the potential to become leaders in society.

Amount: 12 awards of $20,000

University of Guelph Entrance Scholarships [E0291]
This scholarship is based on the final admission average and program of study that is calculated by Admission Services, based on 12U, 12M, or OAC courses. These will be awarded based on the final high school grades that are submitted to the University in July. A minimum 85% final admission average guarantees an award. The scholarship will be applied directly to the student's financial account in two equal payments in the Fall and Winter Semesters. You can view the scholarship amounts at: http://www.uoguelph.ca/studfin/fall_current_merit.shtml. Application not required.

Donor(s): University of Guelph
Qualification(s): Students entering their first year of post-secondary studies for the first time and have a minimum 85% final admission average.
Amount: Several awards ranging in value from $1,500 to $3,000

University of Guelph Faculty Association Scholarship [E0292]
Award is payable at $750 per annum in the student's 1st, 3rd, and 5th semester levels, provided a cumulative average of at least a 70% is maintained. To receive the final payment, the recipient would normally be entering the 5th semester level within a period of 3 calendar years from the date of admission. Application not required.

Donor(s): University of Guelph Faculty Association
Qualification(s): Student entering an undergraduate degree program at the University of Guelph with the highest admission average who has been a resident in the County of Wellington during the previous twelve months.
Amount: 1 award of $2,250

W. Penri Morris Memorial Scholarship [E0430]
Established by the family in memory of Penri Morris, who was killed World War II action in 1944 at the age of 21. Penri grew up on the family fruit farm near Forest, Ontario. After graduating from high school, he joined the Royal Canadian Air Force and was attached to the Royal Air Force Bomber Command as a navigator at the time of this death. Awarded to the student with the highest cumulative academic performance above 75% in all courses of the last year in high school study (full-time or equivalent study). Application not required.

Donor(s): Prof. Rosalina Morris
Qualification(s): Students entering first year of any undergraduate program from North Lambton Secondary School in Forest, Ontario, in their absence, from Lambton County, and their absence, from Ontario.
Amount: 1 award of $1,000

Entrance Scholarships with Financial Need

Bill Kloppe Memorial Award [E0150]
Prioriy will be given to a student from Kitchener-Waterloo Collegiate and Vocational Institute. Apply by letter, to Student Financial Services, outlining extracurricular activities and by completing the online Entrance Financial Need Assessment Application (N.A.F) by May 1. Students should complete the Entrance Financial Need Assessment application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student).

Donor(s): Ross and Mary Lou Klopp
Qualification(s): Presented to a student entering semester 1 from the cities of Kitchener or Waterloo who has demonstrated involvement in extracurricular activities who has shown satisfactory academic performance and who has financial need.
Amount: 1 award of $500

Registrar’s Entrance Scholarships [E0384]
Established by the University of Guelph to support entering undergraduate students with identified financial need. Students should complete the online Entrance Financial Need Assessment application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student). Deadline to submit the application is May 1. Scholarship offers will be made in May. This award is not tenable with the University of Guelph Accessibility Scholarship, but can be held with all other Entrance Awards.

Donor(s): University of Guelph
Qualification(s): Students entering a full-time undergraduate program on the basis of financial need and academic merit.
Amount: 500 awards of $2,000

The Jack and Lillian MacDonald Scholarship [E0379]
Family, friends, and colleagues of Lillian MacDonald and Dr. Jack MacDonald, Vice-President, Academic, of the University of Guelph from 1986 to 1995, have established a scholarship that recognizes their commitment to increasing the accessibility of post-secondary education to aboriginal persons. Apply by letter to Student Financial Services by April 1.

Donor(s): Jack and Lillian MacDonald
Qualification(s): In the first instance, the award will be given to an entering student coming from the Grand River Polytechnical Institute (GRPI) and who has received the highest cumulative average in the Native University Access Program. If there is no entering student in any one year, the scholarship will be awarded to the in-course student who is a graduate of the GRPI who has the highest cumulative average at the University.

Amount: 1 award of $900

http://www.uoguelph.ca/studfin/fall_current_merit.shtml
### IX. Scholarships and Other Awards, Bachelor of Arts and Science

#### Entrance Awards with Financial Need

<table>
<thead>
<tr>
<th>Award</th>
<th>Description</th>
<th>Amount</th>
<th>Qualification(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rol-Land Farms Scholarships</td>
<td>Established by Rol-Land Farms, with the assistance of the Ontario government's OSOTF program, to attract entering students who might otherwise not be able to attend university for financial reasons. Students should complete the online Financial Need Assessment application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student). Deadline to submit the application is May 1.</td>
<td>1 award of $2,000</td>
<td>Outstanding entering undergraduate students with demonstrated financial need and a minimum 80% cumulative average. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).</td>
</tr>
<tr>
<td>University of Guelph Accessibility Scholarship</td>
<td>Established by the University of Guelph to support entering undergraduate students with identified financial need. Students should complete the online Entrance Financial Need Assessment application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student). Deadline to submit the application is May 1. Scholarship offers will be made in May. This award is not tenable with the Registrar's Entrance Scholarship, but can be held with all other Entrance Awards. Approximately 150 awards of $9,000 ($3,000 in year one and $2,000 in years 2, 3 and 4).</td>
<td>150 awards of $9,000</td>
<td>Students entering a full-time undergraduate program on the basis of financial need and academic excellence.</td>
</tr>
</tbody>
</table>

#### Harvey Graham Bursary [E3030]

- **Awarded to:** Class of 1939
- **Donor(s):** Harvey Graham
- **Qualification(s):** Student who has demonstrated financial need with preference given to a student who comes from a working farm. Students graduating from Lindsay C. V. I., Fenelon Falls Secondary School, or L. E. Weldon Secondary School will be considered. Each application must be accompanied by a reference letter from the Reeve of the student's home township.
- **Amount:** 1 award of $1,700

#### Rol-Land Farms Scholarships [E4519]

- **Donor(s):** Rol-Land Farms
- **Qualification(s):** Outstanding entering undergraduate students with demonstrated financial need and a minimum 80% cumulative average. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).
- **Amount:** 13 awards of $2,000

#### Harvey Graham Bursary [E3030]

- **Donor(s):** Harvey Graham, OAC '39
- **Qualification(s):** Student who has demonstrated financial need with preference given to a student who comes from a working farm. Students graduating from Lindsay C. V. I., Fenelon Falls Secondary School, or L. E. Weldon Secondary School will be considered. Each application must be accompanied by a reference letter from the Reeve of the student's home township.
- **Amount:** 1 award of $1,700

#### International Student Entrance Bursaries [E3043]

- **Qualification(s):** Students on a student visa entering an undergraduate degree program at the University of Guelph. Students who have applied to the University of Guelph will receive an application form.
- **Amount:** Several awards of $1,000, Several awards of $3,000

#### University of Guelph Accessibility Scholarship [E3038]

- **Donor(s):** The Justin Eves Learning Disability Accessibility Bursaries
- **Qualification(s):** Any entering undergraduate student that has financial need and a documented learning disability as defined by the Ontario Psychological Association.
- **Amount:** 4 awards of $3,000

#### City of Guelph 175th Anniversary Awards [I0515]

- **Donor(s):** The Guelph Community Foundation
- **Qualification(s):** Undergraduate degree students with more than 5.0 credits and less than 10.5 credits of full-time study must have maintained a cumulative 70% average or who is in the top 10% of his/her program. The recipient must have demonstrated responsibility and leadership qualities through participation in intramural or intercollegiate athletics.
- **Amount:** 12 awards of $500

#### In-course Scholarships

<table>
<thead>
<tr>
<th>Award</th>
<th>Description</th>
<th>Donor(s)</th>
<th>Qualification(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Robert Arthur Stewart Bursaries [E3272]</td>
<td>Established in memory of Mrs. Elsa H. Stewart of Pakenham, Ontario. Mr. Stewart graduated from the Ontario Agricultural College in 1933 and Mrs. Stewart from Macdonald Institute in 1932. Applicants for these bursaries should have a good academic record and an active interest in community affairs. A recommendation from the County agricultural representative or the secondary school principal is required and should be sent to Student Financial Services by April 1. Students should complete the online Entrance Financial Need Assessment application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student).</td>
<td>The Estate of Mrs. H. Stewart</td>
<td>Students from the Ontario Counties of Lanark and Renfrew, and the Regional Municipality of Ottawa-Carleton, entering the 1st semester of a degree program at the University of Guelph.</td>
</tr>
<tr>
<td>Bill Taylor Memorial Scholarship [I0280]</td>
<td>Applications to include a supporting letter from a coach or intramural supervisor. Apply to Student Financial Services by April 1.</td>
<td>AMF Canada Ltd</td>
<td>Full-time student that has completed a minimum of 7.5 credits, but no more than 17.5 credits in the Winter term who has a cumulative 80% average or who is in the top 10% of his/her program. The recipient must have demonstrated responsibility and leadership qualities through participation in intramural or intercollegiate athletics.</td>
</tr>
<tr>
<td>C.G.A. Ontario Award for Excellence [C0025]</td>
<td>Provided by the Guelph Community Foundation, in celebration of the 175th anniversary of the City of Guelph in 2002, as an investment for future generations. Apply to Student Financial Services by October 7 of the second year of study, with a letter describing student's volunteer work at CFRU.</td>
<td>Certified General Accountants Association of Ontario</td>
<td>One award of $150 plus a credit equalling one year's tuition and course fee towards the CGA program (approximate value: $2,000)</td>
</tr>
<tr>
<td>CFRU Volunteer Award [I0215]</td>
<td>Apply to the CFRU Board of Governors by April 30.</td>
<td>Station Manager, CFRU</td>
<td>Applicants must be registered or graduating from the University of Guelph and have volunteered at CFRU for at least one year. The recipients will be selected on the basis of academic performance and volunteer work at CFRU.</td>
</tr>
<tr>
<td>City of Guelph 175th Anniversary Awards [I0515]</td>
<td>Provided by the Guelph Community Foundation, in celebration of the 175th anniversary of the City of Guelph in 2002, as an investment for future generations. Apply to Student Financial Services, by October 7 of the second year of study, with a letter describing Guelph community and University community volunteer activities and extracurricular activities, a completed Need Assessment Form, and two reference letters not to exceed two pages in length from individuals familiar with the volunteer and/or community service contributions. Award may be held only once.</td>
<td>The Guelph Community Foundation</td>
<td>Undergraduate degree students with more than 5.0 credits and less than 10.5 credits of full-time study must have maintained a cumulative 70% average in all courses completed (5.0 credits or more) in the first year study and have demonstrated leadership and financial need. Applicants must be graduates of a City of Guelph high school and be Canadian citizens or permanent residents at the time of application. Selection will include equally weighted consideration of academic performance, leadership both on and off campus and financial need.</td>
</tr>
</tbody>
</table>

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Last Revision: October 18, 2005

2005-2006 University of Guelph Undergraduate Calendar
<table>
<thead>
<tr>
<th>Scholarship Name</th>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Deans' Scholarships [10323]</strong></td>
<td>Offered by the Board of Governors. Recipients will be selected by each of the College Awards Committees. Winners will be notified in the Fall semester. Application not required.</td>
<td></td>
</tr>
<tr>
<td><strong>Collins Barrow Award [10440]</strong></td>
<td>Offered by Collins Barrow, a national firm of Chartered Accountants. Awarded in the Winter semester. Application not required.</td>
<td>1 award of $1,400</td>
</tr>
<tr>
<td><strong>David F. Boyes Apiculture Scholarship [10031]</strong></td>
<td>Established in memory of David Boyes, a technician in the Apiculture Field Laboratory. Application not required.</td>
<td></td>
</tr>
<tr>
<td><strong>Evelyn Matheson Pepper Memorial Scholarship [10538]</strong></td>
<td>The daughters and grandchildren of Evelyn Matheson Pepper, a Mac '33 graduate, provide this scholarship. Application not required.</td>
<td>1 award of $150</td>
</tr>
<tr>
<td><strong>George A. Gray OAC '51 Varsity Scholarships [10487]</strong></td>
<td>Established in memory of George Gray, OAC '51, a Guelph football lineman and a great player of the game. Apply to Student Financial Services by October 7 providing a covering letter describing on- and off-campus academic and extracurricular activities and a completed Need Assessment Form. Awarded at the annual Athletics Banquet.</td>
<td></td>
</tr>
<tr>
<td><strong>Governor General’s Medal [C0044]</strong></td>
<td>Established by the Office of the Governor General of Canada. Application not required.</td>
<td>1 Silver medal</td>
</tr>
<tr>
<td><strong>Guelph Varsity Athletic Accessibility Scholarship [10518]</strong></td>
<td>Established by alumni and friends of the University of Guelph. Apply to Student Financial Services by October 7 providing a covering letter describing on- and off-campus academic and extra-curricular activities and a completed Need Assessment Form. Awarded at the annual Athletics Banquet.</td>
<td></td>
</tr>
<tr>
<td><strong>John Eccles Scholarship [10093]</strong></td>
<td>Nominations, accompanied by appropriate résumés, are to be submitted to Student Financial Services by April 1.</td>
<td>1 award of $600</td>
</tr>
<tr>
<td><strong>Kenneth W. Hammond Award [10045]</strong></td>
<td>The evaluation of the student will be based on the final essay in the &quot;Environmental Perspectives and Human Choice: 5000 Days&quot; course. The selection committee will be comprised of 4 persons: the donor, the Director of the Arboretum, the Dean of Physical and Engineering Science and the Dean of Biological Science. Application not required.</td>
<td></td>
</tr>
<tr>
<td><strong>Kip Hunter Prize [10139]</strong></td>
<td>For the best essay, written by an undergraduate in a philosophy course. The essay may be either a required assignment for a course (in which case either the student or the instructor may submit it) or it may be specially prepared for the competition. Submission of essays is to the Chair, Department of Philosophy, by the end of the 12th week of the Winter semester.</td>
<td>1 award of $1,000</td>
</tr>
<tr>
<td><strong>Leonard Conolly Exchange Student Scholarship [10446]</strong></td>
<td>Established by students, faculty, staff and friends to honour Prof. Leonard Conolly, professor of drama, Chair of the Department of Drama, 1981-88, and Associate Vice-President Academic, 1988-1992. Apply to the Centre for International Programs by April 5, for visiting during the subsequent Fall or Winter semesters.</td>
<td></td>
</tr>
</tbody>
</table>
### IX. Scholarships and Other Awards, Bachelor of Arts and Science

#### Peter Mann Award for Embryology [I2032]

**Provided by**: colleagues and friends of Dr. Mann, a scholar and teacher of Embryology from 1954–1987. Application not required.

**Donor(s)**: Colleagues and friends of Dr. Mann

**Qualification(s)**: Student from any degree program completing the course BIOM*3040 Biomedical Embryology, with the highest academic standing.

**Amount**: 1 award of $100

#### Stephanie Wilken Volunteer Award [I0449]

Established by the Wilken family in memory of Stephanie Wilken, BA 1995. Apply to Student Financial Services with letter indicating the kind and extent of volunteer activities at the Wellness Centre by October 1. Selection committee is the Senate Committee on Awards on the recommendation of the Student Wellness Educator at the Wellness Centre.

**Donor(s)**: Bev and Darlene Wilken

**Qualification(s)**: Student registered in any undergraduate degree program, who has been a volunteer for at least two semesters at the Wellness Centre. The recipient will be selected on the basis of academic performance in all courses to date and volunteer work at the Wellness Centre.

**Amount**: 1 award of $1,000

#### The Jack and Lillian MacDonald Scholarship [E0379]

Family, friends, and colleagues of Lillian MacDonald and Dr. Jack MacDonald, Vice-President, Academic, of the University of Guelph from 1986 to 1995, have established a scholarship that recognizes their commitment to increasing the accessibility of post-secondary education to aboriginal persons. Apply by letter to Student Financial Services by April 1.

**Donor(s)**: Jack and Lillian MacDonald

**Qualification(s)**: In the first instance, the award will be given to an entering student coming from the Grand River Polytechnical Institute (GRPI) and who has received the highest cumulative average in the Native University Access Program. If there is no entering student in any one year, the scholarship will be awarded to the in-course student who is a graduate of the GRPI who has the highest cumulative average at the University.

**Amount**: 1 award of $900

#### Thomas H. Peters Scholarship [I0233]

Application not required.

**Donor(s)**: Friends and associates of Thomas H. Peters

**Qualification(s)**: Student in any academic program of the University who has completed courses in Land Reclamation (e.g. CROP*2280, SOIL*3200), with a minimum 10.0 credits completed. Applicants must have a minimum of 70% cumulative average and have demonstrated an interest and aptitude in the area of crops and land reclamation.

**Amount**: 1 award of $250

#### Toronto District Beekeeper’s Association Scholarship [I0285]

A scholarship is offered by the Toronto District Beekeepers Association in memory of the late Hugh McLeod, past chair of the Association. Application not required.

**Donor(s)**: Mr. Jack Robinson

**Qualification(s)**: The recipient will have good academic standing, have participated in extracurricular activities, and demonstrated a keen interest in beekeeping.

**Amount**: 1 award of $500

#### United Steelworkers LU4120 Scholarship [I0293]

Apply to Student Financial Services, by January 31.

**Donor(s)**: United Steelworkers LU4120

**Qualification(s)**: Student who is a member or former member, or who is from the immediate family of a member of United Steelworkers LU 4120, and who is entering semester 2, 3, or 4 of a degree or diploma program in the Winter semester. If there is more than one eligible candidate, the award will go to the one who has attained the highest relative class standing in his or her previous full-time semester, provided that a minimum of 70% standing is obtained.

**Amount**: 1 award of $800

#### Van Stralen and Van Der Hoeven Memorial Scholarship [I0296]

Application will be made by nominations by 4 currently registered students forwarded to Student Financial Services by April 1. Presentations are made in the Fall semester.

**Donor(s)**: Mr. & Mrs. J. Van Stralen & family and Mr. & Mrs. Hans Van Der Hoeven & family

**Qualification(s)**: Students that have completed a minimum of 2.0 credits, but not more than 7.5 in the Winter term in any degree program who have obtained a minimum of 70% standing. Selection will be made on the basis of participation in university activities and in the student's home community as well as qualities of leadership, ambition and initiative.

**Amount**: 2 awards of $400

#### W.C. Winegard Medal [C0311]

The W.C. Winegard Medal is the most prestigious graduating award of the University of Guelph. One student will be nominated by each College Awards Committee. The Senate Awards Committee will make the final selection and the medal will be awarded at Convocation in June. Application not required.

**Donor(s)**: The Board of Governors of the University

**Qualification(s)**: Graduating student who excels both academically and in extracurricular activities.

**Amount**: 1 Gold medal

#### W.N. Vaughan Medal [C0299]

Prospective candidates will be nominated by Senators and the medal winner will be chosen by a committee selected by the Striking Committee. The medal will be awarded at Convocation in June. Application not required.

**Donor(s)**: Friends of Walter N. Vaughan

**Qualification(s)**: Student senator who has high academic standing and who has made a substantial contribution to student life and to the University, particularly through involvement in and commitment to Senate activities.

**Amount**: 1 Medal

#### Waterloo-Wellington CA Association Award [I0367]


**Donor(s)**: Waterloo-Wellington Chartered Accountants Association

**Qualification(s)**: Student who achieves the highest academic standing in the course AGEC*3330, Intermediate Accounting.

**Amount**: 1 award of $100

### In-course Scholarships with Financial Need

#### 3M Canada Scholarships [I0564]

Provided by 3M Canada. Apply to Student Financial Services by October 7 with a completed Financial Need Assessment Application.

**Donor(s)**: 3M Canada Company

**Qualification(s)**: Students entering Year 4 (ie. having completed a minimum of 15.0 credits) with demonstrated financial need and high academic achievement.

**Amount**: 2 awards of $1,000

#### Eleanor Morgan & Bill Archibald Scholarships [I4540]

The family of Eleanor and Bill Archibald, with the assistance of the Ontario government's OSOTF program, provide this scholarship in memory of their parents. Apply with a completed Need Assessment Form and a letter outlining community involvement to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

**Donor(s)**: The Family of Eleanor & Bill Archibald

**Qualification(s)**: Students registered in any program with a minimum of 5.0 credits who have cumulative 70% average, has demonstrated community involvement, and financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (See General Statements on Awards).

**Amount**: 1 award of $1,000
Erin Demers Memorial Scholarship [10406]
The family and friends of Erin Demers, a first-year student at the University of Guelph who was tragically killed in a car accident in 1996, have established this scholarship in her memory. Apply to Student Financial Services by April 1 with a completed Need Assessment Form, along with one supporting reference letter from a Residence Assistant, Residence Manager, or Residence Officer.

**Donor(s):** Family and friends of Erin Katrina Demers

**Qualification(s):** A student who has resided in an on-campus residence during the first semester and who has a cumulative average of 70%. This award is payable in the second year (i.e., completed 5.0 course credits) of study. Preference will be given to students with demonstrated financial need and who have participated significantly in extracurricular activities.

**Amount:** 1 award of $1,000

Euclid-Hitachi Scholarships [14517]
Established by Euclid-Hitachi of Canada Ltd., with the assistance of the Ontario government’s OSOTF program, to assist students with financial need to continue their studies as full-time students. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

**Donor(s):** Euclid-Hitachi of Canada Ltd.

**Qualification(s):** Students with a minimum cumulative average of 70% with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 2 awards of $1,500

Elizabeth Burton Bursaries [13503]
Mrs. Elizabeth Burton, with the assistance of the Ontario government’s OSOTF program, provides bursaries to students with demonstrated financial need. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD. A number of awards totalling $2,900.

**Donor(s):** Mrs. Elizabeth Burton

**Qualification(s):** Students in second, third or fourth year with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** Several awards of $2,900

Burnbrae Farms Bursaries [13525]
Established by Burnbrae Farms, with the assistance of the Ontario government’s OSOTF program to assist students with financial need to continue their studies as full-time students. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

**Donor(s):** Burnbrae Farms

**Qualification(s):** Full-time students with demonstrated financial need. Preference will be given to students with a demonstrated interest in poultry science. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 2 awards of $1,500

Guelph Student Assistance Program [13056]
These bursaries have been established and approved by undergraduate students through student referendum to assist undergraduate and University of Guelph campus diploma students in financial need. Apply to Student Financial Services with a completed Need Assessment Form by October 7. Typically, awarded in the Winter semester.

**Donor(s):** Undergraduate Students

**Qualification(s):** Full-time undergraduate students registered in any degree program with demonstrated financial need. Preference will be given to students who are not eligible for provincial and/or federal assistance programs such as Ontario Student Assistance Program (OSAP) and/or Canada Student Loan Program (CSLP).

**Amount:** Several awards of varying amounts up to $1,000
### IX. Scholarships and Other Awards, Bachelor of Arts and Science

<table>
<thead>
<tr>
<th>Bursary Name</th>
<th>Qualification(s)</th>
<th>Donor(s)</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ontario Co-operatives R.P. Forshaw Bursary</strong></td>
<td>Have demonstrated financial need. Preference will be given to students from Wellington County.</td>
<td>The Co-operatives, Credit Unions, friends and associates of Prof. R.P. Forshaw</td>
<td>1 award of $400</td>
</tr>
<tr>
<td><strong>University of Guelph Bursary</strong></td>
<td>Have demonstrated financial need. Preference will be given to International students.</td>
<td>University of Guelph</td>
<td>Several awards of varying amounts</td>
</tr>
<tr>
<td><strong>Robert Auger Humanitarian Bursary</strong></td>
<td>Have demonstrated financial need. Preference will be given to International students.</td>
<td>Robert Auger</td>
<td>Several awards of $500</td>
</tr>
<tr>
<td><strong>University of Guelph Child Care Bursary</strong></td>
<td>Have demonstrated financial need. Preference will be given to International students.</td>
<td>University of Guelph</td>
<td>Several awards of $500</td>
</tr>
<tr>
<td><strong>University of Guelph International Bursary</strong></td>
<td>Full-time International students who have demonstrated financial need.</td>
<td>University of Guelph</td>
<td>Several awards of $500</td>
</tr>
</tbody>
</table>

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#### International Emergency Medical Aid Assistance [13059]

The University of Guelph provides support to International undergraduate students that are faced with unexpected, or unforeseen financial shortfalls due to a medical issue not covered by UHIP or the Student Dental/Medical insurance plans. Students should apply to the International Student Advisor, in the Centre for International Programs office, by completing an International Student Financial Need Assessment Form and submitting documentation to support the medical issue. These bursaries are awarded on an on-going basis.

**Donor(s):** University of Guelph

**Amount:** Several awards of varying amounts

#### International Student Bursaries [13009]

Mrs. Norma L. Valeriote has made available a number of bursaries. Apply to the International Student Advisor.

**Donor(s):** Mrs. Norma L. Valeriote

**Amount:** Several awards of $500

#### Irvine and Grace Black Memorial Bursary [13051]

Established in memory of Irvine and Grace Black, by friends and family to recognize their many contributions to young people. Irvine, a well-known sheep breeder, was a judge at College Royal and the Royal Winter Fair for over fifty years, and Grace was active in the Women's Institute and the Fergus Fall Fair. Apply to Student Financial Services with a completed Need Assessment Form by October 7. Awarded in the Winter semester. ACCESS AWARD.

**Donor(s):** Family and friends of Irvine and Grace Black

**Amount:** 1 award of $500

#### Mary I. Whitelock Bursaries [13524]

Established by the estate of Mary I. Whitelock, a friend of the University, with the assistance of the Ontario government's OSOTF program, to assist students who wish to study full-time but who need financial support to do so. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD.

**Donor(s):** Estate of Mary I. Whitelock

**Amount:** 13 awards of $2,000

#### Ontario Co-operatives R.P. Forshaw Bursary [13013]

The Co-operatives, Credit Unions, friends and associates of Prof. R.P. Forshaw have established this bursary. Apply to Student Financial Services with a completed Need Assessment Form by October 7. Awarded in the Winter semester.

**Donor(s):** The Co-operatives, Credit Unions, friends and associates of Prof. R.P. Forshaw

**Amount:** 1 award of $400
### University of Guelph Undergraduate In-Course Bursaries (MET-TR-UG) [I3037]

The University of Guelph offers in-course bursaries to students who have demonstrated financial need. Apply to Student Financial Services, with a completed Need Assessment Form by October 7. Awarded in the Winter semester.

**Donor(s):** University of Guelph  
**Qualification(s):** Ontario students registered for full-time studies (as defined by OSAP) in a degree program with demonstrated financial need and a minimum of 2.0 course credits completed.  
**Amount:** Several awards ranging in value from $100 to $3,000

### University of Guelph Undergraduate In-Course Bursaries (NON OSAP TR) [I3047]

The University of Guelph offers in-course bursaries to students who have demonstrated financial need. Apply to Student Financial Services, with a completed Need Assessment Form by October 7. Awarded in the Winter semester.

**Donor(s):** University of Guelph  
**Qualification(s):** Undergraduate students registered for full-time studies (as defined by OSAP) in a degree program with demonstrated financial need and a minimum of 2.0 course credits completed.  
**Amount:** Several awards to a maximum of $800

### University Student Assistance Program [I3057]

The University of Guelph offers in-course bursaries to students who have demonstrated financial need. Apply to Student Financial Services, with a completed Need Assessment Form by October 7.

**Donor(s):** University of Guelph  
**Qualification(s):** Full-time undergraduate and graduate students who have financial need.  
**Amount:** Several varies

### University Police Bursaries [I3019]

The University Police have made available a number of bursaries. Apply to Student Financial Services with a completed Need Assessment Form by October 7.

**Donor(s):** The University Police  
**Qualification(s):** Full-time undergraduate and graduate students who have financial need.  
**Amount:** Several varies

### Richard and Sophia Hungerford Undergraduate Travel Scholarships [T4508]

The estate of Richard and Sophia Hungerford, with the assistance of the Ontario government's OSOTF program, has established an endowment to provide travel scholarships to undergraduate and graduate students with demonstrated financial need who wish to study in developing countries, or attend conferences on development. Apply to Student Financial Services with a description of the intended travel, an estimate of the travel costs, and a completed Need Assessment Form at least one month prior to departure. Deadline dates are June 1 for Fall travel, October 1 for Winter travel, and February 1 for Summer travel. ACCESS AWARD.

**Donor(s):** The Estate of Richard Hungerford  
**Qualification(s):** Registered undergraduate students with demonstrated financial need who have at least a 70% cumulative average in the last 2 semesters of full-time equivalent study are eligible. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).  
**Amount:** Several awards of varying amounts to a maximum of $1,000

### University of Guelph Travel Scholarships [T0421]

The University of Guelph, through the sale of Guelph London House, has established an endowment to provide travel scholarships to undergraduate and graduate students who wish to study outside of Canada but need financial support to do so. A total of $35,000 is available in the fund. Apply to Student Financial Services with a completed Travel Grant Application and Financial Need Assessment Form by October 1 for Winter travel, February 1 for Spring travel, and June 1 for Fall travel.

**Donor(s):** University of Guelph  
**Qualification(s):** Registered undergraduate and graduate students that have completed 5.0 credits with demonstrated financial need who have a minimum 70% cumulative average in the last two semesters of full-time equivalent study are eligible to apply. The value of the award will depend on the assessed financial need. The scholarship can cover additional costs of travelling outside of Canada including: airfare, administrative costs, and differential costs of accommodation.  
**Amount:** Several up to $1,000
# Bachelor of Bio-Resource Management Degree

Please refer to the General Statement on Awards for:

- Award Eligibility
- ACCESS Awards Eligibility
- Ontario Student Opportunity Trust Fund (OSOTF) Program
- How Awards are Paid

The University reserves the right to amend awards subject to the availability of funds.

## Entrance Scholarships

### Amos & William Lowe Memorial Scholarship [E0158]

Endowed by the late William B. Lowe of Fort Francis, Ontario. Preference will be given first to eligible students from the district of Rainy River, then from the district of Kenora or Thunder Bay, and finally from the remaining districts of Northern Ontario. Application not required. Two awards of $1,250 paid in two installments of $625.

**Donor(s):** William B. Lowe and Amos Edgar Lowe  
**Qualification(s):** Student entering any of the undergraduate degree programs of the Ontario Agricultural College.

**Amount:** 2 awards of $1,250

### Angelo and Frank Agro Undergraduate Scholarship [E0520]

Provided by the Agro Scholarship Fund. Apply by April 1 to Student Financial Services, including a covering letter describing your activities within 4H (details of 4H club membership, creativity in support of 4H activities, participation in activities and events, volunteer leadership roles, etc.) and a letter of reference from a 4H club official attesting to your involvement. $4,000 ($1,000 annually for four years).

**Donor(s):** The Frank Agro Estate  
**Qualification(s):** Full-time students entering semester 1 who have attained a minimum 80% admission average in their graduating year from high school. The scholarship will be awarded to the eligible student demonstrating the greatest past or continuing involvement with 4H activities. Recipients must maintain full-time studies and at least a 70% program average each year for continuation of the award.

**Amount:** 1 award of $4,000

### Board of Governors' Scholarships [E0317]

The scholarship will be paid in eight equal installments with the first and second payments payable shortly after registration in semesters 1 and 2. The 3rd to 8th payments are contingent upon obtaining a minimum average of 80% over the previous two semesters of full-time study. Students who fail to qualify for a payment may re-qualify by subsequently obtaining an 80% or better average over the previous two semesters of full-time study. Application not required. Twenty-five awards of $8,000 ($2,000 annually for 4 years).

**Donor(s):** Board of Governors  
**Qualification(s):** Outstanding students entering semester 1  
**Amount:** 25 awards of $8,000

### Elite Swine Entrance Scholarship [E0532]

This award is provided by Elite Swine Inc. to assist students entering an OAC undergraduate Program. High schools will forward nominations to the OAC Awards Committee by September 15.

**Donor(s):** Elite Swine Inc.  
**Qualification(s):** High school graduates who have applied to OAC undergraduate programs, based on admission average, contributions to their schools and communities and on their potential to become leaders in society. Preference will be given to students with a strong interest in animal science, particularly swine production.

**Amount:** 5 awards of $1,000

### Gordon W. Innes Scholarship [E0140]

Established by the Gordon W. "Sparky" Innes Scholarship Fund Committee of the Woodstock Agricultural Society. Application not required.

**Donor(s):** Gordon W. "Sparky" Innes Scholarship Fund Committee of the Woodstock Agricultural Society  
**Qualification(s):** Student from Oxford County with the highest admission average.

**Amount:** 1 award of $1,400

## International Student Entrance Scholarships [E0408]

In support of the University's strategic direction of internationalism, entrance scholarships are available each Fall semester to the top international students entering their first semester of an undergraduate degree program at the University of Guelph. Applicants must submit all relevant documentation for admission consideration by March 1 to be considered for a scholarship. These scholarships are awarded on a competitive basis. Application not required.

**Donor(s):** University of Guelph  
**Qualification(s):** Students on a “student visa” entering an undergraduate degree program at the University of Guelph with a record of high academic achievement and extracurricular involvement, and studying full-time. This award is offered for the first year of study.

**Amount:** Several awards ranging in value from $500 - $6,000

### J.D. MacLachlan Scholarship [E0170]

Provided by the family of J.D. MacLachlan. Application not required.

**Donor(s):** The J.D. MacLachlan Trust  
**Qualification(s):** Student entering the University with the highest admission average.  
**Amount:** 1 award of $1,500

### Lincoln Alexander Chancellor's Scholarship [E0493]

These scholarships, named to honour Lincoln Alexander, Chancellor of the University of Guelph and former Lieutenant Governor of Ontario, on his 80th birthday, are awarded to academically distinguished entering students who are Aboriginal, persons with a disability or members of a racial minority, and who have made significant contributions to their schools and communities and demonstrated the potential to become leaders in society. These scholarships are intended to enhance student diversity and are amongst the most prestigious entrance awards at the University of Guelph. Nominations are made by high school principals and are to be sent to the Associate Registrar, Student Financial Services, by March 1. Two awards of $20,000 ($5,000 annually for 4 years).

**Donor(s):** Many Donors  
**Qualification(s):** Entering students of academic distinction who are Aboriginal, persons with a disability or members of a racial minority, and who have made significant contributions to their schools and communities and demonstrated the potential to become leaders in society. Financial need may be taken into consideration.

**Amount:** 2 awards of $20,000

### McArthur-Humphries Scholarship [E0183]

Provided by the Wilhelmina McArthur Humphries Trust Fund. This scholarship is awarded to students entering any undergraduate degree program and are based on the highest admission average. Application not required.

**Donor(s):** Wilhelmina McArthur-Humphries Trust Fund  
**Qualification(s):** Students entering semester 1 with a minimum 75% admission average. Preference will be given to those students from Lanark and Wellington Counties. An equal number of awards are available to students from each county. In the case of insufficient eligible applicants from one county, the awards will be given to eligible applicants from the other county.

**Amount:** 12 awards of $1,000

### OAC Entrance Scholarships for Bachelor of Bio-Resource Management (BBRM) [E0566]

Entering students should apply to the OAC Awards Committee, by application, outlining their career aspirations, their extracurricular and community involvement, and their leadership accomplishments by October 1. Contact the OAC Awards Office for an application.

**Donor(s):** OAC Alumni Foundation  
**Qualification(s):** Students entering the first semester of the Bachelor of Bio-Resource Management program.

**Amount:** 2 awards of $1,500
P.A.J. Clarke Family Scholarship [E0238]
Paul and Aileen Clarke and their family established the endowment for this entrance scholarship in honour of Paul's father, the late Jack Clarke, a Blenheim area farmer. Apply by letter outlining extracurricular and/or community activities, ensuring that you have completed a Need Assessment Form for Entrance Awards, and submit to Student Financial Services by April 1. Students who have applied to the University for admission will receive information on completing a Need Assessment Form for Entrance Awards from the University early in the calendar year. This award is not tenable with the President's or Lincoln Alexander Chancellor's Scholarship. Annual payments are contingent upon full-time enrolment and maintaining a minimum 70% average on the previous Fall and Winter semesters. One award of $12,000 ($3,000 annually for 4 years).

Donor(s): Paul and Aileen Clarke
Qualification(s): Students with a minimum 80% average with a record of leadership and community participation are eligible. Preference will be given to candidates from Blenheim district or Kent County and who were raised, or have worked, on a farm. Students may be contacted to provide special need circumstances if there is a short list of equal candidates.
Amount: 1 award of $12,000

President's Scholarship [E0238]
The most prestigious entrance awards at the University of Guelph. Twelve scholarships of $20,000 ($5,000 annually), named to honour their donors or distinguished members of the University, are awarded to entering students of academic distinction who have made significant contributions to their schools and communities and demonstrated the potential to become leaders in society. Nomination packages are sent to Canadian high schools each fall. This award is tenable with the University of Guelph Entrance Scholarship, the University of Guelph Accessibility Scholarship or the Registrar's Entrance Scholarship, but no other Entrance Scholarships. High school principals must submit their nominations using the application material sent to the school's Guidance Office in the fall, to the Associate Registrar, Student Financial Services, by March 1.

Donor(s): A number of President's Scholarships have been named in honour of the following people and/or donors:
Dick Brown
Two of the scholarships, endowed by Dr. Patrick Lett are awarded to winners whose leadership qualities best reflect those demonstrated by Dick Brown in University Athletics from 1968 to 1988.
Cecil H. Franklin and Ingrid Franklin
In honour of Cecil Franklin, former Chair of the Board of Governors and Honorary Fellow of the University, the University of Guelph has named one of these twelve prestigious entrance awards to recognize his financial contributions and volunteer support to the President's Entrance Scholarship program.
Charles S. Humphrey
In memory of Charles S. Humphrey, a former President of Hart Chemical Company Canada Ltd. and long-time friend, the University has named one of these twelve prestigious entrance awards to recognize his financial contribution through his estate to the President's Entrance Scholarship program.
Jack R. Longstaffe
The University of Guelph has named one of these twelve prestigious entrance awards in memory of Jack R. Longstaffe to recognize his financial contribution through his estate to the President's Entrance Scholarship program.
Burton C. Matthews
The University of Guelph has named one of these twelve prestigious entrance awards in honour of Burton C. Matthews to recognize his insight and leadership in establishing the President's Entrance Scholarship program.
Kathleen and Frederick Metcalf
Mr. and Mrs. F.T. Metcalf of Guelph have endowed this award. After a distinguished career in cable TV, broadcasting and publishing, the late Mr. Metcalf retired as President of Maclean Hunter Ltd. and Chairman of the Board of Maclean Hunter Cable Ltd. He was Honorary Chairman of Maclean Hunter Cable Ltd. and a member of the University of Guelph Heritage Board (1996). 
Rol-land Farms Limited
Two of the scholarships are endowed by the four shareholders of Rol-land Farms Limited of Blenheim, Ontario, Hank, Peter, Arthur and Eric Vander Pol and their families. The Vander Pol families are generous supporters of a number of University projects and programs.
Lillian Stewart Usher
The University of Guelph has named one of these twelve prestigious entrance awards in honour of Lillian Stewart Usher a friend of the University to recognize her financial contribution through her estate to the President's Entrance Scholarship program.
Qualification(s): Entering students of academic distinction who have made significant contributions to their schools and communities and demonstrated the potential to become leaders in society.
Amount: 12 awards of $20,000

The Jack and Lillian MacDonald Scholarship [E0379]
Family, friends, and colleagues of Lillian MacDonald and Dr. Jack MacDonald, Vice-President, Academic, of the University of Guelph from 1986 to 1995, have established a scholarship that recognizes their commitment to increasing the accessibility of post-secondary education to aboriginal persons. Apply by letter to Student Financial Services by April 1.
Donor(s): Jack and Lillian MacDonald
Qualification(s): In the first instance, the award will be given to an entering student coming from the Grand River Polytechnic Institute (GRPI) and who has received the highest cumulative average in the Native University Access Program. If there is no entering student in any one year, the scholarship will be awarded to the in-course student who is a graduate of the GRPI who has the highest cumulative average at the University.
Amount: 1 award of $900

University of Guelph Entrance Scholarships [E0291]
This scholarship is based on the final admission average and program of study that is calculated by Admission Services, based on 12U, 12M, or OAC courses. These will be awarded based on the final high school grades that are submitted to the University in July. A minimum 85% final admission average guarantees an award. The scholarship will be applied directly to the student’s financial account in two equal payments in the Fall and Winter Semesters. You can view the scholarship amounts at: http://www.uoguelph.ca/studfin/fall_current_merit.shtml. Application not required.
Donor(s): University of Guelph
Qualification(s): Students entering their first year of post-secondary studies for the first time and have a minimum 85% final admission average.
Amount: Several awards ranging in value from $1,500 to $3,000

University of Guelph Faculty Association Scholarship [E0292]
This scholarship is based on the National Merit Scholarship Program Recognizing Academic Excellence, provided a cumulative average of at least a 70% is maintained. To receive the final payment, the recipient would normally be entering the 5th semester level within a period of 3 calendar years from the date of admission. Application not required.
Donor(s): University of Guelph Faculty Association
Qualification(s): A student entering an undergraduate degree program at the University of Guelph with the highest admission average who has been a resident of the University of Guelph for at least one term.
Amount: 1 award of $2,250

W. Penri Morris Memorial Scholarship [E0430]
Established by the family in memory of Penri Morris, who was killed World War II action in 1944 at the age of 21, Penri grew up on the family fruit farm near Forest, Ontario. After graduating from high school, he joined the Royal Canadian Air Force and was attached to the Royal Air Force Bomber Command as a navigator at the time of his death. Awarded to the student with the highest cumulative academic performance above 75% in all courses of the last year in high school study (full-time or equivalent study). Application not required.
Donor(s): Prof. Rosalina Morris
Qualification(s): Students entering first year of any undergraduate program from North Lambton Secondary School in Forest, Ontario, in their absence, from Lambton County, and their absence, from Ontario.
Amount: 1 award of $1,000

Entrance Scholarships with Financial Need
Bill Klopp Memorial Award [E0150]
Priority will be given to a student from Kitchener-Waterloo Collegiate and Vocational Institute. Apply by letter to, Student Financial Services, outlining extracurricular activities and by completing the online Entrance Financial Need Assessment Application (N.A.F) by May 1. Students should complete the Entrance Financial Need Assessment application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student).
Donor(s): Ross and Mary Lou Klopp
Qualification(s): Presented to a student entering semester 1 from the cities of Kitchener or Waterloo who has demonstrated involvement in extracurricular activities who has shown satisfactory academic performance and who has financial need.
Amount: 1 award of $500
### IX. Scholarships and Other Awards, Bachelor of Bio-Resource Management Degree

#### Fred Hindle Bursary [E3500]
- **Amount:** 1 award of $1,700
- **Qualification(s):** Students entering a full-time undergraduate program on the basis of financial need and academic merit.

#### University of Guelph Accessibility Scholarship [E3038]
- **Amount:** 1 award of $6,000
- **Qualification(s):** Students entering a full-time undergraduate program on the basis of financial need and academic merit.

### In-course Scholarships

#### Bill Taylor Memorial Scholarship [I0280]
- **Amount:** 4 awards of $3,000
- **Qualification(s):** Students who have completed a minimum of 7.5 credits in Financial Accounting AGEC*2220; Management Accounting AGEC*3330; and Intermediate Accounting AGEC*3330.

#### C.G.A. Ontario Award for Excellence [C0025]
- **Amount:** 1 award of $900
- **Qualification(s):** Graduating student who has a minimum cumulative average of 77% in Financial Accounting AGEC*2220; Management Accounting AGEC*2230; and Intermediate Accounting AGEC*3330.

### International Student Entrance Bursaries [E3043]
- **Amount:** Several awards of $1,000, Several awards of $3,000
- **Qualification(s):** Students on a student visa entering an undergraduate degree program at the University of Guelph.

### Rol-Land Farms Scholarships [E4519]
- **Amount:** 150 awards of $9,000
- **Qualification(s):** Students entering a full-time undergraduate program on the basis of financial need and academic excellence.

### Entrance Awards with Financial Need

#### Fred Hindle Bursary [E3500]
- **Amount:** 1 award of $6,000 ($1,500 annually for 4 years)
- **Qualification(s):** An entering O.A.C. degree student who has demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

#### Harvey Graham Bursary [E3030]
- **Amount:** 1 award of $1,700
- **Qualification(s):** Students who have demonstrated financial need with preferences given to a student who comes from a working farm. Students graduating from Lindsay C. V. I., Fenelon Falls Secondary School, or L. E. Weldon Secondary School will be considered. Each application must be accompanied by a reference letter from the Reeve of the student's home township.

#### Canadian Agri-Marketing Association (Ontario) Scholarship [I0541]
- **Amount:** 1 award of $1,500
- **Qualification(s):** Students who have completed a minimum of 10.0 credits with a minimum cumulative average of 70% who are members of OAC and the Ag Ec & Biz Society. Selection will be based on a combination of academic achievement and demonstrated interest in agri-marketing.

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**Registrars Entrance Scholarships [E0384]**

Established by the University of Guelph to support entering undergraduate students with identified financial need. Students should complete the online Entrance Financial Need Assessment application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student). Deadline to submit the application is May 1. Scholarship offers will be made in May. This award is not tenable with the University of Guelph Accessibility Scholarship, but can be held with all other Entrance Awards.

**Donor(s):** University of Guelph

**Qualification(s):** Students entering a full-time undergraduate program on the basis of financial need and academic merit.

**Amount:** 500 awards of $2,000

**Rol-Land Farms Scholarships [E4519]**

Established by Rol-Land Farms, with the assistance of the Ontario government's OSOTF program, to attract entering students who might otherwise not be able to attend university for financial reasons. Students should complete the online Financial Need Assessment application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student). Deadline to submit the application is May 1. ACCESS AWARD

**Donor(s):** Rol-Land Farms

**Qualification(s):** Outstanding entering undergraduate degree students with demonstrated financial need and a minimum 80% cumulative average. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 13 awards of $2,000

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**In-course Scholarships**

#### International Student Entrance Bursaries [E3043]

In support of the University's strategic direction of internationalism, entrance bursaries are available each fall to assist some of our international students entering an undergraduate degree program at the University of Guelph. Students who have applied to the University of Guelph will receive an application form.

**Donor(s):** University of Guelph

**Qualification(s):** Students on a student visa entering an undergraduate degree program at the University of Guelph with demonstrated financial need.

**Amount:** Several awards of $1,000, Several awards of $3,000

#### Justine Eves Learning Disability Accessibility Bursaries [E3057]

In memory of Justine Eves who was dyslexic and died tragically in an automobile accident in 1995, the Justine Eves Foundation together with the University of Guelph provides these awards to entering undergraduate students who have a learning disability and who has demonstrated financial need. Students should complete the online Entrance Financial Need Assessment application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student). Deadline to submit the application is May 1.

**Donor(s):** Justin Eves Foundation

**Qualification(s):** Any entering undergraduate student that has financial need and a documented learning disability as defined by the Ontario Psychological Association.

**Amount:** 4 awards of $3,000

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**Robert Arthur Stewart Bursaries [E3272]**

Established in memory of Mrs. Elsa H. Stewart of Pakenham, Ontario. Mr. Stewart graduated from the Ontario Agricultural College in 1933 and Mrs. Stewart from Macdonald Institute in 1932. Applicants for these bursaries should have a good academic record and an active interest in community affairs. A recommendation from the County agricultural representative or the secondary school principal is required and should be sent to Student Financial Services by April 1. Students should complete the online Entrance Financial Need Assessment application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student).

**Donor(s):** The Estate of Mrs. H. Stewart

**Qualification(s):** Students from the Ontario Counties of Lanark and Renfrew, and the Regional Municipality of Ottawa-Carleton, entering the 1st semester of a degree program at the University of Guelph.

**Amount:** 12 awards of $500

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**Bill Taylor Memorial Scholarship [I0280]**

Applications to include a supporting letter from a coach or intramural supervisor. Apply to Student Financial Services by April 1.

**Donor(s):** AMF Canada Ltd.

**Qualification(s):** Full-time student that has completed a minimum of 7.5 credits, but no more than 17.5 credits in the Winter term who has a cumulative 80% average or who is in the top 10% of his/her program. The recipient must have demonstrated responsibility and leadership qualities through participation in intramural or intercollegiate athletics.

**Amount:** 1 award of $900

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**Canadian Agri-Marketing Association (Ontario) Scholarship [I0541]**

Provided by the Canadian Association of Agri-Marketing Association (Ontario). Apply to the OAC awards Committee by April 1 with a summary of participation in the Ag Ec & Biz Society and in agri-marketing initiatives as well as a letter of recommendation from a faculty member.

**Donor(s):** Canadian Agri-Marketing Association (Ontario)

**Qualification(s):** Students who have competed a minimum of 10.0 credits with a minimum cumulative average of 70% who are members of OAC and the Ag Ec & Biz Society. Selection will be based on a combination of academic achievement and demonstrated interest in agri-marketing.

**Amount:** 1 award of $1,500
<table>
<thead>
<tr>
<th>Award Name</th>
<th>Amount</th>
<th>Qualification(s)</th>
<th>Donor(s)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collins Barrow Award [I0040]</td>
<td>1 award of $1,400</td>
<td>Student registered in the Fall semester who achieves high academic standing</td>
<td>Collins Barrow, a national firm of Chartered</td>
<td>Provided by Collins Barrow, a national firm of Chartered Accountants. Awarded in the Winter semester. Application not required.</td>
</tr>
<tr>
<td>Class of 1970 Scholarship [I0424]</td>
<td>1 award of $600</td>
<td>Student registered in the Fall semester who achieves high academic standing</td>
<td>Class 1970: 25th Reunion Gift</td>
<td>Established by the Silver Anniversary celebrants to commemorate the 25th anniversary of the University Class of 1970. This award rotates among all six colleges on the main campus. The appropriate College Award Committee selects the candidate each Fall semester and the candidate is announced each October. Application not required.</td>
</tr>
<tr>
<td>Guelph Varsity Athletic Accessibility Scholarship [I0518]</td>
<td>2 awards of $250</td>
<td>Undergraduate degree or diploma students who are members of varsity teams and in</td>
<td>Alumni and friends of the University of Guelph</td>
<td>Established by alumni and friends of the University of Guelph. Apply to Student Financial Services by October 7 providing a covering letter describing on- and off-campus activities and a completed Need Assessment Form. Awarded at the annual Athletics Banquet.</td>
</tr>
<tr>
<td>John Eccles Scholarship [I0093]</td>
<td>1 award of $2,000</td>
<td>Student registered in any degree program who has attained at least 80% average in</td>
<td>The Apiculture Club</td>
<td>Provided by Mr. Joerg Leiss, OAC '63. Selection will be based on the highest cumulative average (of at least 75%) in the horticultural (HORT) courses normally taken in year 1 and 2. Application not required.</td>
</tr>
<tr>
<td>Joerg and Franzis Leiss Horticultural Scholarship [I0565]</td>
<td>1 award of $2,000</td>
<td>Student registered in the Fall semester who achieves high academic standing</td>
<td>Joerg and Franzis Leiss Horticultural Scholarship [I0565]</td>
<td>Established in memory of David Boyes a technician in the Apiculture Field Laboratory. Application not required.</td>
</tr>
<tr>
<td>Student who achieves the highest grade in the course FRHD*3200</td>
<td>1 award of $2,000</td>
<td>Student registered in the Fall semester who achieves high academic standing</td>
<td>The Guelph Community Foundation</td>
<td>Established by alumni and friends of the University of Guelph. Apply to Student Financial Services by October 7 providing a covering letter describing on- and off-campus activities and a completed Need Assessment Form. Awarded at the annual Athletics Banquet.</td>
</tr>
<tr>
<td>Student Housing Services</td>
<td>1 award of $600</td>
<td>Full-time student registered in semester 2, 3, 4, 5 or 6 and living in residence</td>
<td>Student Housing Services</td>
<td>Provided by Mr. Joerg Leiss, OAC '63. Selection will be based on the highest cumulative average (of at least 75%) in the horticultural (HORT) courses normally taken in year 1 and 2. Application not required.</td>
</tr>
<tr>
<td>FRAN.</td>
<td>1 award of $1,000</td>
<td>Student registered in the Fall semester who achieves high academic standing</td>
<td>The Guelph Varsity Athletic Accessibility Scholarship [I0518]</td>
<td>Established by alumni and friends of the University of Guelph. Apply to Student Financial Services by October 7 providing a covering letter describing on- and off-campus activities and a completed Need Assessment Form. Awarded at the annual Athletics Banquet.</td>
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<tr>
<td>Student registered in the Fall semester who achieves high academic standing</td>
<td>1 award of $1,000</td>
<td>Student registered in the Fall semester who achieves high academic standing</td>
<td>The Guelph Varsity Athletic Accessibility Scholarship [I0518]</td>
<td>Established by alumni and friends of the University of Guelph. Apply to Student Financial Services by October 7 providing a covering letter describing on- and off-campus activities and a completed Need Assessment Form. Awarded at the annual Athletics Banquet.</td>
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<td>1 award of $2,000</td>
<td>Student registered in the Fall semester who achieves high academic standing</td>
<td>The Guelph Varsity Athletic Accessibility Scholarship [I0518]</td>
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<td>Student registered in the Fall semester who achieves high academic standing</td>
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<tr>
<td>Student who achieves the highest grade in the course FRHD*3200</td>
<td>1 award of $2,000</td>
<td>Student registered in the Fall semester who achieves high academic standing</td>
<td>The Guelph Varsity Athletic Accessibility Scholarship [I0518]</td>
<td>Established by alumni and friends of the University of Guelph. Apply to Student Financial Services by October 7 providing a covering letter describing on- and off-campus activities and a completed Need Assessment Form. Awarded at the annual Athletics Banquet.</td>
</tr>
</tbody>
</table>
### IX. Scholarships and Other Awards, Bachelor of Bio-Resource Management Degree

#### Kip Hunter Prize [I0139]
For the best essay, written by an undergraduate in a philosophy course. The essay may be either a required assignment for a course (in which case either the student or the instructor may submit it) or it may be specially prepared for the competition. Submission of essays is to the Chair, Department of Philosophy, by the end of the 12th week of the Winter semester.

**Donor(s):** Faculty, students and staff of the Philosophy Department  
**Qualification(s):** Any undergraduate who has registered for a philosophy course during the academic year in which the prize is awarded.

**Amount:** 1 Book prize

#### O.A.C. Students' Federation Medal [C0217]
Application not required.

**Donor(s):** OAC  
**Qualification(s):** Graduating student in an undergraduate degree program in a major in an OAC department who has been an outstanding leader in student activities at the College level throughout his or her University career.

**Amount:** 1 Medal

#### Oxford County Pork Producers Scholarship (Degree) [I0531]
The Oxford County Pork Producers have made available this scholarship. Apply to OAC Awards Committee by April 1 with a letter of up to two pages in length including information about leadership, community involvement and pork industry involvement.

**Donor(s):** Oxford County Pork Producers  
**Qualification(s):** Any student who has completed a minimum of 5.0 credits in an OAC degree program with a minimum cumulative average of 70%, pork production background or interest in pork production/industry, and demonstrated leadership and/or community involvement. Preference will be given to students from Oxford County or surrounding area.

**Amount:** 1 award of $1,000

#### Peter Mann Award for Embryology [I2032]
Provided by colleagues and friends of Dr. Mann, a scholar and teacher of Embryology from 1954-1987. Application not required.

**Donor(s):** Colleagues and friends of Dr. Mann  
**Qualification(s):** Student from any degree program completing the course BIOM*3040 Biomedical Embryology, with the highest academic standing.

**Amount:** 1 award of $100

#### Stephanie Wilken Volunteer Award [I0449]
Established by the Wilken family in memory of Stephanie Wilken, BA 1995. Apply to Student Financial Services with letter indicating the kind and extent of volunteer activities at the Wellness Centre by October 1. Selection committee is the Senate Committee on Awards on the recommendation of the Student Wellness Educator at the Wellness Centre.

**Donor(s):** Bev and Darlene Wilken  
**Qualification(s):** Student registered in any undergraduate degree program, who has been a volunteer for at least two semesters at the Wellness Centre. The recipient will be selected on the basis of academic performance in all courses to date and volunteer work at the Wellness Centre.

**Amount:** 1 award of $1,000

#### The Jack and Lillian MacDonald Scholarship [E0379]
Family, friends, and colleagues of Lillian MacDonald and Dr. Jack MacDonald, Vice-President, Academic, of the University of Guelph from 1986 to 1995, have established a scholarship that recognizes their commitment to increasing the accessibility of post-secondary education to aboriginal persons. Apply by letter to Student Financial Services by April 1.

**Donor(s):** Jack and Lillian MacDonald  
**Qualification(s):** In the first instance, the award will be given to an entering student coming from the Grand River Polytechnic Institute (GRPI) and who has received the highest cumulative average in the Native University Access Program. If there is no entering student in any one year, the scholarship will be awarded to the in-course student who is a graduate of the GRPI who has the highest cumulative average at the University.

**Amount:** 1 award of $900

#### Thomas H. Peters Scholarship [I0233]
Application not required.

**Donor(s):** Friends and associates of Thomas H. Peters  
**Qualification(s):** Student in any academic program of the University who has completed courses in Land Reclamation (e.g. CROP*2280, SOIL*3200), with a minimum 10.0 credits completed. Applicants must have a minimum of 70% cumulative average and have demonstrated an interest and aptitude in the area of crops and land reclamations.

**Amount:** 1 award of $250

#### Toronto District Beekeeper’s Association Scholarship [I0285]
A scholarship is offered by the Toronto District Beekeepers Association in memory of the late Hugh McLeod, past chair of the Association. Application not required.

**Donor(s):** Mr. Jack Robinson  
**Qualification(s):** The recipient will have good academic standing, have participated in extracurricular activities, and demonstrated a keen interest in beekeeping.

**Amount:** 1 award of $500

#### United Steelworkers LU4120 Scholarship [I0293]
Apply to Student Financial Services, by January 31.

**Donor(s):** United Steelworkers LU4120  
**Qualification(s):** Student who is a member or former member, or who is from the immediate family of a member of United Steelworkers LU 4120, and who is entering semester 2, 3, or 4 of a degree or diploma program in the Winter semester. If there is more than one eligible candidate, the award will go to the one who has attained the highest relative class standing in his or her previous full-time semester, provided that a minimum of 70% standing is obtained.

**Amount:** 1 award of $800

#### Van Stralen and Van Der Hoeven Memorial Scholarship [I0296]
Application will be made by nominations signed by 4 currently registered students forwarded to Student Financial Services by April 1. Presentations are made in the Fall semester.

**Donor(s):** Mr. & Mrs. J. Van Stralen & family and Mr. & Mrs. Hans Van Der Hoeven & family  
**Qualification(s):** Students that have completed a minimum of 2.0 credits, but not more than 7.5 in the Winter term in any degree program who have obtained a minimum of 70% standing. Selection will be made on the basis of participation in university activities and the student’s home community as well as qualities of leadership, ambition and initiative.

**Amount:** 2 awards of $400

#### W.C. Winegard Medal [C0311]
The W.C. Winegard Medal is the most prestigious graduating award of the University of Guelph. One student will be nominated by each College Awards Committee. The Senate Awards Committee will make the final selection and the medal will be awarded at Convocation in June. Application not required.

**Donor(s):** The Board of Governors of the University  
**Qualification(s):** Graduating student who excels both academically and in extracurricular activities.

**Amount:** 1 Gold medal

#### W.N. Vaughan Medal [C0299]
Prospective candidates will be nominated by Senators and the medal winner will be chosen by a committee selected by the Striking Committee. The medal will be awarded at Convocation in June. Application not required.

**Donor(s):** Friends of Walter N. Vaughan  
**Qualification(s):** Student senator who has high academic standing and who has made a substantial contribution to student life and to the University, particularly through involvement in and commitment to Senate activities.

**Amount:** 1 Medal
<table>
<thead>
<tr>
<th>Scholarship Name</th>
<th>Amount</th>
<th>Qualification(s)</th>
<th>Donor(s)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Tara Lynn Giuliani Memorial Award [I0375]</strong></td>
<td>1 award of $1,000</td>
<td>Most academically promising applicant with a demonstrated disability and having financial need.</td>
<td>The Giuliani Family</td>
<td>In memory of Tara Lynn Giuliani, a bright young woman, who did not let her blindness stand in the way of her studies at the University of Guelph. Apply to the Centre for Students with Disabilities by November 25.</td>
</tr>
<tr>
<td><strong>Eleanor Morgan &amp; Bill Archibald Scholarships [I4540]</strong></td>
<td></td>
<td></td>
<td>The Family of Eleanor &amp; Bill Archibald</td>
<td>The family of Eleanor and Bill Archibald, with the assistance of the Ontario government's OSOTF program, provide this scholarship in memory of their parents. Apply with a completed Need Assessment Form and a letter outlining community involvement to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD</td>
</tr>
<tr>
<td><strong>Erin Demers Memorial Scholarship [I0406]</strong></td>
<td></td>
<td></td>
<td>Family and friends of Erin Katrina Demers</td>
<td>The family and friends of Erin Demers, a first-year student at the University of Guelph who was tragically killed in a car accident in 1996, have established this scholarship in her memory. Apply to Student Financial Services by April 1 with a completed Need Assessment Form, along with one supporting reference letter from a Residence Assistant, Residence Manager, or Residence Officer. ACCESS AWARD</td>
</tr>
<tr>
<td><strong>Euclid-Hitachi Scholarships [I4517]</strong></td>
<td></td>
<td></td>
<td>Euclid-Hitachi of Canada Ltd.</td>
<td>Established by Euclid-Hitachi of Canada Ltd., with the assistance of the Ontario government's OSOTF program, to assist students with financial need to continue their studies as full-time students. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD</td>
</tr>
<tr>
<td><strong>Graham Family Incentive Scholarship [I4506]</strong></td>
<td>2 awards of $1,500</td>
<td></td>
<td>Harvey Graham OAC '39</td>
<td>Provided by Harvey Graham (OAC '39) with the assistance of the Ontario government's OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD</td>
</tr>
<tr>
<td><strong>R. Douglas and Kathleen Kennedy Scholarship in OAC [I0547]</strong></td>
<td></td>
<td></td>
<td>Mrs. Kathleen Kennedy and the late Mr. R. Douglas Kennedy</td>
<td>Douglas (OAC '39) and Kathleen (MAC '39) Kennedy met at a &quot;hop&quot; on campus in 1937 and later married. They established this scholarship to celebrate their time on campus and their 62 years of marriage. Apply to Student Financial Services by October 7 with a completed Need Assessment Form. ACCESS AWARD</td>
</tr>
<tr>
<td><strong>Bette Stephenson Accessibility Bursary [I3054]</strong></td>
<td></td>
<td></td>
<td></td>
<td>In recognition of the work of Dr. Bette Stephenson in supporting students with learning disabilities, the University of Guelph offers bursaries to students who have demonstrated financial need and who have a learning disability. These bursaries will be used to offset the costs of a required assessment, or the purchase of a computer that is required to support their learning needs. Apply to Student Financial Services, with a completed Need Assessment Form by October 7. Awarded in the Winter semester. ACCESS AWARD</td>
</tr>
<tr>
<td><strong>Brinson Partners Inc. Bursaries [I3526]</strong></td>
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<td></td>
<td>Brinson Partners Inc., with the assistance of the Ontario government's OSOTF program, has established these bursaries. Apply with a completed need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD</td>
</tr>
<tr>
<td><strong>Burnbrae Farms Bursaries [I3525]</strong></td>
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<td>Established by Burnbrae Farms, with the assistance of the Ontario government's OSOTF program to assist students with financial need to continue their studies as full-time students. Apply with a completed need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD</td>
</tr>
<tr>
<td><strong>Class of '72: 25th Reunion Bursaries [I3512]</strong></td>
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<td>Established by the Class of '72: 25th Reunion Fund with the assistance of the Ontario government's OSOTF program to support students who wish to study full-time. Apply to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD</td>
</tr>
<tr>
<td><strong>Class of OAC ’33 Bursaries [I3531]</strong></td>
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<td>Established by the class of OAC '33 on the occasion of their 65th Anniversary, with the assistance of the Ontario government's OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD</td>
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<tr>
<td><strong>Class of OAC ’36 Bursaries [I3501]</strong></td>
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<td>Established by the Class of OAC '36 with the assistance of the Ontario government's OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD</td>
</tr>
<tr>
<td><strong>Brinson Partners Inc.</strong></td>
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<td>Brinson Partners Inc. with the assistance of the Ontario government's OSOTF program, to assist students with financial need to continue their studies as full-time students. Apply with a completed need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD</td>
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<tr>
<td><strong>Burnbrae Farms</strong></td>
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<td>Burnbrae Farms with the assistance of the Ontario government's OSOTF program, to assist students with financial need to continue their studies as full-time students. Apply with a completed need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD</td>
</tr>
<tr>
<td><strong>R. Douglas and Kathleen Kennedy Scholarship in OAC</strong></td>
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<td>Established by Burnbrae Farms, with the assistance of the Ontario government's OSOTF program to assist students with financial need to continue their studies as full-time students. Apply with a completed need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD</td>
</tr>
<tr>
<td><strong>Graham Family Incentive Scholarship</strong></td>
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<td>Provided by Harvey Graham (OAC '39) with the assistance of the Ontario government's OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD</td>
</tr>
<tr>
<td><strong>R. Douglas and Kathleen Kennedy Scholarship in OAC</strong></td>
<td></td>
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<td></td>
<td>Established by the Class of '72: 25th Reunion Fund with the assistance of the Ontario government's OSOTF program to support students who wish to study full-time. Apply to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD</td>
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<tr>
<td><strong>Burnbrae Farms</strong></td>
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<td>Established by the Class of '72: 25th Reunion Fund with the assistance of the Ontario government's OSOTF program to support students who wish to study full-time. Apply to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD</td>
</tr>
<tr>
<td><strong>Class of OAC ’33 Bursaries</strong></td>
<td></td>
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<td></td>
<td>Established by the class of OAC '33 on the occasion of their 65th Anniversary, with the assistance of the Ontario government's OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD</td>
</tr>
<tr>
<td><strong>Brinson Partners Inc. Bursaries</strong></td>
<td></td>
<td></td>
<td></td>
<td>Established by Brinson Partners Inc. with the assistance of the Ontario government's OSOTF program to assist students with financial need to continue their studies as full-time students. Apply with a completed need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD</td>
</tr>
<tr>
<td><strong>Burnbrae Farms Bursaries</strong></td>
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<td>Established by Burnbrae Farms, with the assistance of the Ontario government's OSOTF program to assist students with financial need to continue their studies as full-time students. Apply with a completed need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD</td>
</tr>
<tr>
<td><strong>Class of OAC ’36 Bursaries</strong></td>
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<td>Established by the Class of OAC '36 with the assistance of the Ontario government's OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD</td>
</tr>
<tr>
<td>Scholarship Name</td>
<td>Amount</td>
<td>Qualification(s)</td>
<td>Donor(s)</td>
<td>Description</td>
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<tr>
<td><strong>David R. Leach Memorial Bursary [I3534]</strong></td>
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<td></td>
<td>Mrs Deborah Leach-Sartor</td>
<td>Provided in memory of David R. Leach by his family, with the assistance of the Ontario government’s OSOTF program. David entered OAC in 1969 as a member of OAC ‘73 and graduated with a B.Sc. in Agriculture in 1974. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD.</td>
</tr>
<tr>
<td><strong>Elizabeth Burton Bursaries [I3503]</strong></td>
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<td></td>
<td>Mrs Elizabeth Burton</td>
<td>Mrs. Elizabeth Burton, with the assistance of the Ontario government’s OSOTF program, provides bursaries to students with demonstrated financial need. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD. A number of awards totalling $2,900.</td>
</tr>
<tr>
<td><strong>Gryphon Investment Council Bursaries [I3513]</strong></td>
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<td></td>
<td>Gryphon Investment Council Inc.</td>
<td>Established by Gryphon Investment Counsel, with the assistance of the Ontario government’s OSOTF program. Awarded in the Winter semester. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD.</td>
</tr>
<tr>
<td><strong>Guelph Compassionate Health Bursary [I3061]</strong></td>
<td></td>
<td></td>
<td>Student Health and Dental Plan Reserve</td>
<td>This bursary has been established and approved by the Student Health and Dental Committee to assist students facing unforeseen health needs above and beyond the benefits offered through the mandatory University of Guelph health plan. Submit a Financial Need Assessment application accompanied by the physician recommendation, cost estimates and physician contact information to the Awards Officer, Student Financial Services. The application will be reviewed throughout the semester to handle emergencies immediately.</td>
</tr>
<tr>
<td><strong>Guelph Student Assistance Program [I3056]</strong></td>
<td></td>
<td></td>
<td>Undergraduate Students</td>
<td>These bursaries have been established and approved by undergraduate students through student referendum to assist undergraduate and University of Guelph campus diploma students in financial need. Apply to Student Financial Services with a completed Need Assessment Form by October 7. Typically, awarded in the Winter semester. ACCESS AWARD.</td>
</tr>
<tr>
<td><strong>Gwen Karr Memorial Bursary [I3100]</strong></td>
<td></td>
<td></td>
<td>Mr. T.K.C. Karr, O.A.C. ‘32</td>
<td>Mr. T.K.C. Karr, O.A.C. ‘32, has provided an endowment fund to assist students in a degree or diploma program of the Ontario Agricultural College. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD.</td>
</tr>
<tr>
<td><strong>Howard and Myrtle Rogers Bursaries [I3537]</strong></td>
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<td></td>
<td>The Estate of Howard and Myrtle Rogers</td>
<td>Provided by the Estate of Howard and Myrtle Rogers, with the assistance of the Ontario government’s OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD.</td>
</tr>
<tr>
<td><strong>International Emergency Medical Aid Assistance [I3059]</strong></td>
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<td></td>
<td>University of Guelph</td>
<td>The University of Guelph provides support to international undergraduate students that are faced with unexpected, or unforeseen financial shortfalls due to a medical issue not covered by UHIP or the Student Dental/Medical insurance plans. Students should apply to the International Student Advisor, in the Centre for International Programs office, by completing an International Student Financial Need Assessment Form and submitting documentation to support the medical issue. These bursaries are awarded on an on-going basis.</td>
</tr>
<tr>
<td><strong>International Student Bursaries [I3009]</strong></td>
<td></td>
<td></td>
<td>Mrs Norma L. Valeriote</td>
<td>Mrs. Norma L. Valeriote has made available a number of bursaries. Apply to the International Student Advisor. ACCESS AWARD.</td>
</tr>
<tr>
<td><strong>Irvine and Grace Black Memorial Bursary [I3051]</strong></td>
<td></td>
<td></td>
<td>Family and friends of Irvine and Grace Black</td>
<td>Established in memory of Irvine and Grace Black, by friends and family to recognize their many contributions to young people. Irvine, a well-known sheep breeder, was a judge at College Royal and the Royal Winter Fair for over fifty years, and Grace was active in the Women’s Institute and the Fergus Fall Fair. Apply to Student Financial Services with a completed Need Assessment Form and a letter outlining involvement in the 4-H Club and/or a Women’s Institute.</td>
</tr>
<tr>
<td><strong>Mary I. Whitelock Bursaries [I3524]</strong></td>
<td></td>
<td></td>
<td>Estate of Mary I. Whitelock</td>
<td>Established by the estate of Mary I. Whitelock, a friend of the University, with the assistance of the Ontario government’s OSOTF program, to assist students who wish to study full-time but who need financial support to do so. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD.</td>
</tr>
<tr>
<td><strong>O.A.C. ’55 Access Bursaries [I3157]</strong></td>
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<td></td>
<td>O.A.C. Class ’55</td>
<td>Provided by the class of O.A.C. ’55 with the assistance of the Ontario government’s OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD.</td>
</tr>
</tbody>
</table>
IX. Scholarships and Other Awards, Bachelor of Bio-Resource Management Degree

Scotiabank Bursaries [I3532]
Established by Scotiabank, with the assistance of the Ontario government's OSOTF program, to recognize the many contributions of Lloyd Minshall to his classmates and to OAC. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

Donor(s): Scotiabank
Qualification(s): Full-time students with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).
Amount: 2 awards of $1,500

Ontario Co-operatives R.P. Forshaw Bursary [I3013]
The Co-operatives, Credit Unions, friends and associates of Prof. R. P. Forshaw have established this bursary. Apply to Student Financial Services with a completed Need Assessment Form by October 7. Awarded in the Winter semester. ACCESS AWARD

Donor(s): The Co-operatives, Credit Unions, friends and associates of Prof. R.P. Forshaw
Qualification(s): Undergraduate students who have financial need. Preference may be given to candidates who have been or are members of a co-operative or credit union.
Amount: 1 award of $400

Ontario Grape Growers Bursary [I3033]
Offered by the Ontario Grape Growers Action Committee. Apply to Student Financial Services with a completed Need Assessment Form by October 7. Awarded in the Winter semester.

Donor(s): The Ontario Grape Growers Action Committee
Qualification(s): Students with good academic standing in semesters 3 to 6 of a degree program or semesters 3 to 4 of a diploma program administered by O.A.C., and demonstrated need of financial assistance.
Amount: Several of various amounts

Robert Auger Humanitarian Bursary [I3058]
This award, of up to $500, has been established through the generosity of staff in the Office of Registrarial Services, family and friends of Robert Auger, a former Associate Registrar at the University of Guelph. It is intended as an emergency fund to assist students who unexpectedly find themselves in difficult financial circumstances, to provide grocery, and textbook vouchers.

Donor(s): Office of Registrarial Services
Qualification(s): Students who require assistance through this fund should apply in confidence to the Assistant Registrar, Financial Aid, Student Financial Services.
Amount: Several awards of $500

University of Guelph International Bursary [I3048]
The University of Guelph provides support to International undergraduate students that are faced with unexpected, or unforeseen financial shortfalls while registered on campus. Students should apply to Benny Quay, in the Centre of International Programs office by completing an International Student Financial Need Assessment Form. These bursaries are awarded on an on-going basis.

Donor(s): University of Guelph
Qualification(s): Any International student registered in a degree program at the University of Guelph with a minimum registration of 1.50 course credits.
Amount: Several varies

University of Guelph Undergraduate In-Course Bursaries (MET-TR-UG) [I3037]
The University of Guelph offers in-course bursaries to students who have demonstrated financial need. Apply to Student Financial Services, with a completed Need Assessment Form by October 7. Awarded in the Winter semester. ACCESS AWARD

Donor(s): University of Guelph
Qualification(s): Students, supporting (a) child(ren) who demonstrate greatest financial need.
Amount: Several awards of $500, Several awards of $2,000

T.K. Warley Bursaries [I3510]
Established by O.A.C. Alumni Association, with the assistance of the Ontario government's OSOTF program, to recognize Professor T.K. Warley's significant contribution to the O.A.C. Alumni Foundation and to students through teaching and promotion/development of "Experience Agriculture". A degree student may receive this bursary twice. Apply by letter stating qualifications with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

Donor(s): OAC Alumni Association
Qualification(s): Students with demonstrated financial need who are in semester 5 to 8 of any degree program within O.A.C.. A minimum 65% is required, as is participation in student activities, governance, and/or college affairs. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).
Amount: 3 awards of $500

University of Guelph Access Bursaries [I3522]
Provided by alumni and friends of the University, with the assistance of the Ontario government's OSOTF program, to support undergraduate, graduate or OAC (Guelph) diploma students who wish to study full-time but who need financial support to do so. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD. Variable amounts from $500 to $2,000

Donor(s): Alumni and Friend of the University of Guelph
Qualification(s): Full-time students with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).
Amount: Several awards of $500, Several awards of $2,000

University of Guelph Alumni Association Access Bursaries [I3523]
Established by the University of Guelph Alumni Association, with the assistance of the Ontario government's OSOTF program, to support students who wish to study full-time but who need financial support to do so. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

Donor(s): University of Guelph Alumni Association
Qualification(s): Full-time in-course students with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).
Amount: 2 awards of $1,000

University of Guelph Child Care Bursaries [I3053]
In order to provide accessible child care to students with (a) child(ren), the University of Guelph offers bursaries to students who have demonstrated financial need. Apply to Student Financial Services, with a completed Need Assessment Form by October 7. Awarded in the Winter semester. A number of awards between $500 and $2,000.

Donor(s): University of Guelph
Qualification(s): Students, supporting (a) child(ren) who demonstrate greatest financial need, to offset the costs of child care. To be eligible, undergraduate students must be full-time (as defined by OSAP regulations) and Canadian citizens or permanent residents with demonstrated financial need.
Amount: Several awards of $500, Several awards of $2,000

University of Guelph International Bursary [I3048]
The University of Guelph provides support to International undergraduate students that are faced with unexpected, or unforeseen financial shortfalls while registered on campus. Students should apply to Benny Quay, in the Centre of International Programs office by completing an International Student Financial Need Assessment Form. These bursaries are awarded on an on-going basis.

Donor(s): University of Guelph
Qualification(s): Any International student registered in a degree program at the University of Guelph with a minimum registration of 1.50 course credits.
Amount: Several varies

University of Guelph Undergraduate In-Course Bursaries (MET-TR-UG) [I3037]
The University of Guelph offers in-course bursaries to students who have demonstrated financial need. Apply to Student Financial Services, with a completed Need Assessment Form by October 7. Awarded in the Winter semester.

Donor(s): University of Guelph
Qualification(s): Ontario students registered for full-time studies (as defined by OSAP) in a degree program with demonstrated financial need and a minimum of 2.0 course credits completed.
Amount: Several awardsranging in value from $100 to $3,000
IX. Scholarships and Other Awards, Bachelor of Bio-Resource Management Degree

In-course Travel Grants

Arthur D. Latornell Undergraduate Travel Grants [T0058]

An endowment fund established in memory of Arthur D. Latornell, OAC ’50, who had a life-long professional career in resource management and conservation and a special interest in helping young people. The funds are given to provide twenty-five travel grants. These travel grants are offered to assist students in attending conferences, courses, co-op student exchanges or study abroad programs in these areas. Students may receive this grant only once. Apply to Student Financial Services. Deadline dates are June 1 for Fall travel, October 1 for Winter travel, and February 1 for Summer travel. Up to 80% of estimated travel costs to a maximum of $1,000.

Donor(s): The Estate of Arthur D. Latornell
Qualification(s): Students in semester 3 and above. Students must have at least a 70% average and a primary area of interest related to natural resources management, environmental science, conservation, soil science and/or rural development. Students will be asked to submit a one-page review of their travel experience, including the role the travel grant played, to the University after completion of the travel.
Amount: Several up to a maximum of $1000

University of Guelph Undergraduate In-Course Bursaries (NON OSAP TR) [I3047]

The University of Guelph offers in-course bursaries to students who have demonstrated financial need. Apply to Student Financial Services, with a completed Need Assessment Form by October 7. Awarded in the Winter semester.

Donor(s): University of Guelph
Qualification(s): Undergraduate students registered for full-time studies (as defined by OSAP) in a degree program with demonstrated financial need and a minimum of 2.0 course credits completed.
Amount: Several awards to a maximum of $800

A.W. Archibald Memorial Travel Grant [T4541]

Mr. A.W. Archibald, OAC ‘33 with the assistance of the Ontario government's OSOTF program, provide these travel grants to students who plan to travel for a semester abroad or to attend other schools outside of Canada for workshops or other academic related purposes. Apply to Student Financial Services with a letter outlining proposed travel plans and academic purpose accompanied by a letter of support from a faculty member or student advisor, a travel budget, and a completed Financial Need Assessment Form by October 7. ACCESS AWARD.

Donor(s): University of Guelph
Qualification(s): Full-time undergraduate students registered in any degree program with demonstrated financial need. Preference will be given to students who are not eligible for provincial and/or federal assistance programs such as Ontario Student Assistance Program (OSAP) and/or Canada Student Loan Program (CSLP).
Amount: Several awards of varying amount to a maximum of $1,000

In-course Travel Grants

Canadian Friends of the Hebrew University in Jerusalem Travel Bursary [T4532]

The Canadian Friends of the Hebrew University of Jerusalem, with the assistance of the Ontario government's OSOTF program, have established these travel scholarships to assist students study at the Hebrew University of Jerusalem. Apply by letter with a completed Need Assessment Form to Student Financial Services by May 1. ACCESS AWARD. Up to three awards totalling $7500.

Donor(s): Canadian Friends of the Hebrew University in Jerusalem
Qualification(s): Undergraduate degree students in either the second or third year of study, Masters students in the first year of study, and Doctoral students in the first three years of study are eligible to be considered. Applicants must provide documentation that they have approval from the Hebrew University of Jerusalem (i) to take courses and (ii) for the period of the visit. Students must also arrange appropriate University of Guelph approvals for a "Letter of Permission" prior to applying. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).
Amount: 3 Awards with varying amounts

Massey Fund Travel Scholarships [T0417]

Travel scholarships available from the Massey Fund. Not tenable with other awards that support travel costs. Apply by letter outlining the study abroad/exchange program and travel costs to the OAC Dean's Office by April 15.

Donor(s): OAC '53
Qualification(s): OAC undergraduate students who are participating in an approved study abroad or exchange program outside Canada. Academic standing in the last two full-time semesters or equivalent will be used to determine recipients.
Amount: 1 award of $1,000

OAC ’47 Travel Bursaries [T3505]

Provided by OAC’47 on the occasion of its 50th anniversary and with the assistance of the Ontario government's OSOTF program. Apply by letter with a completed Travel Award Application and a Need Assessment Form for Travel awards to Student Financial Services by October 1, February 1 or June 1. ACCESS AWARD

Donor(s): OAC ’47
Qualification(s): OAC undergraduate students who have demonstrated financial need and who are participating in a study abroad program for academic credit at an approved institution. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).
Amount: 3 awards of $600

Richard and Sophia Hungerford Undergraduate Travel Scholarships [T4508]

The estate of Richard and Sophia Hungerford, with the assistance of the Ontario government's OSOTF program, has established this endowment to provide travel scholarships to undergraduate students with demonstrated financial need who wish to study in developing countries, or attend conferences on development. Apply to Student Financial Services with a description of the intended travel, an estimate of the travel costs and a completed Need Assessment Form at least one month prior to departure. Deadline dates are June 1 for Fall travel, October 1 for Winter travel, and February 1 for Summer travel. ACCESS AWARD.

Donor(s): The Estate of Richard Hungerford
Qualification(s): Registered undergraduate students with demonstrated financial need who have at least a 70% cumulative average in the last 2 semesters of full-time equivalent study are eligible. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).
Amount: Several awards of varying amounts to a maximum of $1,000

University Student Assistance Program [I3057]

These bursaries have been established and approved by the University of Guelph to assist undergraduate and University of Guelph campus diploma students in financial need. Apply to Student Financial Services with a completed Need Assessment Form by October 7. Typically, awarded in the Winter semester.

Donor(s): University of Guelph
Qualification(s): Full-time undergraduate students registered in any degree program with demonstrated financial need. Preference will be given to students who are not eligible for provincial and/or federal assistance programs such as Ontario Student Assistance Program (OSAP) and/or Canada Student Loan Program (CSLP).
Amount: Several awards of varying amount to a maximum of $1,000

In-course Travel Grants

J. Ross Cavers International Exchange Scholarship [T0051]

OAC ’53 provides this scholarship in memory of J. Ross Cavers, their honorary year member and Professor Emeritus. Apply to Student Financial Services, by April 1.

Donor(s): OAC ’53
Qualification(s): OAC undergraduate student in OAC with travel and/or housing costs associated with a semester or more of academic study or cooperative work experience through a recognized university outside Canada. Students must have completed [7.90] credits and have satisfactory academic standing in their undergraduate course work. Preference will be given to a candidate who has exhibited qualities of leadership.
Amount: 1 award of $1,000

University Police Bursaries [I3019]

The University Police have made available a number of bursaries. Apply to Student Financial Services with a completed Need Assessment Form by October 7.

Donor(s): The University Police
Qualification(s): Full-time undergraduate and graduate students who have financial need.
Amount: Several varies

University Police Bursaries [I3019]
Roderick Long International Travel Grant [T0360]
Offered in memory of the late Roderick Long, O.A.C.’54. Up to eighty percent of the travel costs associated with the study outside of Canada program will be covered up to a maximum of $1,000 per student. Application by letter should be made to the Dean O.A.C. by April 15, and include a description of the study abroad program. Travel grant (or grants) totalling $1,500.

Donor(s): Mr. Roderick W. Long
Qualification(s): O.A.C. undergraduate student who is studying outside of Canada on an approved program for one or more semesters
Amount: Several awards of $1,500

University of Guelph Travel Scholarships [T0421]
The University of Guelph, through the sale of Guelph London House, has established an endowment to provide travel scholarships to undergraduate and graduate students who wish to study outside of Canada but need financial support to do so. A total of $35,000 is available in the fund. Apply to Student Financial Services with a completed Travel Grant Application and Financial Need Assessment Form by October 1 for Winter travel, February 1 for Spring travel and June 1 for Fall travel.

Donor(s): University of Guelph
Qualification(s): Registered undergraduate and graduate students that have completed 5.0 credits with demonstrated financial need who have a minimum 70% cumulative average in the last two semesters of full-time equivalent study are eligible to apply. The value of the award will depend on the assessed financial need. The scholarship can cover additional costs of travelling outside of Canada including: airfare, administrative costs, and differential costs of accommodation.
Amount: Several up to $1,000
BACHELOR OF COMMERCE

Scholarships and Other Awards, Bachelor of Commerce

Please refer to the General Statement on Awards for:

- Award Eligibility
- ACCESS Awards Eligibility
- Ontario Student Opportunity Trust Fund (OSOTF) Program
- How Awards are Paid

The University reserves the right to amend awards subject to the availability of funds.

Entrance Scholarships

Amos & William Lowe Memorial Scholarship [E0158]
Endowed by the late William B. Lowe of Fort Francis, Ontario. Preference will be given first to eligible students from the district of Rainy River, then from the district of Kenora or Thunder Bay, and finally from the remaining districts of Northern Ontario. Application not required. Two awards of $1,250 paid in two installments of $625.

Donor(s): William B. Lowe and Amos Edgar Lowe
Qualification(s): Student entering any of the undergraduate degree programs of the Ontario Agricultural College.
Amount: 2 awards of $1,250

Angelo and Frank Agro Undergraduate Scholarship [E0520]
Provided by the Agro Scholarship Fund. Apply by April 1 to Student Financial Services, including a covering letter describing your activities within 4H (details of 4H club membership, creativity in support of 4H activities, participation in activities and events, volunteer leadership roles, etc.) and a letter of reference from a 4H club official attesting to your involvement. $4,000 ($1,000 annually for four years).

Donor(s): The Frank Agro Estate
Qualification(s): Full-time students entering semester 1 who have attained a minimum 80% admission average in their graduating year from high school. The scholarship will be awarded to the eligible student demonstrating the greatest past or continuing involvement with 4H activities. Recipients must maintain full-time studies and at least a 70% program average each year for continuation of the award.
Amount: 1 award of $4,000

Board of Governors’ Scholarships [E0317]
The scholarship will be paid in eight equal installments with the first and second payments payable shortly after registration in semesters 1 and 2. The 3rd to 8th payments are contingent upon obtaining a minimum average of 80% over the previous two semesters of full-time study. Students who fail to qualify for a payment may re-qualify by subsequently obtaining an 80% or better average over the previous two semesters of full-time study. Application not required. Twenty-five awards of $8,000 ($2,000 annually for 4 years).

Donor(s): Board of Governors
Qualification(s): Outstanding students entering semester 1
Amount: 25 awards of $8,000

Clara E. Elliot Entrance Scholarships [E0095]
Provided by the estate of Clara E. Elliot, MAC ’07. This scholarship is payable in 4 annual installments of $2,000. To maintain the award for the second year of study, the recipients must have at least a 77% average and continue to demonstrate the qualities on which the award was given. To maintain the scholarship into the 3rd and 4th years, the recipient must have at least an 80% average in the prior year and continue to demonstrate the qualities on which the award was given. Eligible students admitted to semester 1 will be invited to submit an application. One award of $8,000 ($2,000 annually for 4 years).

Donor(s): Clara Elliot Estate
Qualification(s): Students entering semester 1 of the B.A.SC. program or the School of Hospitality and Tourism Management, Housing and Real Estate Management or Marketing Management majors of the B.COMM. program with at least an 80% entrance average. The recipient will be selected on the basis of academic achievement and evidence of participation in leadership roles as indicated by their application material and reference letters from teachers.
Amount: 1 award of $8,000

Elite Swine Entrance Scholarship [E0532]
This award is provided by Elite Swine Inc. to assist students entering an OAC undergraduate Program. High schools will forward nominations to the OAC Awards Committee by September 15.

Donor(s): Elite Swine Inc.
Qualification(s): High school graduates who have applied to OAC undergraduate programs, based on admission average, contributions to their schools and communities and on their potential to become leaders in society. Preference will be given to students with a strong interest in animal science, particularly swine production.
Amount: 1 award of $300

Four Seasons Hotels and Resorts Entrance Scholarship [E0484]
Established by Four Seasons Hotels and Resorts to encourage high quality high school or transfer students to consider a career in hospitality and tourism management. Application not required.

Amount: 5 awards of $1,000

Gordon W. Innes Scholarship [E0140]
Established by the Gordon W. "Sparky" Innes Scholarship Fund Committee of the Woodstock Agricultural Society. Application not required.

Donor(s): Gordon W. "Sparky" Innes Scholarship Fund Committee of the Woodstock Agricultural Society
Qualification(s): Student entering the B.COMM. program in a major offered by the School of Hospitality and Tourism Management each Fall semester. The College of Social and Applied Human Sciences Awards Committee, on the recommendation of the Hospitality and Tourism Management Awards Committee will select the winners on the basis of academic standing and demonstrated interest and commitment to hospitality and tourism management.
Amount: 1 award of $1,400

International Student Entrance Scholarships [E0408]
In support of the University’s strategic direction of internationalism, entrance scholarships are available each Fall semester to the top international students entering their first semester of an undergraduate degree program at the University of Guelph. Applicants must submit all relevant documentation for admission consideration by March 1 to be considered for a scholarship. These scholarships are awarded on a competitive basis.

Donor(s): University of Guelph
Qualification(s): Students on a "student visa" entering an undergraduate degree program at the University of Guelph with a record of high academic achievement and extracurricular involvement, and studying full-time. This award is offered for the first year of study.
Amount: Several awards ranging in value from $500 - $6,000

J.D. MacLachlan Scholarship [E0170]
Provided by the family of J.D. MacLachlan. Application not required.

Donor(s): The J.D. MacLachlan Trust
Qualification(s): Student entering the University with the highest admission average.
Amount: 1 award of $1,500

L.A. Beattie & J.C. Beattie Memorial Scholarship [E0026]
The estate of Lillian Ann Beattie and Jeanne Cockburn Beattie. The scholarship is awarded alternately between the B.A.Sc. (odd-numbered years) and B.COMM. (even-numbered years) programs. Application not required.

Donor(s): The estate of Lillian Ann Beattie
Qualification(s): Student entering full-time studies in the B.A.Sc. program or the School of Hospitality and Tourism Management, Housing and Real Estate Management or Marketing Management majors in the B.Comm. program who has achieved the highest mark in English during the final year of high school. In the event of a tie, preference will be given to students from rural areas.
Amount: 1 award of $300

Last Revision: October 18, 2005
2005-2006 University of Guelph Undergraduate Calendar
<table>
<thead>
<tr>
<th>Scholarship Name</th>
<th>Donor(s)</th>
<th>Qualification(s)</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Lincoln Alexander Chancellor's Scholarship</strong> [E0493]</td>
<td>Many Donors</td>
<td>Entering students of academic distinction who are Aboriginal, persons with a disability or members of a racial minority, and who have made significant contributions to their schools and communities and demonstrated the potential to become leaders in society.</td>
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<tr>
<td></td>
<td></td>
<td>Financial need may be taken into consideration.</td>
<td>2 awards of $20,000</td>
</tr>
<tr>
<td><strong>MacArthur-Humphries Scholarship</strong> [E0183]</td>
<td>Wilhelmina McArthur-Humphries Trust Fund</td>
<td>Provided by the Wilhelmina McArthur Humphries Trust Fund. This scholarship is awarded to students entering any undergraduate degree program and are based on the highest admission average. Application not required.</td>
<td>1 award of $500</td>
</tr>
<tr>
<td></td>
<td>Mac-FACS Alumni Association</td>
<td>This scholarship is offered to students entering the B.A.SC. program or the Marketing Management or Housing and Real Estate Management majors of the B.COMM. program with high academic standing and who have shown leadership in community-based volunteer activities. Students who have applied to the above programs will be invited to submit an application.</td>
<td>12 awards of $20,000</td>
</tr>
<tr>
<td><strong>Lincoln Alexander Chancellor's Scholarship</strong> [E0493]</td>
<td>Mac-FACS Alumni Association</td>
<td>Students in the Housing and Real Estate Management or Marketing Management majors of the B.Comm. program. Selection will be based on the highest admission average. This award is not tenable with the President's Scholarship or the Lincoln Alexander Chancellor's Scholarship.</td>
<td>1 award of $1,000</td>
</tr>
<tr>
<td><strong>Mac-Arthur Scholarship</strong> [E0521]</td>
<td>Paul and Aileen Clarke</td>
<td>Students entering semester 1 with a minimum 75% admission average. Preference will be given to those students from Lanark and Wellington Counties. An equal number of awards are available to students from each county. In the case of insufficient eligible applicants from one county, the awards will be eligible to students from the other county.</td>
<td>12 awards of $1,000</td>
</tr>
<tr>
<td><strong>President's Scholarship</strong> [E0238]</td>
<td>A number of President's Scholarships have been named in honour of the following people and/or donors:</td>
<td>The University of Guelph. Twelve scholarships of $20,000 ($5,000 annually), named to honour their donors or distinguished members of the University, are awarded to entering students of academic distinction who have made significant contributions to their schools and communities and demonstrated the potential to become leaders in society.</td>
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<tr>
<td></td>
<td>Dick Brown</td>
<td>Two of the scholarships, endowed by Dr. Patrick Lett are awarded to winners whose leadership qualities best reflect those demonstrated by Dick Brown in University Athletics from 1968 to 1988.</td>
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<td></td>
<td>Cecil H. Franklin and Ingrid Franklin</td>
<td>In honour of Cecil Franklin, former Chair of the Board of Governors and Honorary Fellow of the University, the University of Guelph has named one of these twelve prestigious entrance awards to recognize his financial contributions and volunteer support to the President's Entrance Scholarship program.</td>
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<td>Charles S. Humphrey</td>
<td>In memory of Charles S. Humphrey, a former President of Hart Chemical Company Canada Ltd. and long-time friend, the University has named one of these twelve prestigious entrance awards to recognize his financial contributions through his estate to the President's Entrance Scholarship program.</td>
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<td>Jack R. Longstaff</td>
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<td>Burton C. Matthews</td>
<td>The University of Guelph has named one of these twelve prestigious entrance awards in honour of Burton C. Matthews to recognize his insight and leadership in establishing the President's Entrance Scholarship program.</td>
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<td>Kathleen and Frederick Metcalf</td>
<td>Mr. and Mrs. F.T. Metcalf of Guelph have endowed this award. After a distinguished career in cable TV, broadcasting and publishing, the late Mr. Metcalf retired as President of Maclean Hunter Ltd. and Chairman of the Board of Maclean Hunter Cable Ltd. He was Honorary Chairman of Maclean Hunter Cable Ltd. and a member of the University of Guelph Heritage Board (1996).</td>
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<td>Rol-land Farms Limited</td>
<td>Two of the scholarships are endowed by the four shareholders of Rol-land Farms Limited of Blenheim, Ontario, Hank, Peter, Arthur and Eric Vander Pol and their families. The Vander Pol families are generous supporters of a number of University projects and programs.</td>
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<td><strong>P.A.J. Clarke Family Scholarship</strong> [E0381]</td>
<td>Paul and Aileen Clarke</td>
<td>Paul and Aileen Clarke and their family established the endowment for this entrance scholarship in honour of Paul's father, the late Jack Clarke, a Blenheim area farmer. Apply by letter outlining extracurricular and/or community activities, ensuring that you have completed a Need Assessment Form for Entrance Awards, and submit to Student Financial Services by April 1. Students who have applied to the University for admission will receive information on completing a Need Assessment Form for Entrance Awards, from the University early in the calendar year. This award is not tenable with the President's or Lincoln Alexander Chancellor's Scholarship. Annual payments are contingent upon full-time enrolment and maintaining a minimum 70% average on the previous Fall and Winter semesters. One award of $12,000 ($3,000 annually for 4 years).</td>
<td>1 award of $12,000</td>
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</table>
University of Guelph Entrance Scholarships [E0291]
This scholarship is based on the final admission average and program of study that is calculated by Admission Services, based on 12U, 12M, or OAC courses. These will be awarded based on the final high school grades that are submitted to the University in July. A minimum 85% final admission average guarantees an award. The scholarship will be applied directly to the student's financial account in two equal payments in the Fall and Winter Semesters. You can view the scholarship amounts at: http://www.uoguelph.ca/studfin/fall_current_merit.shtml. Application not required.

Donor(s): University of Guelph
Qualification(s): Students entering their first year of post-secondary studies for the first time and have a minimum 85% final admission average.
Amount: Several awards ranging in value from $1,500 to $3,000

University of Guelph Faculty Association Scholarship [E0292]
Award is payable at $750 per annum in the student's 1st, 3rd, and 5th semester levels, provided a cumulative average of at least a 70% is maintained. To receive the final payment, the recipient would normally be entering the 5th semester level within a period of 3 calendar years from the date of admission. Application not required.

Donor(s): University of Guelph Faculty Association
Qualification(s): Student entering an undergraduate degree program at the University of Guelph with the highest admission average who has been a resident in the County of Wellington during the previous twelve months.
Amount: 1 award of $2,250

W. Penri Morris Memorial Scholarship [E0430]
Established by the family in memory of Penri Morris, who was killed World War II action in 1944 at the age of 21. Penri grew up on the family fruit farm near Forest, Ontario. After graduating from high school, he joined the Royal Canadian Air Force and was attached to the Royal Air Force Bomber Command as a navigator at the time of this death. Awarded to the student with the highest cumulative academic performance above 75% in all courses of the last year in high school study (full-time or equivalent study). Application not required.

Donor(s): Prof. Rosalina Morris
Qualification(s): Students entering first year of any undergraduate program from North Lambton Secondary School in Forest, Ontario, in their absence, from Lambton County, and their absence, from Ontario.
Amount: 1 award of $1,000

Entrance Scholarships with Financial Need

Bill Klopp Memorial Award [E0150]
Priority will be given to a student from Kitchener-Waterloo Collegiate and Vocational Institute. Apply by letter, to Student Financial Services, outlining extracurricular activities and by completing the online Entrance Financial Need Assessment Application (N.A.F.) by May 1. Students should complete the Entrance Financial Need Assessment application as soon as they receive theirAcknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student).

Donor(s): Ross and Mary Lou Klopp
Qualification(s): Presented to a student entering semester 1 from the cities of Kitchener or Waterloo who has demonstrated involvement in extracurricular activities who has shown satisfactory academic performance and who has financial need.
Amount: 1 award of $500

Kenneth O. Hammill-Blount Canada Scholarship [E4356]
Established in honour of Kenneth Osborne Hammill, a long time friend of the University and retired plant manager of Blount Canada, with the assistance of the Ontario government's OSOTF program. The winner is chosen from the list of alternates for the President's Scholarships. President's Scholarship nominees should complete the online Entrance Financial Need Assessment application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student). Deadline to submit the application is May 1. ACCESS AWARD.

Donor(s): The Blount Foundation, Inc.
Qualification(s): Students from the Province of Ontario, with demonstrated financial need, entering one of the following programs on an annual rotation: B.A. in 98/99, then B.A.Sc., B.Com., B.S.C., B.S.C.(Agr.), B.S.C.(Eng.), B.S.C.(Env.). Recipients must maintain a B+ average or higher, continue to demonstrate financial need and be full-time students in order to qualify for subsequent installments. During the summer after the 3rd year, the scholars will propose, to Student Financial Services, an enrichment experiential undertaking related to the student's field of study; the grant application should include a detailed budget. A grant of up to $1,200 is available to support the undertaking, subject to continuing financial need and approval of the proposal by Student Financial Services. Upon completion, the student will write a report of the experience to Student Financial Services. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

Amount: 1 award of $9,600, payable in 8 payments of $1,200

Registrar's Entrance Scholarships [E0384]
Established by the University of Guelph to support entering undergraduate students with identified financial need. Students should complete the online Entrance Financial Need Assessment application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student). Deadline to submit the application is May 1. ACCESS AWARD.

Donor(s): University of Guelph
Qualification(s): Students entering a full-time undergraduate program on the basis of financial need and academic merit.
Amount: 500 awards of $2,000

Rol-Land Farms Scholarship [E4519]
Established by Rol-Land Farms, with the assistance of the Ontario government's OSOTF program, to attract entering students who might otherwise not be able to attend university for financial reasons. Students should complete the online Entrance Financial Need Assessment Application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student). Deadline to submit the application is May 1. ACCESS AWARD.

Donor(s): Rol-Land Farms
Qualification(s): Outstanding entering undergraduate degree students with demonstrated financial need and a minimum 80% cumulative average. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).
Amount: 13 awards of $2,000

Sleeman Brewing Scholarships [E4267]
Established by the Sleeman Brewing and Malting Company, with the assistance of the Ontario government's OSOTF program. One award alternates between a B.Sc. student in the College of Biological Science and the College of Physical and Engineering Science (beginning with C.P.E.S. in 2000/2001); one award is available to a B.COMM. students, in a major offered by the School of Hospitality and Tourism Management. Selection is by the University Bursary Committee. Students should complete the online Entrance Financial Need Assessment Application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student). Deadline to submit the application is May 1. ACCESS AWARD.

Donor(s): The Sleeman Brewing & Malting Company
Qualification(s): Full-time entering students registered in the B.Sc. program in the College of Biological Science or the College of Physical and Engineering Science respectively and B.COMM. students, in a major offered by the School of Hospitality and Tourism Management students with a minimum average of 80% in the last year of secondary school and demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).
Amount: 2 awards of $1,000
### International Student Entrance Bursaries [E3043]

In support of the University's strategic direction of internationalism, entrance bursaries are available each fall to assist some of our international students entering an undergraduate degree program at the University of Guelph. Students who have applied to the University of Guelph will receive an application form.

- **Donor(s):** University of Guelph
- **Qualification(s):** Students on a student visa entering an undergraduate degree program at the University of Guelph with demonstrated financial need.
- **Amount:** Several awards of $1,000, Several awards of $3,000

### Fred Hindle Bursary [E3500]

Awarded in memory of Fred Hindle, O.A.C.'38, a long-time generous supporter of his alma mater, who at the time of his death, wanted future students to have the same opportunity for an education as he had received. This bursary is awarded with the assistance of the Ontario government's OSOTF program. This bursary is dependent on continued demonstration of financial need and successful completion of study to advance into the next year. Students should complete the online Entrance Financial Need Assessment application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student). Deadline to submit the application is May 1. **ACCESS Award.** **One award of $6,000 ($1,500 annually for 4 years).**

- **Donor(s):** W. Roy Hindle and family
- **Qualification(s):** An entering O.A.C. degree student who has demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statement on Awards).
- **Amount:** 1 award of $6,000

### Gord Bennett Memorial and OAC '43 Class Bursary [E3515]

The family and friends of R. Gordon Bennett, O.A.C. '43, a former Deputy Minister of Agriculture, with the assistance of the Ontario government's OSOTF program, have created this bursary. Apply by letter to Student Financial Services and by completing the online Entrance Financial Need Assessment application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student). Deadline to submit the application is May 1. **ACCESS Award.**

- **Donor(s):** The family and friends of R. Gordon Bennett, OAC '43
- **Qualification(s):** O.A.C. student with demonstrated financial need entering the Diploma, B.Sc.(Agr.), or B.COMM., Agricultural Business major, programs. Preference will be given to students whose primary family occupation is farming. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statement on Awards).
- **Amount:** 1 award of $1,000

### Harvey Graham Bursary [E3030]

Provided by Harvey Graham (OAC '39). Students should complete the online Entrance Financial Need Assessment application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student). Deadline to submit the application is May 1.

- **Donor(s):** Harvey Graham, OAC '39
- **Qualification(s):** Student who has demonstrated financial need with preference given to a student who comes from a working farm. Students graduating from Lindsay C. V. I., Fenelon Falls Secondary School, or L. E. Weldon Secondary School will be considered. Each application must be accompanied by a reference letter from the Reeve of the student's home township.
- **Amount:** 1 award of $1,700

### University of Guelph Accessibility Scholarship [E3038]

Established by the University of Guelph to support entering undergraduate students with identified financial need. Students should complete the online Entrance Financial Need Assessment application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student). Deadline to submit the application is May 1. Scholarship offers will be made in May. This award is not tenable with the Registrar's Entrance Scholarship, but can be held with all other Entrance Awards. Approximately 150 awards of $9,000 ($3,000 in year one and $2,000 in years 2, 3 and 4).

- **Donor(s):** University of Guelph
- **Qualification(s):** Students entering a full-time undergraduate program on the basis of financial need and academic excellence.
- **Amount:** 150 awards of $9,000

### Justine Eves Learning Disability Accessibility Bursaries [E3057]

In memory of Justine Eves who was dyslexic and died tragically in an automobile accident in 1995, the Justine Eves Foundation together with the University of Guelph provides these awards to entering Undergraduate students who have a learning disability and who has demonstrated financial need. Students should complete the online Entrance Financial Need Assessment application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student). Deadline to submit the application is May 1.

- **Donor(s):** Justine Eves Foundation
- **Qualification(s):** Any entering undergraduate student that has financial need and a documented learning disability as defined by the Ontario Psychological Association.
- **Amount:** 4 awards of $3,000

### Robert Arthur Stewart Bursaries [E3272]

Established in memory of Mrs. Elsa H. Stewart of Pakenham, Ontario. Mr. Stewart graduated from the Ontario Agricultural College in 1933 and Mrs. Stewart from Macdonald Institute in 1932. Applicants for these bursaries should have a good academic record and an active interest in community affairs. A recommendation from the County agricultural representative or the secondary school principal is required and should be sent to Student Financial Services by April 1. Students should complete the online Entrance Financial Need Assessment application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student).

- **Donor(s):** The Estate of Mrs. H. Stewart
- **Qualification(s):** Students from the Ontario Counties of Lanark and Renfrew, and the Regional Municipality of Ottawa-Carleton, entering the 1st semester of a degree program at the University of Guelph.
- **Amount:** 12 awards of $500

### In-course Scholarships

#### Ann E. Barber Memorial Scholarship [I0023]

Established in 1963 in memory of Ann E. Barber, former superintendent of Macdonald Hall from 1931 to 1942 and Dean of Women from 1946 until her retirement in 1956, by the Mac-FACS Alumni Association. Apply to the CSAHS Undergraduate Awards Committee with a one-page description of contributions to student activities by April 1.

- **Donor(s):** Mac-FACS Alumni Association
- **Qualification(s):** Full-time student in the B.A.Sc. program or the Marketing Management or Housing and Real Estate Management major of the B.COMM. program who has completed between 5.0 and 10.0 course credits and has achieved a minimum 80% average in the semester just completed. The award will be given to the student who has made the greatest contribution to student activities in residence or on campus.
- **Amount:** 1 award of $500

#### Beth Park Memorial Scholarship [I0420]

The family and friends of Beth Park (FACS '79) have established a scholarship to foster talent in the Canadian fashion and textile industries. Apply by letter to the Department of Marketing & Consumer Studies Undergraduate Awards Committee by April 1. Include a résumé, a letter of reference and a 500-word statement documenting interest and experience in fashion or textile industries (retailing, marketing, merchandising, design).

- **Donor(s):** Holt Renfrew
- **Qualification(s):** Students in entering fourth year in Marketing Management or graduate students in the Department of Marketing & Consumer Studies. Students must have a minimum 75% average over the last two academic semesters and a demonstrated interest in fashion or textile industries (retailing, marketing, merchandising, design).
- **Amount:** 3 awards of $1,000

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2005-2006 University of Guelph Undergraduate Calendar Last Revision: October 18, 2005
Bill Brohman Memorial Scholarship [I0533]
The partners of Robinson Lott & Brohman LLP provide a $1500 annual scholarship in memory of Bill Brohman, a founding partner of the firm who served on the University of Guelph Board of Governors from 1986-1992. The award winner will be chosen on the basis of academic achievement in the three accounting courses (or their equivalents), involvement in extracurricular activities, and a demonstrated interest in a career in accountancy. In addition, if any of the three courses required were completed at another institution, applicants must submit officially-certified grades along with their two-page statements. Apply to the Associate Dean, Faculty of Management by April 1st, including a statement of up to two pages in length outlining your extracurricular involvement and interest in pursuing a career in accountancy.

Donor(s): Robinson Lott & Brohman LLP
Qualification(s): The award will be presented to a student enrolled in any of the majors of the B.Comm. program who has completed 12.5 to 15.0 course credits, including: AGEC*2220, Financial Accounting; AGEC*2230, Management Accounting OR HTM*3070, Hospitality and Tourism Management Accounting; and AGEC*3330, Intermediate Accounting or their equivalents.
Amount: 1 award of $1,500

Bill Taylor Memorial Scholarship [I0280]
Applications to include a supporting letter from a coach or intramural supervisor. Apply to Student Financial Services by April 1.

Donor(s): AMF Canada Ltd.
Qualification(s): Full-time student that has completed a minimum of 7.5 credits, but no more than 17.5 credits in the Winter term who has a cumulative 80% average or who is in the top 10% of his/her program. The recipient must have demonstrated responsibility and leadership qualities through participation in intramural or intercollegiate athletics.
Amount: 1 award of $900

Blackburn Scholarship [I0404]
In commemoration of the 125th Anniversary of the Ontario Agricultural College. Dr. D.J. Blackburn, a retired faculty member in Rural Extension Studies and former Director of the Associate Diploma Program has established this scholarship. Apply by letter, citing athletic contributions, to the OAC Awards Committee by April 1.

Donor(s): D.J. Blackburn
Qualification(s): OAC degree or diploma student who has participated in intercollegiate athletics and maintained a minimum cumulative average of 70% while registered at Guelph. Athletic excellence and leadership will be used to determine the recipient.
Amount: 1 award of $1,000

C.G.A. Ontario Award for Excellence [C0025]
Apply by April 1 to Student Financial Services indicating intent to pursue the CGA program of professional studies. One award of $150 plus a credit equaling one year’s tuition and course fees towards the CGA program (approximate value: $2,000)

Donor(s): Certified General Accountants Association of Ontario
Qualification(s): Graduating student who has a minimum cumulative average of 77% in Financial Accounting AGEC*2220; Management Accounting AGEC*2230; and Intermediate Accounting AGEC*3330.
Amount: 1 award of $150, plus 1 year tuition and course fee towards the CGA program. (approximate value of $2,000)

C.M. and D.J. Switzer Scholarships [I0276]
Apply by April 1 to Student Financial Services.

Donor(s): C.M. and D.J. Switzer
Qualification(s): One to a student who has completed semester 2 of the Diploma in Agriculture program and one to a student who has completed semester 4 of a degree program in OAC Recipients will have a minimum of 70% standing and have demonstrated outstanding leadership ability in OAC student organizations, class executives and College Royal.
Amount: 2 awards of $2,000

C.W. Riley Prize [C0246]
The C.W. Riley Prize was established by a number of his friends and associates. Application not required.

Donor(s): Friends and associates of C.W. Riley
Qualification(s): Student who, on graduation from Agricultural Economics, Agricultural Business or Resource Economics and Rural Development major, attains the highest proficiency in the area subjects.
Amount: 1 award of $375

Canadian Agri-Marketing Association (Ontario) Scholarship [I0541]
Provided by the Canadian Association of Agri-Marketing Association (Ontario). Apply to the OAC awards Committee by April 1 with a summary of participation in the Ag Ec & Biz Society and in agri-marketing initiatives as well as a letter of recommendation from a faculty member.

Donor(s): Canadian Agri-Marketing Association (Ontario)
Qualification(s): Student who has completed a minimum of 10.0 credits with a minimum cumulative average of 70% who are members of OAC and the Ag Ec & Biz Society. Selection will be based on a combination of academic achievement and a demonstrated interest in agri-marketing.
Amount: 1 award of $1,500

Canadian Association of Agri-Retailers Scholarship [I0444]
Provided by the Canadian Association of Agri-Retailers. Apply to Student Financial Services by April 1.

Donor(s): Canadian Association of Agri-Retailers
Qualification(s): Student who has completed semesters 4, 5, or 6 in B.SC.(Ag.) or B.Com., Agricultural Business major, with a minimum 70% average in the previous 2 semesters of full-time equivalent study, participated in extracurricular activities, and has an interest in the input supply industry in agriculture.
Amount: 2 awards of $250

Charles McGowan Memorial Prize [C0187]
Fund established in memory of the late Lieutenant Charles McGowan. Application not required.

Donor(s): Charles McGowan Memorial Fund
Qualification(s): Outstanding graduating student in an OAC degree program.
Amount: 1 award of $300

City of Guelph 175th Anniversary Awards [I0515]
Provided by the Guelph Community Foundation, in celebration of the 175th anniversary of the City of Guelph in 2002, as an investment for future generations. Apply to Student Financial Services, by October 7 of the second year of study, with a letter describing Guelph community and University community volunteer activities and extracurricular activities, a completed Need Assessment Form, and two reference letters not to exceed two pages in length from individuals familiar with the volunteer and/or community service contributions. Award may be held only once.

Donor(s): The Guelph Community Foundation
Qualification(s): Undergraduate degree students with more than 5.0 credits and less than 10.5 credits of full-time study must have maintained a cumulative 70% average in all courses completed (5.0 credits or more) in the first year study and have demonstrated leadership and financial need. Applicants must be graduates of a City of Guelph high school and be Canadian citizens or permanent residents at the time of application. Selection will include equally weighted consideration of academic performance, leadership both on and off campus and financial need.
Amount: 1 award of $1,000

Class of ‘51 OAC Leadership Awards [C0063]
Established by Year ‘51 OAC, on the occasion of its 45th anniversary. At the discretion of the OAC Awards Committee students may be selected before graduation. Application not required.

Donor(s): Year ‘51 OAC
Qualification(s): Students graduating from the degree program in a major in an OAC department who have a 70% standing in the final year of study and who have demonstrated leadership in the College or University extracurricular activities.
Amount: 4 awards of $1,000

Class of ‘67 OAC Centennial Scholarship [I0067]
Apply to Student Financial Services by April 1.

Donor(s): Class of OAC ‘67
Qualification(s): Student majoring in an OAC department who through activity in all branches of college life as well as scholastic achievement has made an outstanding contribution to the University.
Amount: 1 award of $1,000
**Class of 1905 Scholarship [I0060]**

Established by the graduating class of 1905. Apply to Student Financial Services, by April 1.

**Donor(s):** Graduating Class of 1905  
**Qualification(s):** Student who has completed 15.0 course credits, is registered in a major in an Ontario Agricultural College, is considered to be the most outstanding student in the class and who, through activity in all branches of college life, as well as proficiency in scholarship during the program, has done most for the college, for fellow students and for personal development.  
**Amount:** 1 award of $300

**Class of 1970 Scholarship [I0424]**

Established by the Silver Anniversary celebrants to commemorate the 25th anniversary of the University Class of 1970. This award rotates among all six colleges on the main campus. The appropriate College Award Committee selects the candidate each Fall semester and the candidate is announced each October. Application not required.

**Donor(s):** Class 1970: 25th Reunion Gift  
**Qualification(s):** Outstanding student in any degree program who has attained at least an 80% average in two consecutive semesters resulting in placement on the Deans' Honours List.  
**Amount:** 1 award of $1,400

**Collins Barrow Award [I0040]**

Offered by Collins Barrow, a national firm of Chartered Accountants. Awarded in the Winter semester. Application not required.

**Donor(s):** Collins Barrow Chartered Accountants  
**Qualification(s):** Student with the highest grade in course AGEC*3330, Intermediate Accounting, in the Fall semester. In the event of a tie, the scholarship will be given to the student with the highest cumulative average in their program.  
**Amount:** 1 award of $500

**CSAHS Student Volunteer Scholarship [I0482]**

Inspired by Theresa Firestone, FACCS '78, and funded by the Harshman Fellowships Society and Pfizer Canada Inc., Students may apply on their own or be recommended by other students, faculty members or administrators from non-profit organizations. Applications are available from the CSAHS Dean's Office. Apply to the CSAHS Dean's Office with a completed application form, a summary letter outlining the student's volunteer experience and what has been gained or learned from this experience that has enhanced his/her personal growth and/or career goals, and 2 letters of recommendation by April 1. This scholarship will be awarded to the Student Volunteer of the year to help defray the costs associated with volunteerism. One award of $350 (an equal amount will be awarded to the charitable organisation of the recipients choice).

**Donor(s):** Harshman Fellowship Society and Pfizer Canada Inc.  
**Qualification(s):** Full-time undergraduate students in any degree program offered by the College of Social and Applied Human Sciences and have completed at least 15 course credits with a minimum cumulative 70% average.  
**Amount:** 1 award of $350

**David F. Boyes Apiculture Scholarship [I0031]**

Established in memory of David Boyes a technician in the Apiculture Field Laboratory. Application not required.

**Donor(s):** The Apiculture Club  
**Qualification(s):** Student registered in the Fall semester who achieves high academic standing in Introductory Apiculture (ENVB*2210) in the previous year, demonstrates an interest in apiculture and who has participated in extracurricular activities.  
**Amount:** 1 award of $150

**Dawn Morris Memorial Award [C0361]**

Offered in memory of Dawn Morris, who spent 35 years in farm show business and was former Manager of the Canadian International Farm Equipment Show in Toronto. Students are encouraged to submit information on extracurricular activities to Student Financial Services, by April 1.

**Donor(s):** The Family of Dawn Morris  
**Qualification(s):** Student who is graduating from the Agricultural Business major of the B.Comm. degree or the Agricultural Economics major in the B.Sc.(Agri.) degree with a minimum 'B+' average. Selection will be on the basis of relevant course work in agricultural marketing, extracurricular participation and employment activities.  
**Amount:** 1 award of $1,500

**Dorothy Britton Memorial Scholarship [I0015]**

Scholarships are funded from donations from the estate of Dorothy Britton (MAC '79). Awarded on the basis of high academic achievement. Application not required.

**Donor(s):** The Estate of Dorothy Britton  
**Qualification(s):** Students entering semesters 4 or 5 of the B.A.S.C. program or the School of Hospitality and Tourism Management, Housing and Real Estate Management or Marketing Management majors of the B.COMM. program are eligible.  
**Amount:** 6 awards of $1,500

**Dorothy Shantz Memorial Scholarship - Fourth Year [I0256]**

Established by the Canadian Hospitality Foundation. Apply to the HTM Awards Committee by January 31 using an in-course scholarship application form. Awarded in the Winter semester. One award of $1,000 and an engraved plaque.

**Donor(s):** Canadian Hospitality Foundation  
**Qualification(s):** Student registered in a major offered by the School of Hospitality and Tourism Management who has completed at least 15.00 credits (normally in the eighth semester) with a minimum 70% cumulative average and who shows enthusiasm for the food service industry. The recipient must have demonstrated leadership ability by holding an executive position on a student organization of the School of Hospitality and Tourism Management.  
**Amount:** 1 award of $1,000, 1 Engraved Plaque

**Dorothy Shantz Memorial Scholarship - Third Year [I0496]**

Established by the Canadian Hospitality Foundation. Apply to the HTM Awards Committee by January 31 using an in-course scholarship application form. Awarded in the Winter semester. One award of $1,000 and an engraved plaque.

**Donor(s):** Canadian Hospitality Foundation  
**Qualification(s):** Student registered in a major offered by the School of Hospitality and Tourism Management who has completed at least 11.00 credits (normally in the seventh semester) with a minimum 70% cumulative average and who shows enthusiasm for the food service industry. The recipient must have demonstrated leadership ability by holding an executive position on a student organization of the School of Hospitality and Tourism Management.  
**Amount:** 1 award of $1,000, 1 Engraved Plaque

**Dr. John E. Kean Scholarship [I0447]**

Established by the Canadian Standards Association as a gift on the occasion of Dr. Kean's retirement as President and CEO of the Canadian Standards Association (now CSA International). Dr. Kean received an honorary Doctor of Laws degree from the University of Guelph in 1997. Apply with a letter highlighting interest in management, consumer interests, and/or environmental considerations of Canadian business as well as leadership potential and a completed in-course award application form by April 1 to the Chair of the Department of Marketing & Consumer Studies Awards Committee.

**Donor(s):** CSA International  
**Qualification(s):** Student with a minimum of 10.0 credits in the Marketing Management major of the B.Comm. program. Preference will be given to a co-op student.  
**Amount:** 1 award of $500
IX. Scholarships and Other Awards, Bachelor of Commerce 109

Frank Hughes Memorial Scholarship [I0552]
Offered by Frank Hughes and Sons Ltd., a multi-faceted processor of foods. Apply to HTM Awards Committee by January 31 including a résumé and statement of interest in the food service industry.

Donor(s): Frank Hughes and Sons Ltd.
Qualification(s): Student who has demonstrated an interest in the food service industry, has maintained a minimum of 'B' average and has completed 7.00 to 10.50 credits of a major offered by the School of Hospitality and Tourism Management. The scholarship will be awarded on the basis of interest in food service operations and academic standing. Interest in the food service industry can be demonstrated by work experience or active membership in the Canadian Food Service Executive Professionals (CAFP, formerly CFSEA).
Amount: 1 award of $1,000

Ellen Nilsen Memorial Award [I0047]
Offered by the friends of Ellen Nilsen. Apply to the Director of the Collaborative International Development Studies Programme, Rm 702 MacKinnon Building, by October 7.

Donor(s): The Friends of Ellen Nilsen
Qualification(s): Academically outstanding woman from a developing country who is registered at the University of Guelph in an undergraduate or a graduate program and who has demonstrated a commitment to social change.
Amount: 1 award of $1,500

Evelyn Matheson Pepper Memorial Scholarship [I0538]
The daughters and grandchildren of Evelyn Matheson Pepper, a Mac '33 graduate, provide this scholarship. Application not required.

Donor(s): Ms. Barbara Stuart and Ms. Susan Pepper
Qualification(s): Student who achieves the highest grade in the course FRHD*3200, Practicum in Child, Youth and Family I, offered by the department of FRAN.
Amount: 1 award of $1,000

Frank Hughes Memorial Scholarship [I0552]
Pannell Kerr Forster (PKF) Consulting Inc. provides this award to a student in the B.Comm program in any major offered by the School of Hospitality and Tourism Management. The winner will be chosen on the basis of three criteria: 1) industry work experience; 2) academic achievement; and 3) extracurricular involvement. Apply to the School of Hospitality and Tourism Management Awards Committee by January 31st using the HTM Awards Application Form. Include a resume outlining relevant industry work experience and a detailed list of extracurricular involvement.

Donor(s): Pannell Kerr Forster (PKF) Consulting Inc.
Qualification(s): Full-time student B.Comm program in any major offered by the School of Hospitality and Tourism Management who has completed between 11.0 and 14.5 course credits.
Amount: 1 award of $1,000

G.H. Mann Food Service Scholarship [I0174]
Preference will be given to a student who has contributed to the on going success of the Hospitality Services Department of the University. Apply to the HTM Awards Committee by January 31.

Donor(s): G.H. Mann Memorial Fund and M. Mann of Guelph
Qualification(s): Student who is registered in semester 8 of the B.Comm. program, in a major offered by the School of Hospitality and Tourism Management, and has a minimum cumulative average of 70%. In addition, the recipient will have an interest in, and have participated in, activities conducive to a career in the food service industry.
Amount: 1 award of $300

George A. Gray OAC '51 Varsity Scholarships [I0487]
Established in memory of George Gray, OAC '51, a Guelph football lineman and a great player of the game. Apply to Student Financial Services by October 7 providing a covering letter describing on- and off-campus academic and extra-curricular activities and a completed Need Assessment Form. Awarded at the annual Athletics Banquet.

Donor(s): Mrs. George A. Gray
Qualification(s): Undergraduate degree or diploma students who are members of varsity teams and in the second, third, fourth or fifth year of full-time study with a minimum 70% average in all courses completed in the previous year of study and have demonstrated leadership. Selection will include equally weighted consideration of academic performance, leadership and financial need. Preference will be given to members of the varsity football team. Examples of leadership may include academic tutoring, mentoring team mates, assisting in the organization and promotion of varsity and/or intramural athletics, participation on university committees, such as in residences, on Senate or in Colleges, and similar off-campus activities. Students may receive the award up to four times.
Amount: 2 awards of $1,250

George D. Bedell Prize [C0352]
The HTM Student's Council presents a plaque to a graduating student of the School in honour of George D. Bedell, the first director of the School of Hospitality and Tourism Management. Recipient selected in the Winter semester by the HTM Awards Committee which will conduct an election with the graduating class. Application not required.

Donor(s): The HTM Students' Council
Qualification(s): Student graduating from the B.Comm. program, in a major offered by the School of Hospitality and Tourism Management who, in the minds of his or her fellow students, has demonstrated the outstanding leadership, versatility of interests and involvement in community affairs, both within and outside the School, that exemplifies the sense of professionalism to which the fourth year students have dedicated themselves.
Amount: 1 Plaque

Gerhard Scherf Memorial Scholarship [I0252]
Established by the former College of Family and Consumer Studies Student Association Council (FACS SAC) in memory of Professor Scherf, a former faculty member in the Department of Marketing & Consumer Studies. Apply to the CSAHS Awards Committee by April 1 with a detailed list of extracurricular activities.

Donor(s): FACS Student Administrative Council
Qualification(s): Student who has successfully completed 10.00 credits in the B.A.SC. program or a major offered by the School of Hospitality and Tourism Management or the Department of Marketing & Consumer Studies. Applicants must have a minimum average of 70% in the last two full-time semesters and have made an outstanding contribution to the College of Social and Applied Human Sciences. Student must have served for at least one year on the board of directors of the CSAHS Student Alliance or participated in other College activities.
Amount: 1 award of $200

Gonder Family Centre for Students with Disabilities Volunteer Award [I0563]
In recognition of the many students who volunteer their time and talents to assist their colleagues registered with the Centre for Students with Disabilities (CSD) and to encourage others to do so, Dr. John and Mrs. Katherine Gonder provide this award to a student who has volunteered in the CSD. The award will be made on the basis of the volunteer activities undertaken by the student at the CSD, one letter of reference, and a personal statement that outlines the time commitment and types of volunteer activities undertaken as well as an indication of how this was a valuable and rewarding volunteer experience. Apply by January 15th to the CSD (c/o Advisor to Students with Disabilities) by submitting above documentation.

Donor(s): Dr. John and Mrs. Katherine Gonder
Qualification(s): All students registered in the College of Social and Applied Human Science (CSAHS) that have completed between 10.0 and 15.0 course credits with a minimum 70% cumulative average, and have been involved as volunteers with the CSD.
Amount: 1 award of $900

Governor General's Medal [C0044]
Established by the Office of the Governor General of Canada. Application not required.

Donor(s): The Chancellery
Qualification(s): Restricted to those undergraduate students in any degree program who are graduating in June, or who have graduated in the previous two convocations, with the highest cumulative average.
Amount: 1 Silver medal
### Guelph Varsity Athletic Accessibility Scholarship [I0518]
Established by alumni and friends of the University of Guelph. Apply to Student Financial Services by October 7 providing a covering letter describing on- and off-campus academic and extra-curricular activities and a completed Need Assessment Form. Awarded at the annual Athletics Banquet.

**Donor(s):** Alumni and friends of the University of Guelph  
**Qualification(s):** Undergraduate degree or diploma students, with at least 5.0 credits and less than 20.5 credits, who are members of a varsity athletic team and who have demonstrated financial need, are eligible to apply.  
**Amount:** 2 awards of $1,250

### Hafa Alumni Association Life Membership Prize [C0351]
Established by the School's Alumni Association in recognition of student involvement in the life of the School of Hospitality and Tourism Management and/or the University. Apply by January 31 using the standard application form attaching a résumé and detailed list of extracurricular activities to the HTM Awards Committee. The recipient will receive this award after graduation. One life membership in the Hafa Alumni Association.

**Donor(s):** The HTM Alumni Association  
**Qualification(s):** Awarded to a graduating B.Comm. student, in a major offered by the School of Hospitality and Tourism Management who has at least a 70% average. Selection will be based on extracurricular activities.

**Amount:** 1 Life-time membership for the Hafa Alumni Association

### James MacMillan Memorial Scholarship [I0494]
Established in memory of James MacMillan, his great uncle, by Austin Conway of Toronto. Apply with a completed Need Assessment Form to Student Financial Services by October 7.

**Donor(s):** Austin Conway  
**Qualification(s):** Kemptville College graduate with high academic standing (a minimum 75% cumulative average) who registers in the O.A.C. degree program in Agriculture or in Agriculture and Business. Financial need may also be considered.  
**Amount:** 1 award of $2,500

### Janet M. Wardlaw Medal [C0096]
Application not required.

**Donor(s):** Faculty, staff, alumni and students, formerly FACS  
**Qualification(s):** Presented to the Winegard Medal nominee selected from candidates from the Department of Marketing & Consumer Studies, the Department of Family Relations and Applied Human Nutrition and the School of Hospitality and Tourism Management.

**Amount:** 1 Medal

### Jean Carter Memorial Gerontology Scholarship [I0488]
Established by the family and friends of Jean Carter, a Mac’ 38 graduate who was actively involved in the life of the College and the University. Apply by letter to the CSAHS Undergraduate Awards Committee, Dean's Office by April 1st, including a statement that outlines the student's experience working with the elderly in a volunteer capacity as well as extracurricular involvement the student may have and two letters of reference, one of which should be from someone who can speak to the student's volunteer experiences with the elderly, while the other should comment on the extracurricular activities of the student.

**Donor(s):** Mr. Robert N. Carter and Family  
**Qualification(s):** Undergraduate student in the CSAHS who has completed at least 10.0 credits with a minimum 70% cumulative average and has made a significant contribution to the care of the elderly. Preference will be given to students in the B.A.SC. program majoring in Gerontology.

**Amount:** 1 award of $1,000

### Jim Stokman Memorial Scholarship [I0386]
Mrs. Stokman and family, including her sons Nick (O.A.C.'77) and Andrew (O.A.C.'84) have established this award in memory of her husband and their father to recognize his lifetime contribution to the family farm. Apply to Student Financial Services by April 1.

**Donor(s):** Mrs. Jim Stokman  
**Qualification(s):** Available to O.A.C. students who have completed 5.0 credits with at least 'B' average in one of the following programs: B.SC.(Agr.), B Comm., B.Sc. or B.Sc.(Env.). Students must have come from a rural background and have demonstrated community/student involvement both during high school and the first two semesters of University.

**Amount:** 1 award of $600

### Joan Doherty Memorial Graduate Scholarship [C0090]
A scholarship has been established in memory of Joan Doherty, Class of ’78, by her family. An application, accompanied by a one-page written statement indicating the student's purpose, goals and objectives in pursuing graduate study, must be submitted to the Marketing & Consumer Studies Awards Committee Awards Committee by February 1.

**Donor(s):** Mr. Thomas B. Doherty  
**Qualification(s):** Member of the graduating class in Marketing & Consumer Studies who will be continuing his or her education at the Master's or Doctoral degree level in a Canadian university. The scholarship recipient will be determined on the basis of academic promise as evidenced by undergraduate academic achievement. Should equally qualified students make application for the scholarship, preference will be given to previous winners of the Joan Doherty Memorial Scholarship.

**Amount:** 1 award of $2,000

### Hotel Human Resource Professionals Association of Greater Metropolitan Toronto Award [I0445]
Apply by January 31 to the HTM Awards Committee using the in-course application form including a résumé and a report on the work experience or project.

**Donor(s):** Hotel Human Resource Professionals of Greater Metropolitan Toronto  
**Qualification(s):** Student in the School of Hospitality and Tourism Management who has at least a combined B+ average in the courses Organizational Design and Effectiveness (HTM*2200) and Human Resource Management (HTM*3000). As well, the student must have either work experience in the human resource area, or have worked in the hospitality and tourism industry (and have successfully completed a human resource-related project either on the job or in the relevant course work)

**Amount:** 1 award of $750

### James MacMillan Memorial Scholarship [I0494]
Established in memory of James MacMillan, his great uncle, by Austin Conway of Toronto. Apply with a completed Need Assessment Form to Student Financial Services by October 7.

**Donor(s):** Austin Conway  
**Qualification(s):** Kemptville College graduate with high academic standing (a minimum 75% cumulative average) who registers in the O.A.C. degree program in Agriculture or in Agriculture and Business. Financial need may also be considered.  
**Amount:** 1 award of $2,500

### Janet M. Wardlaw Medal [C0096]
Application not required.

**Donor(s):** Faculty, staff, alumni and students, formerly FACS  
**Qualification(s):** Presented to the Winegard Medal nominee selected from candidates from the Department of Marketing & Consumer Studies, the Department of Family Relations and Applied Human Nutrition and the School of Hospitality and Tourism Management.

**Amount:** 1 Medal

### Jean Carter Memorial Gerontology Scholarship [I0488]
Established by the family and friends of Jean Carter, a Mac’ 38 graduate who was actively involved in the life of the College and the University. Apply by letter to the CSAHS Undergraduate Awards Committee, Dean's Office by April 1st, including a statement that outlines the student's experience working with the elderly in a volunteer capacity as well as extracurricular involvement the student may have and two letters of reference, one of which should be from someone who can speak to the student's volunteer experiences with the elderly, while the other should comment on the extracurricular activities of the student.

**Donor(s):** Mr. Robert N. Carter and Family  
**Qualification(s):** Undergraduate student in the CSAHS who has completed at least 10.0 credits with a minimum 70% cumulative average and has made a significant contribution to the care of the elderly. Preference will be given to students in the B.A.SC. program majoring in Gerontology.

**Amount:** 1 award of $1,000

### Jim Stokman Memorial Scholarship [I0386]
Mrs. Stokman and family, including her sons Nick (O.A.C.'77) and Andrew (O.A.C.'84) have established this award in memory of her husband and their father to recognize his lifetime contribution to the family farm. Apply to Student Financial Services by April 1.

**Donor(s):** Mrs. Jim Stokman  
**Qualification(s):** Available to O.A.C. students who have completed 5.0 credits with at least 'B' average in one of the following programs: B.SC.(Agr.), B Comm., B.Sc. or B.Sc.(Env.). Students must have come from a rural background and have demonstrated community/student involvement both during high school and the first two semesters of University.

**Amount:** 1 award of $600

### Joan Doherty Memorial Graduate Scholarship [C0090]
A scholarship has been established in memory of Joan Doherty, Class of ’78, by her family. An application, accompanied by a one-page written statement indicating the student's purpose, goals and objectives in pursuing graduate study, must be submitted to the Marketing & Consumer Studies Awards Committee Awards Committee by February 1.

**Donor(s):** Mr. Thomas B. Doherty  
**Qualification(s):** Member of the graduating class in Marketing & Consumer Studies who will be continuing his or her education at the Master's or Doctoral degree level in a Canadian university. The scholarship recipient will be determined on the basis of academic promise as evidenced by undergraduate academic achievement. Should equally qualified students make application for the scholarship, preference will be given to previous winners of the Joan Doherty Memorial Scholarship.

**Amount:** 1 award of $2,000

### Hotel Human Resource Professionals Association of Greater Metropolitan Toronto Award [I0445]
Apply by January 31 to the HTM Awards Committee using the in-course application form including a résumé and a report on the work experience or project.

**Donor(s):** Hotel Human Resource Professionals of Greater Metropolitan Toronto  
**Qualification(s):** Student in the School of Hospitality and Tourism Management who has at least a combined B+ average in the courses Organizational Design and Effectiveness (HTM*2200) and Human Resource Management (HTM*3000). As well, the student must have either work experience in the human resource area, or have worked in the hospitality and tourism industry (and have successfully completed a human resource-related project either on the job or in the relevant course work)

**Amount:** 1 award of $750
<table>
<thead>
<tr>
<th>Scholarship Name</th>
<th>Details</th>
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</thead>
<tbody>
<tr>
<td>John Deere Foundation of Canada Scholarship [I0516]</td>
<td>Established through the generosity of The John Deere Foundation of Canada to recognize academic excellence. Application not required. Donor(s): The John Deere Foundation of Canada Qualification(s): Student registered in the B.SC.(Agr.), B.SC.(Agr.) Agricultural Economics, B.SC.(Agr.) Agronomy, B.A. Agricultural Economics, or B.Comm. Agricultural Business program who has completed a minimum of 15.0 credits. Selection will be based on the student with the highest cumulative average. A student may receive this award once only. Amount: 1 award of $2,000</td>
</tr>
<tr>
<td>John Eccles Scholarship [I0909]</td>
<td>Nominations, accompanied by appropriate résumés, are to be submitted to Student Financial Services by April 1. Donor(s): Student Housing Services Qualification(s): Full-time student registered in semester 2, 3, 4, 5 or 6 and living in residence in the Winter semester who has a cumulative 80% average or who is in the top 10% of his/her program. The recipient must have demonstrated responsibility and leadership qualities through participation in residence related activities. Residence Life Staff and paid members of Interhall Council and Hall Councils are not eligible. Amount: 1 award of $600</td>
</tr>
<tr>
<td>Kae and Gordon Skinner Memorial Scholarship [C0258]</td>
<td>Provided by the late Kae Stalker Skinner (Mac '30) and Gordon Skinner (O.A.C.'24), former Registrar of the Ontario Institute of Agrologists. Consideration will be given to participation in the Student Branch of the Ontario Institute of Agrologists. Apply to Student Financial Services by April 1. Donor(s): The estates of the late Mr. and Mrs. A.G. Skinner Qualification(s): O.A.C. student graduating from the B.SC.(Agr.), B.SC., or B.Comm. programs who has made a significant contribution to developing an understanding of the profession of agrology among fellow students. Amount: 1 award of $750</td>
</tr>
<tr>
<td>Katherine Fuller Scholarship [I0107]</td>
<td>Established by Macdonald Institute Alumni in 1931 to honour Mrs. Katherine Fuller, the Superintendent of Macdonald Hall from 1904 until her retirement in 1931, and offered by the Mac-FACS Alumni Association. Application not required. Donor(s): Macdonald Institute Alumni Association Qualification(s): Full-time student in the B.A.SC. program or the Marketing Management or Housing and Real Estate Management major of the B.COMM. program, who has completed between 5.0 and 10.0 course credits and has demonstrated a high level of academic achievement. Amount: 1 award of $500</td>
</tr>
<tr>
<td>Kenneth W. Hammond Award [I0045]</td>
<td>The evaluation of the student will be based on the final essay in the &quot;Environmental Perspectives and Human Choice: 5000 Days&quot; course. The selection committee will be comprised of 4 persons: the donor, the Director of the Arboretum, the Dean of Physical and Engineering Science and the Dean of Biological Science. Application not required. Donor(s): Kenneth W. Hammond Qualification(s): Student who has best demonstrated an understanding of the world's resource situation and its proper use by humankind. Amount: 1 award of $1,000</td>
</tr>
<tr>
<td>Kip Hunter Prize [I0139]</td>
<td>For the best essay, written by an undergraduate in a philosophy course. The essay may be either a required assignment for a course (in which case either the student or the instructor may submit it) or it may be specially prepared for the competition. Submission of essays is to the Chair, Department of Philosophy, by the end of the 12th week of the Winter semester. Donor(s): Faculty, students and staff of the Philosophy Department Qualification(s): Any undergraduate who has registered for a philosophy course during the academic year in which the prize is awarded. Amount: 1 Book prize</td>
</tr>
<tr>
<td>Leo Lecours Memorial Award [I0542]</td>
<td>Provided by Lecours, Wolfson, a Canadian hospitality management and chef recruitment firm provides this scholarship in memory of Leo Lecours.. Apply to the HTM Awards Committee by January 31, using the HTM Awards Application form. Include a 500-word statement on career goals and objectives. The faculty of the School of Hospitality and Tourism Management will also be invited to nominate deserving students and to provide information on the nominees. Nominees will be invited to submit the 500-word statement. Donor(s): Norman Wolfson Qualification(s): Student in the B.Comm. program, in a major offered by the School of Hospitality and Tourism Management, who has the greatest potential contribution to the School and/or the hospitality industry. Particular attention will be paid to those applicants and nominees who are keenly focussed on and enthusiastic about a career in the hospitality industry. Amount: 1 award of $500</td>
</tr>
<tr>
<td>Leonard Conolly Exchange Student Scholarship [I0446]</td>
<td>Established by students, faculty, staff and friends to honour Prof. Leonard Conolly, professor of drama, Chair of the Department of Drama, 1981-88, and Associate Vice-President Academic, 1988-1992. Apply to the Centre for International Programs by April 5, for visiting during the subsequent Fall or Winter semesters. Donor(s): Students, staff, faculty and friends of Dr. Leonard Conolly Qualification(s): Full-time visiting exchange undergraduate or graduate student, registered at Guelph for at least one semester, from any country in the South (a list of eligible countries and exchange partner universities is available in the Centre for International Programs). Selection, by the Centre for International Programs, will be based on assessment of (a) a one-page submission describing the significance of the student visiting Guelph to the program at the partner university (b) two faculty references of one-page each, and (c) consistent high performance in the course work completed, as documented by a transcript of program grades to date, submitted by the home university. Amount: 1 award of $1,000</td>
</tr>
<tr>
<td>Mac '41 Marketing Scholarship [I0214]</td>
<td>Application not required. Donor(s): Mac '42 c/o Association Director, annual Giving Qualification(s): B.Comm. student registered in the Marketing Management major who has completed the course &quot;Economic Behaviour of Households (COST<em>3100). The recipient of the award will have received the highest grade in COST</em>3100 in the previous year. Amount: 1 award of $300</td>
</tr>
<tr>
<td>Mac-FACS Alumni Association Scholarship - Marketing and Consumer Studies [I0523]</td>
<td>Offered by the Mac-FACS Alumni Association. Awarded in the Fall semester. Application not required. Donor(s): Mac-FACS Alumni Association Qualification(s): Full-time student in the Department of Marketing &amp; Consumer Studies who has completed between 5.0 and 10.0 credits with the highest cumulative average above 80%. Amount: 1 award of $500</td>
</tr>
<tr>
<td>O.A.C. Students' Federation Medal [C0217]</td>
<td>Application not required. Donor(s): OAC Qualification(s): Graduating student in an undergraduate degree program in a major in an OAC department who has been an outstanding leader in student activities at the College level throughout his or her University career. Amount: 1 Medal</td>
</tr>
<tr>
<td>OAC '45 Public Speaking Awards [C0200]</td>
<td>Offered by the Class of '45 O.A.C., on the occasion of their 40th anniversary. Application not required. Donor(s): Year '45 OAC Qualification(s): Graduating students in the B.SC.(Agr.) or B.Comm. Agricultural Business programs who have demonstrated proficiency in public speaking and communication. Amount: 2 awards of $1,000</td>
</tr>
</tbody>
</table>
Oxford County Pork Producers Scholarship (Degree) [I0531]
Provided by the Oxford County Pork Producers. Apply to Student Financial Services by April 1.

Qualification(s): Any student who has completed a minimum of 5.0 credits in an OAC degree program or students enrolled in the B.Sc.(Eng.) program and have completed semester 4. Recipients will have made an outstanding contribution to College life through academic proficiency and participation in extracurricular activities and can be considered to have done the most for the College for fellow students and in their personal development. Recipients must have a 70% minimum cumulative average.

Amount: 1 award of $2,000

OAC Centennial Graduate Fellowships [C0209]
The Ontario Agricultural College celebrated its 100th Anniversary in 1974. Many organizations and companies associated with the agricultural industry provided funds in conjunction with the Centennial activities. Funds have been established in perpetuity as a permanent commemoration of the Centennial of the College. Apply to Student Financial Services by April 1.

Qualification(s): Students graduating from a degree program administered by the Ontario Agricultural College and who plan to pursue graduate studies in any department or school of the Ontario Agricultural College in the year of baccalaureate graduation are eligible for these fellowships. The fellowship will be based on academic achievement in semesters 7 and 8, as well as participation in extracurricular activities throughout the student's university career.

Amount: 3 awards of $800

Ontario Women's Institute Scholarship [I0160]
Offered by the Federated Women's Institute of Ontario. Apply to Dean's Office, College of Social and Applied Human Sciences, by April 1.

Qualification(s): Students from Ontario who have completed 4.0 to 6.0 course credits in either the B.A.Sc.(Eng) or B.Com. degree with a major in Agricultural Business, or semester 2 of the Diploma in Agriculture program. One scholarship will be awarded to a student with the highest average in the 2 courses Financial Management and who has contributed to extracurricular activities. If other qualifications are equal, preference will be given to students who have participated in the Ontario 4-H program and/or students whose mothers are Women's Institute members.

Amount: Several awards of $500

Ontario Agricultural Co-operatives Scholarship [I0289]
These annual scholarships are provided by Ontario Agricultural Co-operatives. The award may be held once only. Apply to Student Financial Services by April 1.

Qualification(s): Students who have completed semester 4 or 6 of the B.Sc.(Agr.) degree or B.Com. degree with a major in Agricultural Business, or semester 2 of the Diploma in Agriculture program. One scholarship will be awarded to a student with the highest cumulative average of 70% and have demonstrated leadership and involvement in one or more of extracurricular activities, community service, or agricultural employment.

Amount: 2 awards of $2,200

Peter Mann Award for Embryology [I2032]
Provided by colleagues and friends of Dr. Mann, a scholar and teacher of Embryology from 1954-1987. Application not required.

Donor(s): Colleagues and friends of Dr. Mann

Qualification(s): Student from any degree program completing the course BIOM*3040 Biomedical Embryology, with the highest academic standing.

Amount: 1 award of $100

Purchasing Management Scholarship [I0458]
Established by the Greater Wellington District, Purchasing Management Association of Canada (PMAC) to promote awareness of its organization. Application not required. One award of $750 and free attendance at three meetings of PMAC.

Donor(s): Greater Wellington District Purchasing Management Association of Canada

Qualification(s): Student in the B.Comm. program in a major offered by the School of Hospitality and Tourism Management, who has obtained the highest grade in HTM*2000 Hospitality Purchasing Management. The scholarship will be awarded in the Fall semester provided the recipient remains a full-time student registered in a major in the School of Hospitality and Tourism Management (B.Comm.).

Amount: 1 award of $750

Shirley Louie Memorial Scholarship [I0392]
Offered by the Canadian College and University Food Services Association (CCUFSA) to honour Shirley Louie, a long-time member. Apply by January 31 providing a 500 word statement on your reasons for interest in the food service industry, a résumé and any information you think that the HTM Awards Committee should take into consideration.

Donor(s): Canadian College and Universities Food Services Association

Qualification(s): Students in the B.Comm program in a major offered by the School of Hospitality and Tourism Management who have completed between 6.0 and 8.0 course credits and the Smart Serve certification program with the highest cumulative average.

Amount: 2 awards of $675

Smart Serve Ontario Scholarships [I0550]
Established by Smart Serve Ontario, a non-profit organization dedicated to promoting the responsible service of alcohol. Application not required.

Donor(s): Smart Serve Ontario

Qualification(s): Students who have completed the required courses in the responsible service of alcohol. Application not required.

Amount: 1 award of $500, and a free course enrolment in the first complete course to date and volunteer work at the Wellness Centre.

Society of Management Accountants of Ontario Scholarship [C0268]
The scholarship will be awarded at summer convocation. Application not required. One award of $500 and a free course enrolment in the first complete CMA subject enrolled in the Society's program.

Donor(s): Society of Management Accountants, Grand River Chapter

Qualification(s): Full-time student graduating from B.Com., B.A. (minor in Business Administration), or B.Sc. (minor in Business Administration), or B.Sc.(Agr.) (major in Agriculture Business or Agricultural Economics), with the highest average in the 2 courses Financial Accounting AGEC*2220 and Intermediate Accounting AGEC*3330.

Amount: 1 award of $500, and a free course enrolment in the first complete CMA subject enrolled in the Society's program

Stephanie Wilken Volunteer Award [I0449]
Established by the Wilken family in memory of Stephanie Wilken, BA 1995. Apply to Student Financial Services with letter indicating the kind and extent of volunteer activities at the Wellness Centre by October 1. Selection committee is the Senate Committee on Awards on the recommendation of the Student Wellness Educator at the Wellness Centre.

Donor(s): Bev and Darlene Wilken

Qualification(s): Student registered in any undergraduate degree program, who has been a volunteer for at least two semesters at the Wellness Centre. The recipient will be selected on the basis of academic performance in all courses to date and volunteer work at the Wellness Centre.

Amount: 1 award of $1,000

The Ontario Agricultural College celebrated its 100th Anniversary in 1974. Many organizations and companies associated with the agricultural industry provided funds in conjunction with the Centennial activities. Funds have been established in perpetuity as a permanent commemoration of the Centennial of the College. Apply to Student Financial Services by April 1.

Qualification(s): Students who have completed 4.00 to 6.00 course credits in either the B.A.Sc. (major in Agriculture Business or Agricultural Economics), or B.SC.(Agr.) (major in Agriculture Business or Agricultural Economics), with the highest cumulative average.

Amount: 2 awards of $2,200

Ontario Women's Institute Scholarship [I0160]
Offered by the Federated Women's Institute of Ontario. Apply to Dean's Office, College of Social and Applied Human Sciences, by April 1.

Qualification(s): Students from Ontario with a minimum cumulative average of 70% who have completed 4.0 to 6.0 course credits in either the B.A.Sc.(Eng) or B.Com. degree, or semester 2 of the Diploma in Agriculture program. One scholarship will be awarded to a student with the highest cumulative average of 70% and have demonstrated leadership and involvement in one or more of extracurricular activities, community service, or agricultural employment.

Amount: Several awards of $500
T.K. Warley Agrifood Policy Prize [I0212]
Established by Prof. T.K. Warley, former Chair of the Department of Agricultural Economics and a faculty member of the Ontario Agricultural College from 1970 to 1991. Application not required.

**Donor(s):** Professor T.K. Warley

**Qualification(s):** Student providing the best term paper written on a public policy issue relating to the agrifood system or rural society in courses such as AGEC*3030 Price and Production Analysis, AGEC*4000 Agricultural and Food Policy, and AGEC*4720 Special Study in Agricultural Economics.

**Amount:** 1 award of $500

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The Jack and Lillian MacDonald Scholarship [E0379]
Family, friends, and colleagues of Lillian MacDonald and Dr. Jack MacDonald, Vice-President, Academic, of the University of Guelph from 1986 to 1995, have established a scholarship that recognizes their commitment to increasing the accessibility of post-secondary education to aboriginal persons. Apply by letter to Student Financial Services by April 1.

**Donor(s):** Jack and Lillian MacDonald

**Qualification(s):** In the first instance, the award will be given to an entering student coming from the Grand River Polytechnical Institute (GRPI) and who has received the highest cumulative average in the Native University Access Program. If there is no entering student in any one year, the scholarship will be awarded to the in-course student who is a graduate of the GRPI who has the highest cumulative average at the University.

**Amount:** 1 award of $900

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Thomas H. Peters Scholarship [I0233]
Application not required.

**Donor(s):** Friends and associates of Thomas H. Peters

**Qualification(s):** Student in any academic program of the University who has completed courses in Land Reclamation (e.g. CROP*2280, SOIL*3200), with a minimum 10.0 credits completed. Applicants must have a minimum of 70% cumulative average and have demonstrated an interest and aptitude in the area of crops and land reclamation.

**Amount:** 1 award of $250

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Toronto District Beekeeper’s Association Scholarship [I0285]
A scholarship is offered by the Toronto District Beekeepers Association in memory of the late Hugh McLeod, past chair of the Association. Application not required.

**Donor(s):** Mr. Jack Robinson

**Qualification(s):** The recipient will have good academic standing, have participated in extracurricular activities, and demonstrated a keen interest in beekeeping.

**Amount:** 1 award of $500

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United Steelworkers LU4120 Scholarship [I0293]
Apply to Student Financial Services, by January 31.

**Donor(s):** United Steelworkers LU4120

**Qualification(s):** Student who is a member or former member, or who is from the immediate family of a member of United Steelworkers LU 4120, and who is entering semester 2, 3, or 4 of a degree or diploma program in the Winter semester. If there is more than one eligible candidate, the award will go to the one who has attained the highest relative class standing in his or her previous full-time semester, provided that a minimum of 70% standing is obtained.

**Amount:** 1 award of $800

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Van Stralen and Van Der Hoeven Memorial Scholarship [I0296]
Application will be made by nominations signed by 4 currently registered students forwarded to Student Financial Services by April 1. Presentations are made in the Fall semester.

**Donor(s):** Mr. & Mrs. J. Van Stralen & family and Mr. & Mrs. Hans Van Der Hoeven & family

**Qualification(s):** Students that have completed a minimum of 2.0 credits, but not more than 7.5 in the Winter term in any degree program who have obtained a minimum of 70% standing. Selection will be made on the basis of participation in university activities and in the student's home community as well as qualities of leadership, ambition and initiative.

**Amount:** 2 awards of $400

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W.C. Winegard Medal [C0311]
The W.C. Winegard Medal is the most prestigious graduating award of the University of Guelph. One student will be nominated by each College Awards Committee. The Senate Awards Committee will make the final selection and the medal will be awarded at Convocation in June. Application not required.

**Donor(s):** The Board of Governors of the University

**Qualification(s):** Graduating student who excels both academically and in extracurricular activities.

**Amount:** 1 Gold medal

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W.N. Vaughan Medal [C0299]
Prospective candidates will be nominated by Senators and the medal winner will be chosen by a committee selected by the Striking Committee. The medal will be awarded at Convocation in June. Application not required.

**Donor(s):** Friends of Walter N. Vaughan

**Qualification(s):** Student senator who has high academic standing and who has made a substantial contribution to student life and to the University, particularly through involvement in and commitment to Senate activities.

**Amount:** 1 Medal

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Walter M. Stewart Scholarships [I0273]
Established and offered through the W.C. Macdonald Company of Montreal. Application not required.

**Donor(s):** W.C. Macdonald Company

**Qualification(s):** Students with the highest cumulative average in the Marketing Management or Housing and Real Estate majors of the B.Comm program. Marketing and Consumer Studies major who are entering semester level 5, 6 or 7. Students may receive only one Walter M. Stewart Scholarship.

**Amount:** 2 awards of $400

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Warren Jestin Scholarship in Canadian Economic Policy [I0557]
Dr. Warren Jestin, a B.A. and M.A. economics graduate of the University of Guelph and a member of the University’s Board of Governors from 1997 to 2003, provides this award to a student registered in an honours degree in either the B.A program with a major in Economics or the B.Com program with a major in Management Economics in Industry and Finance. The award winner will have achieved the highest cumulative average across all economics policy courses taken. Application not required.

**Donor(s):** Warren Jestin

**Qualification(s):** Full-time registered in BAH.ECON or BCOM.MEIF that has completed a minimum of two credits in the 3000 and 4000 level courses oriented towards economic policy, has achieved a minimum average of 80% in those courses, and has completed at least 15.0 credits towards their degree completion.

**Amount:** 1 award of $600

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Waterloo-Wellington CA Association Award [I0367]

**Donor(s):** Waterloo-Wellington Chartered Accountants Association

**Qualification(s):** Student who achieves the highest academic standing in the course AGEC*3330, Intermediate Accounting.

**Amount:** 1 award of $100

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Westmont Hospitality Group Scholarship [I0126]
Awarded in the Winter semester. Apply to the HTM Awards Committee by January 31.

**Donor(s):** Journey’s End Corporation

**Qualification(s):** Student with a high academic standing who is registered in his/her final semester (normally in the eighth semester) in the B.Comm. (HTM) program. Participation and leadership in extracurricular activities at the University and in the hospitality industry are also considered.

**Amount:** 1 award of $900

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In-course Scholarships with Financial Need

3M Canada Scholarships [I0564]
Provided by 3M Canada. Apply to Student Financial Services by October 7 with a completed Financial Need Assessment Application.

**Donor(s):** 3M Canada Company

**Qualification(s):** Students entering Year 4 (ie. having completed a minimum of 15.0 credits) with demonstrated financial need and high academic achievement.

**Amount:** 2 awards of $1,000
Canada Bread Limited Scholarships [14509]

Provided annually by Canada Bread Limited with the assistance of the Ontario government's OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services, by October 7. Awarded in the Winter semester. ACCESS AWARD

**Donor(s):** Canada Bread Limited

**Qualification(s):** Students must have completed 13.00 to 17.50 credits in the B.Comm. program, in a major offered by the School of Hospitality and Tourism Management, at the time of application and have at least 70% average in the last two equivalent full-time semesters. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards). The scholarships will be awarded based on financial need.

**Amount:** 2 awards of $1,500

Cara Operations Scholarships [14503]

Provided by Cara operations, with the assistance of the Ontario government's OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services, by October 7. Awarded in the Winter semester. ACCESS AWARD

**Donor(s):** Cara operations Limited

**Qualification(s):** Students registered in a major offered by the School of Hospitality and Tourism Management, who have completed at least 4.0 credits but no more than 7.5 credits at the time of application and have at least a 70% average in the last two full-time equivalent semesters. Preference will be given to students with no more than 7.5 credits. Students must be registered full-time in the semester in which the award is received. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards). The scholarships will be awarded based on financial need.

**Amount:** 2 awards of $1,500, 2 awards of $1,000

Delta Hotels Limited Scholarship [14502]

Provided by Delta Hotels & Resorts Limited with the assistance of the Ontario government's OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services, by October 7. Awarded in the Winter semester. ACCESS AWARD

**Donor(s):** Delta Hotels Limited

**Qualification(s):** Students must be enrolled in a major offered by the School of Hospitality and Tourism Management, who have completed 8.00 to 12.50 credits at the time of application, and have at least a 70% average in the last two equivalent full-time semesters. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards). The scholarships will be awarded based on financial need. Preference will be given to students who have transferred from a community college.

**Amount:** 2 awards of $1,500

Eleanor Morgan & Bill Archibald Scholarships [14540]

The family of Eleanor and Bill Archibald, with the assistance of the Ontario government's OSOTF program, provide this scholarship in memory of their parents. Apply with a completed Need Assessment Form and a letter outlining community involvement to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

**Donor(s):** The Family of Eleanor & Bill Archibald

**Qualification(s):** Students registered in any program with a minimum of 5.0 credits who have cumulative 70% average, have demonstrated community involvement, and financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 1 award of $1,000

Erin Demers Memorial Scholarship [10406]

The family and friends of Erin Demers, a first-year student at the University of Guelph who was tragically killed in a car accident in 1996, have established this scholarship in her memory. Apply to Student Financial Services by April 1 with a completed Need Assessment Form, along with one supporting reference letter from a Residence Assistant, Residence Manager, or Residence Officer.

**Donor(s):** Family and friends of Erin Katrina Demers

**Qualification(s):** A student who has resided in an on-campus residence during the first semester and who has a cumulative average of 70%. This award is payable in the second year (ie completed 5.0 course credits) of study. Preference will be given to students with demonstrated financial need and who have participated significantly in extracurricular activities.

**Amount:** 1 award of $1,000

Euclid-Hitachi Scholarships [14517]

Established by Euclid-Hitachi of Canada Ltd., with the assistance of the Ontario government's OSOTF program, to assist students with financial need to continue their studies as full-time students. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

**Donor(s):** Euclid-Hitachi of Canada Ltd.

**Qualification(s):** Students who have a cumulative average of 70% with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 2 awards of $1,500

FACS '85 Heritage Scholarship [14537]

Established by the Class of FACS '85, with the assistance of the Ontario government's OSOTF program. Apply to Student Financial Services by October 7 with a completed Need Assessment Form and include a cover letter outlining the extent of community volunteerism or involvement in an on-campus student club, particularly as it relates to your area of study. ACCESS AWARD

**Donor(s):** The Class of FACS '85

**Qualification(s):** Student enrolled in either the B.A.S.C. program or the Marketing Management or Housing and Real Estate Management major of the B.COMM. program who has completed at least 10.0 course credits with a minimum 70% cumulative average and has a record of community and/or on-campus student club involvement. Preference will be given to the student who has been involved with community volunteerism or on-campus student club related to his or her area of study. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 1 award of $500

Four Seasons Hotels and Resorts ACCESS Scholarship [14533]

Established by Four Seasons Hotels and Resorts, with the assistance of the Ontario government's OSOTF program. Apply with a completed Need Assessment Form, one letter of reference from a previous or current employer in the hotel, food and tourism industry and a covering letter from the applicant that includes a statement of interest in the industry to Student Financial Services, by October 7. Awarded in the Winter semester. ACCESS AWARD

**Donor(s):** Four Seasons Hotels Ltd.

**Qualification(s):** Students registered in the B.Comm. program, in a major offered by the School of Hospitality and Tourism Management, with a minimum of 5.00 credits, demonstrated financial need, a minimum 70% average in the last two equivalent full-time semesters and an interest in the industry. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 2 awards of $500

Graham Family Incentive Scholarship [14506]

Provided by Harvey Graham (OAC '39) with the assistance of the Ontario government's OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

**Donor(s):** Harvey Graham OAC '39

**Qualification(s):** Students entering the fourth year of a four year degree program, maintaining at least a 70% program average and demonstrating financial need, who have previously received the Harvey Graham Bursary. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 1 award of $5,000

John J. Campbell Memorial Scholarship [10453]

Provided by the Food Service Purchasing Association of Canada (FPAC) in memory of John J. Campbell, former President of the Association. Apply by letter describing your interest in food service management, along with a Need Assessment Form (available from Student Financial Services), to Student Financial Services by January 31.

**Donor(s):** Food Service Purchasing Association of Canada

**Qualification(s):** Students in the B.Comm. program in a major offered by the School of Hospitality and Tourism Management, with demonstrated financial need, who have completed at least 7.5 credits but no more than 10.5 credits at the time of application, and have at least a 70% average in the last two full-time equivalent semesters. Preference will be given to students who have (1) an interest in food service management and (2) demonstrated financial need. Students must be registered full-time in the (winter) semester during which they receive the award.

**Amount:** 1 award of $1,000
IX. Scholarships and Other Awards, Bachelor of Commerce

Tara Lynn Giuliani Memorial Award [I0375]

Amount: 1 award of $1,500

In memory of Tara Lynn Giuliani, a bright young woman, who did not let her blindness stand in the way of her studies at the University of Guelph. Apply to the Centre for Students with Disabilities by November 25.

Donor(s): The Giuliani Family

Qualification(s): Most academically promising applicant with a demonstrated disability and having financial need.

Amount: 1 award of $500

R. Douglas and Kathleen Kennedy Scholarship in OAC [I0546]

Amount: 1 award of $1,500

Kathleen (MAC '39) and Douglas (OAC '39) Kennedy met at a "hop" on campus in 1937 and later married. They established this scholarship to celebrate their time on campus and their 62 years of marriage. Apply to Student Financial Services by October 7 with a completed Need Assessment Form.

Donor(s): Mrs. Kathleen Kennedy and the late Mr. R. Douglas Kennedy

Qualification(s): This scholarship will be awarded to a student in OAC with high academic achievement. Preference will be given to students registered in the Department of Family Relations and Applied Nutrition, the School of Hospitality and Tourism Management, or the Department of Marketing and Consumer Studies and to students with demonstrated financial need.

Amount: 5 awards of $1,000

O.A.C. ’52 Scholarships [I4538]

Offered by the class of O.A.C.'52, with the assistance of the Ontario government's OSOTF program. Apply by letter highlighting involvement in leadership and community activities and/or university life along with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

Donor(s): OAC ’52

Qualification(s): A.C. students enrolled in the B.SC.(Agr.), B.COMM., B.SC. or B.SC.(Env.) programs who have demonstrated financial need, who are in good academic standing and who have demonstrated leadership. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award. (see General Statements on Awards).

Amount: 2 awards of $500

Robert, Louis and Helen Shaw Memorial Degree Scholarships [I4520]

Established by the Shaw Scholarship Committee with the assistance of the Ontario government's OSOTF program. Apply by letter, including a summary of local agricultural activities and a completed Need Assessment Form, to Student Financial Services by October 7. ACCESS AWARD

Donor(s): The Shaw Scholarship Committee

Qualification(s): Students registered in the B.A.Sc., B.COMM. in Agricultural Business, B.SC.(Agr.) or D.V.M. programs studying agriculture, horticulture, equine studies, food and nutrition or veterinary sciences with demonstrated financial need, a 70% cumulative average and having financial need are eligible.

Amount: Several awards up to $2,000

Bette Stephenson Accessiblility Bursary [I1054]

In recognition of the work of Dr. Bette Stephenson in supporting students with learning disabilities, the University of Guelph offers bursaries to students who have demonstrated financial need and who have a learning disability. These bursaries will be used to offset the costs of a required assessment, or the purchase of a computer that is required to support their learning needs. Apply to Student Financial Services, with a completed Need Assessment Form by October 7. Awarded in the Winter semester. ACCESS AWARD

Donor(s): University of Guelph

Qualification(s): Undergraduate students who have demonstrated financial need and who have a learning disability. Students must be full-time (as defined by OSAP regulations) and Canadian citizens or permanent residents.

Amount: 3 awards to a maximum of $1,500

Westmont Hospitality Group ACCESS Scholarship [I4126]

Provided by Westmont Hospitality Group with the assistance of the Ontario government's OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

Donor(s): Westmont Hospitality Group

Qualification(s): Students enrolled in the B.Com. program, in a major offered by the School of Hospitality and Tourism Management, who have completed 13.00 to 17.50 credits at the time of application and have at least a 70% average in the last two equivalent full-time semesters. The award will be distributed based on financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

Amount: 1 award of $1,500

Yeandle Family In-Course Scholarships [I3546]

Provided by the Estate of Audrey Yeandle, a Mac25 graduate and life-long supporter of the University, with the assistance of the Ontario government's OSOTF program. Apply to Student Financial Services by October 7 with a completed Need Assessment Form. ACCESS AWARD

Donor(s): The Estate of Audrey Yeandle

Qualification(s): Full-time undergraduate students registered in each of the eight academic units and CIDS within the College of Social and Applied Human Sciences. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards). Awards will be made on the basis of need, merit and academic achievement.

Amount: Several awards up to $2,000

In-course Awards with Financial Need

Class of OAC ‘36 Bursaries [I3501]

Established by the Class of OAC ’36 with the assistance of the Ontario government’s OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

Donor(s): Class of 1936

Qualification(s): An OAC degree student enrolled in any degree program who has demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

Amount: 2 awards of $500

Archie and Isabelle (Cook) Rintoul CSAHS Bursary [I3018]

Offered by Archie and Isabelle (Cook) Rintoul of OAC ’26 and MAC ’27 respectively. Apply with a completed Need Assessment Form to Student Financial Services. Two awards of $500 (one in each of the two colleges).

Donor(s): Archie and Isabelle (Cook) Rintoul

Qualification(s): Students enrolled in the B.A.Sc. program or the Hotel and Food Administration, Housing and Real Estate Management or Marketing Management majors of the B.COMM. program and the department of Environmental Biology in the B.SC., B.SC.(Agr.) or the B.SC.(Env.) degree programs. Students who have completed semester 4 (10.00 credits) and who have demonstrated financial need are eligible.

Amount: 2 awards of $500

Brinson Partners Inc. Bursaries [I3526]

Brinson Partners Inc., with the assistance of the Ontario government's OSOTF program, has established these bursaries. Apply with a completed need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

Donor(s): Brinson Partners Inc.

Qualification(s): Students with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

Amount: 2 awards of $1,500
<table>
<thead>
<tr>
<th><strong>Burnbrae Farms Bursaries [I3525]</strong></th>
<th><strong>George and Margaret J. Miles Memorial Bursary [I3544]</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Established by Burnbrae Farms, with the assistance of the Ontario government's OSOTF program to assist students with financial need to continue their studies as full-time students. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD</td>
<td>Established by the family to honour the memory of the parents, George and Margaret J. Miles, life long supporters of education. Apply with a completed Need Assessment Form and a letter describing involvement in extra-curricular activities to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD</td>
</tr>
<tr>
<td><strong>Donor(s):</strong> Burnbrae Farms</td>
<td><strong>Donor(s):</strong> Established by the Miles Family</td>
</tr>
<tr>
<td><strong>Qualification(s):</strong> Full-time students with demonstrated financial need. Preference will be given to students with a demonstrated interest in poultry science. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).</td>
<td><strong>Qualification(s):</strong> All undergraduate arts and social science students with demonstrated financial need who are in or beyond semester 3 and have at least a 75% cumulative average in all courses completed to date are eligible to apply. Preference will be given to students who participate and provide leadership in extra-curricular or community activities (examples include student government, charitable organization, volunteer work, Big Brothers/Sisters, contributions to school and/or community, etc.). Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).</td>
</tr>
<tr>
<td><strong>Amount:</strong> 2 awards of $1,500</td>
<td><strong>Amount:</strong> 1 award of $1,500</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th><strong>Canadian Imperial Bank of Commerce Bursaries [I3511]</strong></th>
<th><strong>Gonder Family Bursary [I3543]</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Established by the Canadian Imperial Bank of Commerce, with the assistance of the Ontario government's OSOTF program, to assist students to continue their studies as full-time students. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD</td>
<td>Established by the Gonder Family, with the assistance of the Ontario government's OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services, by October 7. Awarded in the Winter semester. ACCESS AWARD</td>
</tr>
<tr>
<td><strong>Donor(s):</strong> Canadian Imperial Bank of Commerce</td>
<td><strong>Donor(s):</strong> Dr. John Gonder and family</td>
</tr>
<tr>
<td><strong>Qualification(s):</strong> Full-time B.Comm. students majoring in Management Economics in Industry and Finance, or Marketing Management. Students must be in semester 2 or beyond at the time of receiving the award.</td>
<td><strong>Qualification(s):</strong> Full-time B.Comm. students with 5 to 15 course credits, majoring in Management Economics in Industry and Finance or Marketing Management who are continuing in their program of study with at least a 70% cumulative average, and demonstrated financial need are eligible to apply. Preference will be given to a student who has held the award in the previous year. The award can be held a maximum of three times (years two to four of study). Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).</td>
</tr>
<tr>
<td><strong>Amount:</strong> 2 awards of $1,300</td>
<td><strong>Amount:</strong> 1 award of $1,000</td>
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</tbody>
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<thead>
<tr>
<th><strong>Class of ’72: 25th Reunion Bursaries [I3512]</strong></th>
<th><strong>Grand River Chapter (Society of Management Accountants of Ontario) Bursary [I3032]</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Established by the Class of ’72: 25th Reunion Fund with the assistance of the Ontario government's OSOTF program to support students who wish to study full-time. Apply to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD</td>
<td>Donated by the Grand River Chapter of the Society of Management Accountants of Ontario. Preference will be given to students who attended a secondary school in the County of Perth, Waterloo or Wellington. Apply to Student Financial Services by October 7. Awarded in the Winter semester.</td>
</tr>
<tr>
<td><strong>Donor(s):</strong> Class of ’72: 25th Reunion</td>
<td><strong>Donor(s):</strong> Society of Management Accountants of Ontario</td>
</tr>
<tr>
<td><strong>Qualification(s):</strong> Full-time students with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).</td>
<td><strong>Qualification(s):</strong> Full-time student in financial need and registered in the B.Comm. program.</td>
</tr>
<tr>
<td><strong>Amount:</strong> 3 awards of $1,000</td>
<td><strong>Amount:</strong> 1 award of $500</td>
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<thead>
<tr>
<th><strong>Class of OAC ’33 Bursaries [I3531]</strong></th>
<th><strong>Gryphon Investment Council Bursaries [I3513]</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Established by the class of OAC ’33 on the occasion of their 65th Anniversary, with the assistance of the Ontario government's OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD</td>
<td>Established by Gryphon Investment Counsel, with the assistance of the Ontario government's OSOTF program. Awarded in the Winter semester. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD</td>
</tr>
<tr>
<td><strong>Donor(s):</strong> Class of 1933 (in honour of the late Prof. W.I. Squirrell)</td>
<td><strong>Donor(s):</strong> Gryphon Investment Council Inc.</td>
</tr>
<tr>
<td><strong>Qualification(s):</strong> OAC undergraduate students with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).</td>
<td><strong>Qualification(s):</strong> Full-time students with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).</td>
</tr>
<tr>
<td><strong>Amount:</strong> 3 awards of $500</td>
<td><strong>Amount:</strong> 2 awards of $1,500</td>
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</tbody>
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<thead>
<tr>
<th><strong>David R. Leach Memorial Bursary [I3534]</strong></th>
<th><strong>Guelph Compassionate Health Bursary [I3061]</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Provided in memory of David R. Leach by his family, with the assistance of the Ontario government's OSOTF program. David entered OAC in 1969 as a member of OAC ’73 and graduated with a B.Sc. in Agriculture in 1974. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD</td>
<td>This bursary has been established and approved by the Student Health and Dental Committee to assist students facing unforeseen health needs above and beyond the benefits offered through the mandatory University of Guelph student health plan. Submit a Financial Need Assessment application accompanied by the physician recommendation, cost estimates and physician contact information to the Awards Officer, Student Financial Services. The application will be reviewed throughout the semester to handle emergenecies immediately.</td>
</tr>
<tr>
<td><strong>Donor(s):</strong> Mrs Deborah Leach-Sartor</td>
<td><strong>Donor(s):</strong> Student Health and Dental Plan Reserve</td>
</tr>
<tr>
<td><strong>Qualification(s):</strong> OAC undergraduate degree or diploma student who is physically disabled as determined by the Centre for students with Disabilities, has satisfactory academic standing and who has demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).</td>
<td><strong>Qualification(s):</strong> All currently registered students at the University of Guelph that are covered under the University of Guelph mandatory Student Health Plan. The student must require treatment for a condition not currently or completely covered by the Student Health Plan.</td>
</tr>
<tr>
<td><strong>Amount:</strong> 3 awards of $500</td>
<td><strong>Amount:</strong> Several varies to a maximum $1,500</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Elizabeth Burton Bursaries [I3503]</strong></th>
<th><strong>George and Margaret J. Miles Memorial Bursary [I3544]</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Mrs. Elizabeth Burton, with the assistance of the Ontario government's OSOTF program, provides bursaries to students with demonstrated financial need. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD. A number of awards totalling $2,900.</td>
<td>Established by the family to honour the memory of the parents, George and Margaret J. Miles, life long supporters of education. Apply with a completed Need Assessment Form and a letter describing involvement in extra-curricular activities to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD</td>
</tr>
<tr>
<td><strong>Donor(s):</strong> Mrs. Elizabeth Burton</td>
<td><strong>Donor(s):</strong> Established by the Miles Family</td>
</tr>
<tr>
<td><strong>Qualification(s):</strong> Students in second, third or fourth year with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).</td>
<td><strong>Qualification(s):</strong> All undergraduate arts and social science students with demonstrated financial need who are in or beyond semester 3 and have at least a 75% cumulative average in all courses completed to date are eligible to apply. Preference will be given to students who participate and provide leadership in extra-curricular or community activities (examples include student government, charitable organization, volunteer work, Big Brothers/Sisters, contributions to school and/or community, etc.). Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).</td>
</tr>
<tr>
<td><strong>Amount:</strong> Several awards of $2,900</td>
<td><strong>Amount:</strong> 1 award of $1,500</td>
</tr>
</tbody>
</table>
### Guelph Student Assistance Program [I3056]

These bursaries have been established and approved by undergraduate students through student referendum to assist undergraduate and University of Guelph campus diploma students in financial need. Apply to Student Financial Services with a completed Need Assessment Form by October 7. Typically, awarded in the Winter semester. **ACCESS AWARD**

**Donor(s):** Undergraduate Students  
**Qualification(s):** Full-time undergraduate students registered in any degree program with demonstrated financial need. Preference will be given to students who are not eligible for provincial and/or federal assistance programs such as Ontario Student Assistance Program (OSAP) and/or Canada Student Loan Program (CSLP).

**Amount:** Several awards of varying amounts up to $1,000

### Gwen Karr Memorial Bursary [I3010]

Mr. T.K.C. Karr, O.A.C. '32, has provided an endowment fund to assist students in a degree or diploma program of the Ontario Agricultural College. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. **ACCESS AWARD**

**Donor(s):** Mr. T.K.C. Karr, OAC '32  
**Qualification(s):** O.A.C. students with demonstrated financial need

**Amount:** Several varies

### Howard and Myrtle Rogers Bursaries [I3537]

Provided by the Estate of Howard and Myrtle Rogers, with the assistance of the Ontario government's OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. **ACCESS AWARD**

**Donor(s):** The Estate of Howard and Myrtle Rogers  
**Qualification(s):** Students with demonstrated financial need. Preference will be given to students from Wellington County. Students are encouraged to apply for an award in each year of study. The award may have been held in previous years but students must demonstrate on-going financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 10 up to $2,000

### International Emergency Medical Aid Assistance [I3059]

The University of Guelph provides support to International undergraduate students that are faced with unexpected, or unforeseen financial shortfalls due to a medical issue not covered by UHIP or the Student Dental/Medical insurance plans. Students should apply to the International Student Advisor, in the Centre for International Programs office, by completing an International Student Financial Need Assessment Form and submitting documentation to support the medical issue. These bursaries are awarded on an on-going basis.  

**Donor(s):** University of Guelph  
**Qualification(s):** Any International student registered in a degree program at the University of Guelph with a minimum registration of 1.50 course credits.

**Amount:** Several awards of varying amounts

### International Student Bursaries [I3009]

Mrs. Norma L. Valeriote has made available a number of bursaries. Apply to the International Student Advisor.  

**Donor(s):** Mrs. Norma L. Valeriote  
**Qualification(s):** Students who are citizens of Third World countries, as defined by the United Nations, who are registered in a degree or diploma program and who demonstrate financial need.

**Amount:** Several varies

### Irvine and Grace Black Memorial Bursary [I3051]

Established in memory of Irvine and Grace Black, by friends and family to recognize their many contributions to young people. Irvine, a well-known sheep breeder, was a judge at College Royal and the Royal Winter Fair for over fifty years, and Grace was active in the Women's Institute and the Fergus Fall Fair. Apply to Student Financial Services with a completed Need Assessment Form and a letter outlining involvement in the 4-H Club and/or a Women's Institute.  

**Donor(s):** Family and friends of Irvine and Grace Black  
**Qualification(s):** Full-time undergraduate students registered in any degree program with demonstrated financial need. Preference will be given to applicants who are, or have been, active in the 4-H Club and/or a Women's Institute.

**Amount:** 1 award of $500

### Leroux Bursaries [I3535]

Established by Mr. Hector Leroux, O.A.C.'44, with the assistance of the Ontario government's OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. **ACCESS AWARD**

**Donor(s):** Mr. J.H. Leroux  
**Qualification(s):** O.A.C. degree students in the B.SC.(Agr.), B.SC., B.Comm. or B.SC.(Env.) programs with demonstrated financial need. Satisfactory academic standing is required. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 4 awards of $1,000

### Mary I. Whitelock Bursaries [I3524]

Established by the estate of Mary I. Whitelock, a friend of the University, with the assistance of the Ontario government's OSOTF program, to assist students who wish to study full-time but who need financial support to do so. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. **ACCESS AWARD**

**Donor(s):** Estate of Mary I. Whitelock  
**Qualification(s):** All undergraduate, graduate or OAC diploma students with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 13 awards of $2,000

### O.A.C. ’55 Access Bursaries [I3517]

Provided by the class of O.A.C. ’55 with the assistance of the Ontario government's OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. **ACCESS AWARD**

**Donor(s):** O.A.C. Class of ’55  
**Qualification(s):** Students at any semester level in an O.A.C. degree program or students enrolled in the B.SC.(Eng.) program with demonstrated financial need and a 60% minimum cumulative average. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statement on Awards).

**Amount:** Several awards of $500

### OAC ’38 Lloyd Minshall Bursaries [I3529]

Established by OAC ’38 Alumni, with the assistance of the Ontario government's OSOTF program, to recognize the many contributions of Lloyd Minshall to his classmates and to OAC. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. **ACCESS AWARD**

**Donor(s):** OAC ’38 Alumni  
**Qualification(s):** OAC undergraduate students with demonstrated financial need in semesters 5, 6, 7 or 8 and OAC graduate students are eligible to apply. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 7 awards of $1,000

### OAC’57 Bursaries [I3518]

Provided by the Class of OAC’57 with the assistance of the Ontario government's OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. **ACCESS AWARD**

**Donor(s):** OAC ’57 and the OAC Alumni Foundation  
**Qualification(s):** OAC undergraduate degree students with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 5 awards of $1,000

### OAC Alumni Foundation Access Bursaries [I3533]

Provided by the OAC Alumni Foundation, with the assistance of the Ontario government's OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. **ACCESS AWARD**

**Donor(s):** OAC Alumni Foundation  
**Qualification(s):** OAC undergraduate students with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 4 awards of $500
### Ontario Agri Business Association Degree Bursaries [I3502]
The Ontario Agri Business Association, with the aid of the Ontario government's OSOTF program, has made available four bursaries of $750. Apply by October 7 to Student Financial Services with a letter, of up to two pages in length, detailing your involvement and including a University of Guelph Financial Needs Assessment Form. ACCESS AWARD

| Donor(s): | Ontario Agri Business Association |
| Qualification(s): | Awarded to students who have completed a minimum of 10.0 credits in the B.S.C.(Agr.) program in either an unspecified major or in Agricultural Economics, Animal Science, Agronomy or in the B.Comm. program in Agricultural Business. Students must have a minimum cumulative average of 60%. Students will be selected based on demonstrated financial need and on involvement in community/extracurricular activities. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards). |
| Amount: | 4 awards of $750 |

### Ontario Co-operatives R.P. Forshaw Bursary [I3013]
Provided by the Ontario Co-operatives, Credit Unions, friends and associates of Prof. R. P. Forshaw have established this bursary. Apply to Student Financial Services with a completed Need Assessment Form by October 7. Awarded in the Winter semester. ACCESS AWARD

| Donor(s): | The Co-operatives, Credit Unions, friends and associates of Prof. R.P. Forshaw |
| Qualification(s): | Undergraduate students who have financial need. Preference may be given to candidates who have been or are members of a co-operative or credit union. |
| Amount: | 1 award of $400 |

### Ontario Egg Producers’ Marketing Board Bursaries [I3507]
Provided by the Ontario Egg Producers’ Marketing Board and the O.A.C. Alumni Foundation with the assistance of the Ontario government's OSOTF program. Apply with a letter and a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

| Donor(s): | The Ontario Egg Producers’ Marketing Board |
| Qualification(s): | Students with demonstrated financial need who have completed semester 2 and are enrolled in the B.S.C.(Agr.) or B.Comm.(Agricultural Business) programs and who have a 60% minimum cumulative average. Preference will be given to students who have demonstrated an interest in the poultry industry. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards). |
| Amount: | 6 awards of $1,000 |

### Ontario Federation of Agriculture Bursaries [I3520]
Provided by the Ontario Federation of Agriculture and the O.A.C. Alumni Foundation with the assistance of the Ontario government's OSOTF program. Apply with a letter and a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

| Donor(s): | Ontario Federation of Agriculture |
| Qualification(s): | O.A.C. students with demonstrated financial need enrolled in the B.S.C.(Agr.), B.Comm., B.S.C. or B.S.C.(Env.) programs. Preference will be given to students from farm families who have participated in 4H and/or rural community activities. A student may receive up to three bursaries annually ($1,500). Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards). |
| Amount: | 12 awards of $500 |

### Ontario Grape Producers Bursary [I3033]
Offered by the Ontario Grape Producers Action Committee. Apply to Student Financial Services with a completed Need Assessment Form by October 7. Awarded in the Winter semester.

| Donor(s): | The Ontario Grape Producers Action Committee |
| Qualification(s): | Students with good academic standing in semesters 3 to 6 of a degree program or in years 3 to 4 of a diploma program administered by O.A.C., and demonstrated need of financial assistance. |
| Amount: | Several of various amounts |

### Ontario Pork (Degree) Bursary [I3049]
Provided by Ontario Pork Producers' Marketing Board. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester.

| Donor(s): | Ontario Pork Producers’ Marketing Board |
| Qualification(s): | B.S.C.(Agr.) and B.Comm., Agricultural Business major, students with demonstrated financial need who have completed semester 4 and who have satisfactory academic standing and an interest in pork production. |
| Amount: | 1 award of $500 |

### Robb Travel Grants [T3028]
These travel grants have been provided in recognition of her love of agriculture, by the estate of Martha Robb, Paris, Ontario. Apply to the Dean, O.A.C. by April 15. Varying amounts (80% of the travel costs will be covered up to $750 per student).

| Donor(s): | The estate of Martha Robb |
| Qualification(s): | O.A.C. students who are attending another university on a Letter of Permission |
| Amount: | Several varies |

### Robert Auger Humanitarian Bursary [I3058]
This award, of up to $500, has been established through the generosity of staff in the Office of Registrarial Services, family and friends of Robert Auger, a former Associate Registrar at the University of Guelph. It is intended as an emergency fund to assist students who unexpectedly find themselves in difficult financial circumstances, to provide grocery, and textbook vouchers.

| Donor(s): | Office of Registrarial Services |
| Qualification(s): | Students who require assistance through this fund should apply in confidence to the Assistant Registrar, Financial Aid, Student Financial Services. |
| Amount: | Several awards of $500 |

### Scotiabank Bursaries [I3532]
Established by Scotiabank, with the assistance of the Ontario government's OSOTF program, to assist students with financial need to continue their studies as full-time students. Distributed in the Winter semester. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

| Donor(s): | Scotiabank |
| Qualification(s): | Full-time students with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards). |
| Amount: | 2 awards of $1,500 |

### T.K. Warley Bursaries [I3510]
Established by O.A.C. Alumni Association, with the assistance of the Ontario government's OSOTF program, to recognize Professor T.K. Warley's significant contribution to the O.A.C. Alumni Foundation and to students through teaching and promotion/development of “Experience Agriculture”. A degree student may receive this bursary twice. Apply by letter stating qualifications with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

| Donor(s): | OAC Alumni Association |
| Qualification(s): | Students with demonstrated financial need who are in semester 5 to 8 of any degree program within O.A.C.. A minimum 65% is required, as is participation in student activities, governance, and/or college affairs. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards). |
| Amount: | 3 awards of $500 |
### University of Guelph Access Bursaries [I3522]
Provided by alumni and friends of the University, with the assistance of the Ontario government's OSOTF program, to support undergraduate, graduate or OAC (Guelph) diploma students who wish to study full-time but who need financial support to do so. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD. Variable amounts from $500 to $2,000

| Donor(s): | Alumni and Friend of the University of Guelph |
| Qualification(s): | Full-time students with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards) |
| Amount: | Several awards of $500, Several awards of $2,000 |

### University of Guelph Alumni Association Access Bursaries [I3523]
Established by the University of Guelph Alumni Association, with the assistance of the Ontario government's OSOTF program, to support students who wish to study full-time but who need financial support to do so. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

| Donor(s): | University of Guelph Alumni Association |
| Qualification(s): | Full-time in-course students with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards) |
| Amount: | Several awards of $500, Several awards of $2,000 |

### University of Guelph Child Care Bursaries [I3053]
In order to provide accessible child care to students with (a) child(ren), the University of Guelph offers bursaries to students who have demonstrated financial need. Apply to Student Financial Services, with a completed Need Assessment Form by October 7. Awarded in the Winter semester. A number of awards between $500 and $2,000.

| Donor(s): | University of Guelph |
| Qualification(s): | Students, supporting (a) child(ren) who demonstrate greatest financial need, to offset the costs of child care. To be eligible, undergraduate students must be full-time (as defined by OSAP regulations) and Canadian citizens or permanent residents with demonstrated financial need. |
| Amount: | Several awards of $500, Several awards of $2,000 |

### University of Guelph International Bursary [I3048]
The University of Guelph provides support to International undergraduate students that are faced with unexpected, or unforeseen financial shortfalls while registered on campus. Students should apply to Benny Quay, in the Centre of International Programs office by completing an International Student Financial Need Assessment Form. These bursaries are awarded on an on-going basis.

| Donor(s): | University of Guelph |
| Qualification(s): | Any International student registered in a degree program at the University of Guelph with a minimum registration of 1.50 course credits. |
| Amount: | Several varies |

### University of Guelph Undergraduate In-Course Bursaries (MET-TR-UG) [I3037]
The University of Guelph offers in-course bursaries to students who have demonstrated financial need. Apply to Student Financial Services, with a completed Need Assessment Form by October 7. Awarded in the Winter semester.

| Donor(s): | University of Guelph |
| Qualification(s): | Ontario students registered for full-time studies (as defined by OSAP) in a degree program with demonstrated financial need and a minimum of 2.0 course credits completed. |
| Amount: | Several awards ranging in value from $100 to $3,000 |

### University of Guelph Undergraduate In-Course Bursaries (NON OSAP TR) [I3047]
The University of Guelph offers in-course bursaries to students who have demonstrated financial need. Apply to Student Financial Services, with a completed Need Assessment Form by October 7. Awarded in the Winter semester.

| Donor(s): | University of Guelph |
| Qualification(s): | Undergraduate students registered for full-time studies (as defined by OSAP) in a degree program with demonstrated financial need and a minimum of 2.0 course credits completed. |
| Amount: | Several awards to a maximum of $800 |

### University of Guelph Access Bursaries (NON OSAP TR) [I3047]
These bursaries have been established and approved by the University of Guelph to assist undergraduate and University of Guelph campus diploma students in financial need. Apply to Student Financial Services with a completed Need Assessment Form by October 7. Typically, awarded in the Winter semester.

| Donor(s): | University of Guelph |
| Qualification(s): | Full-time undergraduate students registered in any degree program with demonstrated financial need. Preference will be given to students who are not eligible for provincial and/or federal assistance programs such as Ontario Student Assistance Program (OSAP) and/or Canada Student Loan Program (CSLP). |
| Amount: | Several awards of varying amount to a maximum of $1,000 |

### In-course Travel Grants

#### A.W. Archibald Memorial Travel Grant [T4541]
Mr. A.W. Archibald, OAC ’33 with the assistance of the Ontario government’s OSOTF program, provide these travel grants to students who plan to travel for a semester abroad or to attend other schools outside of Canada for workshops or other academic related purposes. Apply to Student Financial Services with a letter outlining proposed travel plans and academic purpose accompanied by a letter of support from a faculty member or student advisor, a travel budget, and a completed Financial Need Assessment Form by October 7. ACCESS AWARD.

| Donor(s): | A.W. Archibald, OAC ’33 |
| Qualification(s): | Undergraduate students in any OAC program with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards) |
| Amount: | Several up to $1000 |

#### Arthur D. Latournell Undergraduate Travel Grants [T9058]
An endowment fund established in memory of Arthur D. Latournell, OAC ’50, who had a life-long professional career in resource management and conservation and a special interest in helping young people. The funds are given to provide twenty-five travel grants. These travel grants are offered to assist students in attending conferences, courses, co-op student exchanges or study abroad programs in these areas. Students may receive this grant only once. Apply to Student Financial Services. Deadline dates are June 1 for Fall travel, October 1 for Winter travel, and February 1 for Summer travel. Up to 80% of estimated travel costs to a maximum of $1,000.

| Donor(s): | The Estate of Arthur D. Latournell |
| Qualification(s): | Students in semester 3 and above. Students must have at least a 70% average and a primary area of interest related to natural resources management, environmental science, conservation, soil science and/or rural development. Students will be asked to submit a one-page review of their travel experience, including the role of the travel grant played, to the University after completion of the travel. |
| Amount: | several up to a maximum of $1000 |

#### Canada's Outdoor Farm Show Travel Grants [T3536]
Established by Canada’s Outdoor Farm Show and the O.A.C. Alumni Foundation, with the assistance of the Ontario government’s OSOTF program. Apply to Student Financial Services with a letter outlining proposed travel plans and appropriate involvement in student activities. Upon successful return from travel opportunity, student(s) should be willing to present report to classmates and/or faculty. ACCESS AWARD

| Donor(s): | Canada’s Outdoor Farm Show |
| Qualification(s): | Undergraduate students in O.A.C. who have completed semester 4 in Agricultural Science or Agricultural Business or who have completed semester 2 of the Diploma in Agriculture program (Alfred, Guelph, Kemptville, Ridgetown). |
| Amount: | 1 award of $1,000 |
### Canadian Friends of the Hebrew University in Jerusalem Travel Bursary [T4532]

The Canadian Friends of the Hebrew University of Jerusalem, with the assistance of the Ontario government's OSOTF program, have established these travel scholarships to assist students study at the Hebrew University of Jerusalem. Apply by letter with a completed Need Assessment Form to Student Financial Services by May 1. ACCESS AWARD. Up to three awards totalling $7500.

<table>
<thead>
<tr>
<th>Qualification(s):</th>
<th>Donor(s):</th>
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<tbody>
<tr>
<td>Undergraduate students in either the second or third year of study, Masters students in the first year of study, and Doctoral students in the first three years of study are eligible to be considered. Applicants must provide documentation that they have approval from the Hebrew University of Jerusalem (i) to take courses and (ii) for the period of the visit. Students must also arrange appropriate University of Guelph approvals for a &quot;Letter of Permission&quot; prior to applying. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).</td>
<td>Canadian Friends of the Hebrew University in Jerusalem</td>
</tr>
</tbody>
</table>

| Amount: | 3 Awards with varying amounts |

### Elizabeth M. (Betty) Upton Memorial Travel Grant [T0366]

Established in memory of Elizabeth M. Upton, a faculty member in the School of Hospitality and Tourism Management, who played a key role in the development of the School and was instrumental in the development of the Institutional Foodservice Management major. Apply by letter, by April 1, to the HTM Awards Committee describing the travel, the expected benefit and including a budget and any expected sources of funding. Varies but will not exceed $500.

<table>
<thead>
<tr>
<th>Qualification(s):</th>
<th>Donor(s):</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student who demonstrates the greatest financial need for travel to a recognized University of Guelph study abroad, exchange or letter of permission activity outside Canada, or to attend a relevant professional conference, or to collect research date for a thesis or major paper. Students must have completed two or more semesters in a graduate or undergraduate program offered by the School of Hospitality and Tourism Management, and must be in good academic standing. The project or conference must occur within 12 months.</td>
<td>The faculty and alumni of HTM and family and friends of Elizabeth M. (Betty) Upton</td>
</tr>
</tbody>
</table>

| Amount: | 1 award of $500 |

### J. Ross Cavers International Exchange Scholarship [T0051]

OAC '53 provides this scholarship in memory of J. Ross Cavers, their honorary year member and Professor Emeritus. Apply to Student Financial Services, by April 1.

<table>
<thead>
<tr>
<th>Qualification(s):</th>
<th>Donor(s):</th>
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</thead>
<tbody>
<tr>
<td>Undergraduate student in OAC with travel and/or housing costs associated with a semester or more of academic study or cooperative work experience through a recognized university outside Canada. Students must have completed 7.50 credits and have satisfactory academic standing in their undergraduate course work. Preference will be given to a candidate who has exhibited qualities of leadership.</td>
<td>OAC '53</td>
</tr>
</tbody>
</table>

| Amount: | 1 award of $1,000 |

### Joan Doherty Travel Scholarship [T0401]

Established in memory of the late Joan Doherty (a member of the class of FACS '78) to assist students to attend a conference related to their studies. Apply to the Chair of the Department of Marketing & Consumer Studies Awards Committee by March 1 including a budget and a description of the travel.

<table>
<thead>
<tr>
<th>Qualification(s):</th>
<th>Donor(s):</th>
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</thead>
<tbody>
<tr>
<td>Undergraduate or graduate student in Marketing &amp; Consumer Studies with a minimum cumulative average of 70%. The recipient will be selected based upon the cost of attending the conference and the benefit it will bring to the student's program of study.</td>
<td>Mr. Thomas B. Doherty</td>
</tr>
</tbody>
</table>

| Amount: | 1 award of $400 |

### Louise McConkey Travel Scholarship [T0431]

Established in memory of the late Louise McConkey, Mac '27 to defray travel costs related to the student's course of study. Selection will be made on the basis of the value of the travel to the students' studies. Apply to the Chair of the Department of Marketing & Consumer Studies Awards Committee including a budget and a description of the travel and the benefit to be gained. One or more awards up to a total of $1,400.

<table>
<thead>
<tr>
<th>Qualification(s):</th>
<th>Donor(s):</th>
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</thead>
<tbody>
<tr>
<td>Undergraduate or graduate student in the Department of Marketing &amp; Consumer Studies with a minimum 70% cumulative average in the last two full-time equivalent semesters.</td>
<td>The estate of Louise McConkey</td>
</tr>
</tbody>
</table>

| Amount: | 1 award of $1,400 |

### Massey Fund Travel Scholarships [T0417]

Travel scholarships available from the Massey Fund. Not tenable with other awards that support travel costs. Apply by letter outlining the study abroad/exchange program and travel costs to the OAC Dean's Office by April 15.

<table>
<thead>
<tr>
<th>Donor(s):</th>
<th>Qualification(s):</th>
</tr>
</thead>
<tbody>
<tr>
<td>OAC Awards Committee</td>
<td>OAC undergraduate students who are participating in an approved study abroad or exchange program outside Canada. Academic standing in the last two full-time semesters or equivalent will be used to determine recipients.</td>
</tr>
</tbody>
</table>

| Amount: | 1 award of $750 |

### OAC ‘47 Travel Bursaries [T3505]

Provided by OAC‘47 on the occasion of its 50th anniversary and with the assistance of the Ontario government's OSOTF program. Apply by letter with a completed Travel Award Application and a Need Assessment Form for Travel awards to Student Financial Services by October 1, February 1 or June 1. ACCESS AWARD.

<table>
<thead>
<tr>
<th>Qualification(s):</th>
<th>Donor(s):</th>
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</thead>
<tbody>
<tr>
<td>OAC undergraduate students who have demonstrated financial need and who are participating in a study abroad program for academic credit at an approved institution. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).</td>
<td>The Estate of Richard Hungerford</td>
</tr>
</tbody>
</table>

| Amount: | 3 awards of $600 |

### Richard and Sophia Hungerford Undergraduate Travel Scholarships [T4508]

The estate of Richard and Sophia Hungerford, with the assistance of the Ontario government's OSOTF program, has established an endowment to provide travel scholarships to undergraduate students with demonstrated financial need who wish to study in developing countries, or attend conferences on development. Apply to Student Financial Services with a description of the intended travel, an estimate of the travel costs and a completed Need Assessment Form at least one month prior to departure. Deadline dates are June 1 for Fall travel, October 1 for Winter travel, and February 1 for Summer travel. ACCESS AWARD.

<table>
<thead>
<tr>
<th>Qualification(s):</th>
<th>Donor(s):</th>
</tr>
</thead>
<tbody>
<tr>
<td>Registered undergraduate students with demonstrated financial need who have at least a 70% cumulative average in the last 2 semesters of full-time equivalent study are eligible. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).</td>
<td>The Estate of Richard Hungerford</td>
</tr>
</tbody>
</table>

| Amount: | Several awards of varying amounts to a maximum of $1,000 |

### Roderick Long International Travel Grant [T0360]

Offered in memory of the late Roderick Long, O.A.C.'54. Up to eighty percent of the travel costs associate with the study outside of Canada program will be covered up to a maximum of $1,000 per student. Application by letter should be made to the Dean O.A.C. by April 15, and include a description of the study abroad program, Travel grant (or grants) totalling $1,500.

<table>
<thead>
<tr>
<th>Qualification(s):</th>
<th>Donor(s):</th>
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</thead>
<tbody>
<tr>
<td>O.A.C. undergraduate student who is studying outside of Canada on an approved program for one or more semesters</td>
<td>Mr. Roderick W. Long</td>
</tr>
</tbody>
</table>

| Amount: | Several awards of $1,500 |

### University of Guelph Travel Scholarships [T0421]

The University of Guelph, through the sale of Guelph London House, has established an endowment to provide travel scholarships to undergraduate and graduate students who wish to study outside of Canada but need financial support to do so. A total of $35,000 is available in the fund. Apply to Student Financial Services with a completed Travel Grant Application and Financial Need Assessment Form by October 1 for Winter travel, February 1 for Spring travel and June 1 for Fall travel.

<table>
<thead>
<tr>
<th>Qualification(s):</th>
<th>Donor(s):</th>
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<tbody>
<tr>
<td>Registered undergraduate and graduate students that have completed 5.0 credits with demonstrated financial need who have a minimum 70% cumulative average in the last two semesters of full-time equivalent study are eligible to apply. The value of the award will depend on the assessed financial need. The scholarship can cover additional costs of travelling outside of Canada including: airfare, administrative costs, and differential costs of accommodation.</td>
<td>University of Guelph</td>
</tr>
</tbody>
</table>

| Amount: | Several up to $1,000 |
Miss Bertha Manent of New York City has established five or more Mrs. Lillie-Jane Lyon Varley and Clarence D. Lyon Exchange scholarships. Apply to Student Financial Services by April 1, including a letter from the Dean or Director approving the proposed program of study.

**Donor(s):** Miss Bertha Manent  
**Qualification(s):** O.A.C. students who are pursuing a course of study for one or two semesters at another college or faculty of agriculture in Canada or in another country. Such course of study must lead to the degree of B.Sc.(Agr.), B.Com. in Agricultural Business or the Diploma in Agriculture at the University of Guelph.  
**Amount:** 3 awards of $750
Bachelor of Computing

Please refer to the General Statement on Awards for:

- Award Eligibility
- ACCESS Awards Eligibility
- Ontario Student Opportunity Trust Fund (OSOTF) Program
- How Awards are Paid

The University reserves the right to amend awards subject to the availability of funds.

Entrance Scholarships

**Angelo and Frank Agro Undergraduate Scholarship [E0520]**
Provided by the Agro Scholarship Fund. Apply by April 1 to Student Financial Services, including a covering letter describing your activities within 4H (details of 4H club membership, creativity in support of 4H activities, participation in activities and events, volunteer leadership roles, etc.) and a letter of reference from a 4H club official attesting to your involvement. $4,000 ($1,000 annually for four years).

**Donor(s):** The Frank Agro Estate

**Qualification(s):** Full-time students entering semester 1 who have attained a minimum 80% admission average in their graduating year from high school. The scholarship will be awarded to the eligible student demonstrating the greatest past or continuing involvement with 4H activities. Recipients must maintain full-time studies and at least a 70% program average each year for continuation of the award.

**Amount:** 1 award of $4,000

**Board of Governors’ Scholarships [E0317]**

The scholarship will be paid in eight equal installments with the first and second payments payable shortly after registration in semesters 1 and 2. The 3rd to 8th payments are contingent upon obtaining a minimum average of 80% over the previous two semesters of full-time study. Students who fail to qualify for a payment may re-qualify by subsequently obtaining an 80% or better average over the previous two semesters of full-time study. Application not required. Twenty-five awards of $8,000 ($2,000 annually for 4 years).

**Donor(s):** Board of Governors

**Qualification(s):** Outstanding students entering semester 1

**Amount:** 25 awards of $8,000

**December 6th Memorial Scholarship [E0055]**

This scholarship, established by the Faculty Association, is awarded in memory of the fourteen women murdered in December 1989 at Ecole Polytechnique and is intended to attract women to a profession that is largely comprised of men. Application not required. $2,250 ($750 in each of semesters 1, 2 and 3).

**Donor(s):** University of Guelph Faculty Association

**Qualification(s):** Female student who is a Canadian Citizen or Permanent resident of Canada enrolled in the College of Physical and Engineering Science. The recipient will be selected on the basis of academic performance. For continued eligibility beyond semester 1, the student must maintain a minimum of 70% cumulative average. Demonstrated financial need may also be considered.

**Amount:** 1 award of $2,250

**Earl B. MacNaughton Entrance Scholarships [E0172]**

Established by friends, faculty, staff, alumni and students of the University to honour Earl B. MacNaughton, former head of the Department of Physics and founding Dean of the College of Physical Science. Application not required.

**Donor(s):** Earl B. MacNaughton

**Qualification(s):** Students with high academic standing, entering an honours program in the College of Physical and Engineering Science. Emphasis will be given to academic achievement in high school science and mathematics.

**Amount:** 4 awards of $1,000

**Gordon W. Innes Scholarship [E0140]**

Established by the Gordon W. "Sparky" Innes Scholarship Fund Committee of the Woodstock Agricultural Society. Application not required.

**Donor(s):** Gordon W. 'Sparky' Innes Scholarship Fund Committee of the Woodstock Agricultural Society

**Qualification(s):** Student from Oxford County with the highest admission average.

**Amount:** 1 award of $1,400

**International Student Entrance Scholarships [E0408]**

In support of the University's strategic direction of internationalism, entrance scholarships are available each Fall semester to the top international students entering their first semester of an undergraduate degree program at the University of Guelph. Applicants must submit all relevant documentation for admission consideration by March 1. Students are to be considered for a scholarship. These scholarships are awarded on a competitive basis. Application not required.

**Donor(s):** University of Guelph

**Qualification(s):** Students on a “student visa” entering an undergraduate degree program at the University of Guelph with a record of high academic achievement and extracurricular involvement, and studying full-time. This award is offered for the first year of study.

**Amount:** Several awards ranging in value from $500 - $6,000

**J.D. MacLachlan Scholarship [E0170]**

Provided by the family of J.D. MacLachlan. Application not required.

**Donor(s):** The J.D. MacLachlan Trust

**Qualification(s):** Student entering the University with the highest admission average.

**Amount:** 1 award of $1,500

**Lincoln Alexander Chancellor’s Scholarship [E0493]**

These scholarships, named to honour Lincoln Alexander, Chancellor of the University of Guelph and former Lieutenant Governor of Ontario, on his 80th birthday, are awarded to academically distinguished entering students who are Aboriginal, persons with a disability or members of a racial minority, and who have made significant contributions to their schools and communities and demonstrated the potential to become leaders in society. These scholarships are intended to enhance student diversity and are amongst the most prestigious entrance awards at the University of Guelph. Nominations are made by high school principals and are to be sent to the Associate Registrar, Student Financial Services, by March 1. Two awards of $20,000 ($5,000 annually for 4 years).

**Donor(s):** Many Donors

**Qualification(s):** Entering students of academic distinction who are Aboriginal, persons with a disability or members of a racial minority, and who have made significant contributions to their schools and communities and demonstrated the potential to become leaders in society. Financial need may be taken into consideration.

**Amount:** 2 awards of $20,000

**McArthur-Humphries Scholarships [E0183]**

Provided by the Wilhelmina McArthur Humphries Trust Fund. This scholarship is awarded to students entering any undergraduate degree program and are based on the highest admission average. Application not required.

**Donor(s):** Wilhelmina McArthur-Humphries Trust Fund

**Qualification(s):** Students entering semester 1 with a minimum 75% admission average. Preference will be given to those students from Lanark and Wellington Counties. An equal number of awards are available to students from each county. In the case of insufficient eligible applicants from one county, the awards will be given to eligible applicants from the other county.

**Amount:** 12 awards of $1,000

**P.A.J. Clarke Family Scholarship [E0381]**

Paul and Aileen Clarke and their family established the endowment for this entrance scholarship in honour of Paul’s father, the late Jack Clarke, a Blenheim area farmer. Apply by letter outlining extracurricular and/or community activities, ensuring that you have completed a Need Assessment Form for Entrance Awards, and submit to Student Financial Services by April 1. Students who have applied to the University for admission will receive information on completing a Need Assessment Form for Entrance Awards from the University early in the calendar year. This award is not tenable with the President’s or Lincoln Alexander Chancellor’s Scholarship. Application not required.

**Donor(s):** Paul and Aileen Clarke

**Qualification(s):** Students with a minimum 80% average with a record of leadership and community participation are eligible. Preference will be given to students from Blenheim district or Kent County and who were raised, or have worked, on a farm. Students may be contacted to provide special need circumstances if there is a short list of equal candidates.

**Amount:** 1 award of $12,000
IX. Scholarships and Other Awards, Bachelor of Computing

**President’s Scholarship [E0238]**

The most prestigious entrance awards at the University of Guelph. Twelve scholarships of $20,000 ($5,000 annually), named to honour their donors or distinguished members of the University, are awarded to entering students of academic distinction who have made significant contributions to their schools and communities and demonstrated the potential to become leaders in society. Nomination packages are sent to Canadian high schools each fall. This award is tenable with the University of Guelph Entrance Scholarship, the University of Guelph Accessibility Scholarship or the Registrar’s Entrance Scholarship, but no other Entrance Scholarships. High school principals must submit their nominations using the application material sent to the school’s Guidance Office in the fall, to the Associate Registrar, Student Financial Services, by March 1. **Donor(s):**

A number of President’s Scholarships have been named in honour of the following people and/or donors:

- **Dick Brown**
  - Two of the scholarships, endowed by Dr. Patrick Lett are awarded to winners whose leadership qualities best reflect those demonstrated by Dick Brown in University Athletics from 1968 to 1988.

- **Cecil H. Franklin and Ingrid Franklin**
  - In honour of Cecil Franklin, former Chair of the Board of Governors and Honorary Fellow of the University, the University of Guelph has named one of these twelve prestigious entrance awards to recognize his financial contributions and volunteer support to the President’s Entrance Scholarship program.

- **Charles S. Humphrey**
  - In memory of Charles S. Humphrey, a former President of Hart Chemical Company Canada Ltd. and long-time friend, the University has named one of these twelve prestigious entrance awards to recognize his financial contribution through his estate to the President’s Entrance Scholarship program.

- **Jack R. Longstaffe**
  - The University of Guelph has named one of these twelve prestigious entrance awards in memory of Jack R. Longstaffe to recognize his financial contribution through his estate to the President’s Entrance Scholarship program.

- **Burton C. Matthews**
  - The University of Guelph has named one of these twelve prestigious entrance awards in honour of Burton C. Matthews to recognize his insight and leadership in establishing the President’s Entrance Scholarship program.

- **Kathleen and Frederick Metcalf**
  - Mr. and Mrs. F.T. Metcalf of Guelph have endowed this award. After a distinguished career in cable TV, broadcasting and publishing, the late Mr. Metcalf retired as President of Maclean Hunter Ltd. and Chairman of the Board of Maclean Hunter Cable Ltd. He was a Honorary Chairman of Maclean Hunter Cable Ltd. and a member of the University of Guelph Heritage Board (1996).

- **Rol-land Farms Limited**
  - Two of the scholarships are endowed by the four shareholders of Rol-land Farms Limited of Blenheim, Ontario, Hank, Peter, Arthur and Eric Vander Pol and their families. The Vander Pol families are generous supporters of a number of University projects and programs.

- **Lillian Stewart Usher**
  - The University of Guelph has named one of these twelve prestigious entrance awards in honour of Lillian Stewart Usher a friend of the University to recognize her financial contribution through her estate to the President’s Entrance Scholarship program.

- **W. Penri Morris Memorial Scholarship [E0430]**
  - Established by the family in memory of Penri Morris, who was killed World War II action in 1944 at the age of 21. Penri grew up on the family fruit farm near Forest, Ontario. After graduating from high school, he joined the Royal Canadian Air Force and was attached to the Royal Air Force Bomber Command as a navigator at the age of this death. Awarded to the student with the highest cumulative academic performance above 75% in all courses of the last year in high school study (full-time or equivalent study).

**Qualification(s):** Entering students of academic distinction who have shown satisfactory academic performance and who have demonstrated the potential to become leaders in society.

**Amount:** 12 awards of $20,000

The University of Guelph Entrance Scholarships [E0291]

This scholarship is based on the final admission average and program of study that is calculated by Admission Services, based on 12U, 12M, or OAC courses. These will be awarded based on the final high school grades that are submitted to the University in July. A minimum 85% final admission average guarantees an award. The scholarship will be applied directly to the student’s financial account in two equal payments in the Fall and Winter Semesters. You can view the scholarship amounts at: http://www.uoguelph.ca/studfin/fall_current_merit.shtml. Application not required. **Donor(s):** University of Guelph **Qualification(s):** Students entering their first year of post-secondary studies for the first time and have a minimum 85% final admission average. **Amount:** Several awards ranging in value from $1,500 to $3,000

**University of Guelph Faculty Association Scholarship [E0292]**

Award is payable at $750 per annum in the student’s 1st, 3rd, and 5th semester levels, provided a cumulative average of at least a 70% is maintained. To receive the final payment, the recipient would normally be entering the 5th semester level within a period of 3 calendar years from the date of admission. Application not required. **Donor(s):** University of Guelph Faculty Association **Qualification(s):** Student entering an undergraduate degree program at the University of Guelph with the highest admission average who has been a resident in the County of Wellington during the previous twelve months. **Amount:** 1 award of $2,250

**Entrance Scholarships with Financial Need**

**Bill Klopp Memorial Award [E0150]**

Priority will be given to a student from Kitchener-Waterloo Collegiate and Vocational Institute. Apply by letter, to Student Financial Services, outlining extracurricular activities and by completing the online Entrance Financial Need Assessment Application (N.A.F) by May 1. Students should complete the Entrance Financial Need Assessment application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student). **Donor(s):** Ross and Mary Lou Klopp **Qualification(s):** Presented to a student entering semester 1 from the cities of Kitchener or Waterloo who has demonstrated involvement in extracurricular activities who has shown satisfactory academic performance and who has financial need. **Amount:** 1 award of $500

**Registrar’s Entrance Scholarships [E0384]**

Established by the University of Guelph to support entering undergraduate students with identified financial need. Students should complete the online Entrance Financial Need Assessment application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student). Deadline to submit the application is May 1. Scholarship offers will be made in May. This award is not tenable with the University of Guelph Accessibility Scholarship, but can be held with all other Entrance Awards. **Donor(s):** University of Guelph **Qualification(s):** Students entering a full-time undergraduate program on the basis of financial need and academic merit. **Amount:** 500 awards of $2,000
Rol-Land Farms Scholarships [E4519]
Established by Rol-Land Farms, with the assistance of the Ontario government's OSOTF program, to attract entering students who might otherwise not be able to attend university for financial reasons. Students should complete the online Financial Need Assessment application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student). Deadline to submit the application is May 1. 

| Donor(s): | Rol-Land Farms |
| Qualification(s): | Outstanding entering undergraduate students with demonstrated financial need and a minimum 80% cumulative average. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards). |
| Amount: | 13 awards of $2,000 |

University of Guelph Accessibility Scholarship [E3038]
Established by the University of Guelph to support entering undergraduate students with identified financial need. Students should complete the online Entrance Financial Need Assessment application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student). Deadline to submit the application is May 1. 

| Donor(s): | University of Guelph |
| Qualification(s): | Students entering a full-time undergraduate program on the basis of financial need and academic excellence. |
| Amount: | 150 awards of $9,000 |

Entrance Awards with Financial Need

Harvey Graham Bursary [E3030]
Provided by Harvey Graham (OAC '39). Students should complete the online Entrance Financial Need Assessment application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student). Deadline to submit the application is May 1. 

| Donor(s): | Harvey Graham, OAC '39 |
| Qualification(s): | Student who has demonstrated financial need with preference given to a student who comes from a working farm. Students graduating from Lindsay C. V. I., Fenelon Falls Secondary School, or L. E. Woolson Secondary School will be considered. Each application must be accompanied by a reference letter from the Reeve of the student’s home township. |
| Amount: | 1 award of $1,700 |

International Student Entrance Bursaries [E3043]
In support of the University's strategic direction of internationalism, entrance bursaries are available each fall to assist some of our international students entering an undergraduate degree program at the University of Guelph. Students who have applied to the University of Guelph will receive an application form. 

| Donor(s): | University of Guelph |
| Qualification(s): | Students on a student visa entering an undergraduate degree program at the University of Guelph with demonstrated financial need. |
| Amount: | Several awards of $1,000, Several awards of $3,000 |

Justine Eves Learning Disability Accessibility Bursaries [E3057]
In memory of Justine Eves who was dyslexic and died tragically in an automobile accident in 1995, the Justine Eves Foundation together with the University of Guelph provides these awards to entering Undergraduate students who have a learning disability and who has demonstrated financial need. Students should complete the online Entrance Financial Need Assessment application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student). Deadline to submit the application is May 1. 

| Donor(s): | Justine Eves Foundation |
| Qualification(s): | Any entering undergraduate student that has financial need and a documented learning disability as defined by the Ontario Psychological Association. |
| Amount: | 4 awards of $3,000 |

Robert Arthur Stewart Bursaries [E3272]
Established in memory of Mrs. Elsa H. Stewart of Pakenham, Ontario. Mr. Stewart graduated from the Ontario Agricultural College in 1933 and Mrs. Stewart from Macdonald Institute in 1932. Applicants for these bursaries should have a good academic record and an active interest in community affairs. A recommendation from the County agricultural representative or the secondary school principal is required and should be sent to Student Financial Services by April 1. Students should complete the online Entrance Financial Need Assessment application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student). 

| Donor(s): | The Estate of Mrs. H. Stewart |
| Qualification(s): | Students from the Ontario Counties of Lanark and Renfrew, and the Regional Municipality of Ottawa-Carleton, entering the 1st semester of a degree program at the University of Guelph. |
| Amount: | 12 awards of $500 |

In-course Scholarships

Bill Taylor Memorial Scholarship [I0280]
Applications to include a supporting letter from a coach or intramural supervisor. Apply to Student Financial Services by April 1. 

| Donor(s): | AMF Canada Ltd. |
| Qualification(s): | Full-time student that has completed a minimum of 7.5 credits, but no more than 17.5 credits in the Winter term who has a cumulative 80% average or who is in the top 10% of his/her program. The recipient must have demonstrated responsibility and leadership qualities through participation in intramural or intercollegiate athletics. |
| Amount: | 1 award of $900 |

C.G.A. Ontario Award for Excellence [C0025]
Apply by April 1 to Student Financial Services indicating intent to pursue the CGA program of professional studies. One award of $150 plus a credit equalling one year's tuition and course fees towards the CGA program (approximate value: $2,000) 

| Donor(s): | Certified General Accountants Association of Ontario |
| Qualification(s): | Graduating student who has a minimum cumulative average of 77% in Financial Accounting AGE*2220; Management Accounting AGE*2230; and Intermediate Accounting AGE*3330. |
| Amount: | 1 award of $150, plus 1 year tuition and course fee towards the C.G.A. program. (approximate value of $2,000) |

CFRU Volunteer Award [I0215]
Apply to the C.F.R.U. Board of Governors by April 30. 

| Donor(s): | Station Manager, C.F.R.U. |
| Qualification(s): | Applicants must be registered or graduating from the University of Guelph and have volunteered at C.F.R.U. for at least one year. The recipients will be selected on the basis of academic performance and volunteer work at C.F.R.U. |
| Amount: | 2 awards of $250 |

City of Guelph 175th Anniversary Awards [I0515]
Provided by the Guelph Community Foundation, in celebration of the 175th anniversary of the City of Guelph in 2002, as an investment for future generations. Apply to Student Financial Services, by October 7 of the second year of study, with a letter describing Guelph community and University community volunteer activities and extracurricular activities, a completed Need Assessment Form, and two reference letters not to exceed two pages in length from individuals familiar with the volunteer and/or community service contributions. Award may be held only once. 

| Donor(s): | The Guelph Community Foundation |
| Qualification(s): | Undergraduate degree students with more than 5.0 credits and less than 10.5 credits of full-time study must have maintained a cumulative 70% average in all courses completed (5.0 credits or more) in the first year study and have demonstrated leadership and financial need. Applicants must be graduates of a City of Guelph high school and be Canadian citizens or permanent residents at the time of application. Selection will include equally weighted consideration of academic performance, leadership both on and off campus and financial need. |
| Amount: | 1 award of $1,000 |
### IX. Scholarships and Other Awards, Bachelor of Computing

#### Class of 1970 Scholarship [10424]
Established by the Silver Anniversary celebrants to commemorate the 25th anniversary of the University Class of 1970. This award rotates among all six colleges on the main campus. The appropriate College Award Committee selects the candidate each Fall semester and the candidate is announced each October. Application not required.

**Donor(s):** Class 1970: 25th Reunion Gift

**Qualification(s):** Outstanding student in any degree program who has attained at least an 80% average in two consecutive semesters resulting in placement on the Deans’ Honours List.

**Amount:** 1 award of $1,400

#### Collège des ingénieurs de l'Université de Guelph Academic Scholarship [10073]
Application not required.

**Donor(s):** Collège des ingénieurs de l'Université de Guelph

**Qualification(s):** Students registered in any degree program. The primary academic qualification(s) required.

**Amount:** 1 award of $1,000

#### Dr. Charles Capstick Graduation Prize [C0558]
Provided by the Department of Computing and Information Science, these scholarships are awarded in May to students who have completed an undergraduate degree in a Computing and Information Science program and have achieved the highest and second highest cumulative averages at graduation. Application not required.

**Donor(s):** Department of Computing and Information Science

**Qualification(s):** Students who have completed an undergraduate degree in Computing and Information Science (CIS) in the previous twelve months.

**Amount:** 1 award of $500, 1 award of $300

#### Dr. James Linders Scholarship [10559]
Provided by the Department of Computing and Information Science, these scholarships are awarded in the Fall semester to students in a Computing and Information Science degree program that achieved the highest and second highest averages in Year 3 Computing and Information Science core courses. Application not required.

**Donor(s):** Department of Computing and Information Science

**Qualification(s):** Undergraduate students in a Computing and Information Science (CIS) degree program who have completed from 15.0 to 17.5 course credits and have taken the CIS core courses required for Year 3.

**Amount:** 1 award of $500, 1 award of $300

#### Dr. Mary McLeish Scholarship [10560]
Established by the College of Physical and Engineering Science to honour Earl B. MacNaughton, former head of the Department of Physics and founding Dean of the College of Physical Science. Application not required. One award of a plaque-mounted medal and $250.

**Donor(s):** Department of Computing and Information Science

**Qualification(s):** Recipients who have completed an undergraduate degree in Computing and Information Science (CIS) in the previous twelve months.

**Amount:** 1 award of $500, 1 award of $300

#### E.B. MacNaughton Convocation Prize [C0171]
Established by the College of Physical and Engineering Science to honour Earl B. MacNaughton, former head of the Department of Physics and founding Dean of the College of Physical Science. Application not required. One award of a plaque-mounted medal and $250.

**Donor(s):** The College of Physical and Engineering Science

**Qualification(s):** The College of Physical and Engineering Science nominee for the Winegard Medal.

**Amount:** 1 award of $250, 1 Plaque-mounted medal

#### Evelyn Matheson Pepper Memorial Scholarship [10538]
The daughters and grandchildren of Evelyn Matheson Pepper, a Mac ’33 graduate, provide this scholarship. Application not required.

**Donor(s):** Ms. Barbara Stuart and Ms. Susan Pepper

**Qualification(s):** Student who achieves the highest grade in the course FRHD*3200, Practicum in Child, Youth and Family I, offered by the department of FRAN.

**Amount:** 1 award of $1,000

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#### Other Scholarships

##### Deans’ Scholarships [10323]
Offered by the Board of Governors. Recipients will be selected by each of the College Awards Committees. Winners will be notified in the Fall semester. Application not required.

**Donor(s):** Board of Governors

**Qualification(s):** Students registered in any degree program. The primary academic criteria is placement on the Deans’ Honours List for two consecutive semesters, excluding semesters 7 and 8, in the previous Fall/Winter/Spring sequence.

**Amount:** 150 awards of $1,000

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[10424]: #IX. Scholarships and Other Awards, Bachelor of Computing
[10073]: #IX. Scholarships and Other Awards, Bachelor of Computing
[10559]: #IX. Scholarships and Other Awards, Bachelor of Computing
[10560]: #IX. Scholarships and Other Awards, Bachelor of Computing
[10538]: #IX. Scholarships and Other Awards, Bachelor of Computing
[10323]: #IX. Scholarships and Other Awards, Bachelor of Computing
[10404]: #IX. Scholarships and Other Awards, Bachelor of Computing
[10076]: #IX. Scholarships and Other Awards, Bachelor of Computing
[10031]: #IX. Scholarships and Other Awards, Bachelor of Computing
[10561]: #IX. Scholarships and Other Awards, Bachelor of Computing
[10560]: #IX. Scholarships and Other Awards, Bachelor of Computing
[10538]: #IX. Scholarships and Other Awards, Bachelor of Computing

George A. Gray OAC ’51 Varsity Scholarships [I0487]
Established in memory of George Gray, OAC ’51, a Guelph football lineman and a great player of the game. Apply to Student Financial Services by October 7 providing a covering letter describing on- and off-campus academic and extra-curricular activities and a completed Need Assessment Form. Awarded at the annual Athletics Banquet.

Donor(s): Mrs. George A. Gray
Qualification(s): Undergraduate degree or diploma students who are members of varsity teams and in the second, third, fourth or fifth year of full-time study, with a minimum 70% average in all courses completed in the previous year of study and have demonstrated leadership. Selection will include equally weighted consideration of academic performance, leadership and financial need. Preference will be given to members of the varsity football team. Examples of leadership may include academic tutoring, mentoring team mates, assisting in the organization and promotion of varsity and/or intramural athletics, participation on university committees, such as in residences, on Senate or in Colleges, and similar off-campus activities. Students may receive the award up to four times.

Amount: 2 awards of $1,250

Governor General’s Medal [C0044]
Established by the Office of the Governor General of Canada. Application not required.

Donor(s): The Chancellery
Qualification(s): Restricted to those undergraduate students in any degree program who are graduating in June, or who have graduated in the previous two convocations, with the highest cumulative average.

Amount: 1 Silver medal

Guelph Varsity Athletic Accessibility Scholarship [I0518]
Established by alumni and friends of the University of Guelph. Apply to Student Financial Services by October 7 providing a covering letter describing on- and off-campus academic and extra-curricular activities and a completed Need Assessment Form. Awarded at the annual Athletics Banquet.

Donor(s): Alumni and friends of the University of Guelph
Qualification(s): Undergraduate degree or diploma students, with at least 5.0 credits and less than 20.5 credits, who are members of a varsity athletic team and who have demonstrated financial need, are eligible to apply. Students must have maintained at least a 70% cumulative average in all courses completed in the previous year of study (minimum 3.0 credits). Selection will be based upon equally weighted consideration of academic performance and evidence of leadership qualities. Students may receive the award up to four times.

Amount: 2 awards of $1,250

John Eccles Scholarship [I0093]
Nominations, accompanied by appropriate résumés, are to be submitted to Student Financial Services by April 1.

Donor(s): Student Housing Services
Qualification(s): Full-time student registered in semester 2, 3, 4, 5 or 6 and living in residence in the Winter semester who has a cumulative 80% average or who is in the top 10% of his/her program. The recipient must have demonstrated responsibility and leadership qualities through participation in residence related activities. Residence Life Staff and paid members of Interhall Council and Hall Councils are not eligible.

Amount: 1 award of $600

Kenneth W. Hammond Award [I0045]
The evaluation of the student will be based on the final essay in the "Environmental Perspectives and Human Choice: 5000 Days" course. The selection committee will be comprised of 4 persons: the donor, the Director of the Arboretum, the Dean of Physical and Engineering Science and the Dean of Biological Science. Application not required.

Donor(s): Kenneth W. Hammond
Qualification(s): Student who has demonstrated an understanding of the world’s resource situation and its proper use by humankind.

Amount: 1 award of $1,000

Kip Hunter Prize [I0139]
For the best essay, written by an undergraduate in a philosophy course. The essay may be either a required assignment for a course (in which case either the student or the instructor may submit it) or it may be specially prepared for the competition. Submission of essays is to the Chair, Department of Philosophy, by the end of the 12th week of the Winter semester.

Donor(s): Faculty, students and staff of the Philosophy Department
Qualification(s): Any undergraduate who has registered for a philosophy course during the academic year in which the prize is awarded.

Amount: 1 Book prize

Lange and Prokipcak Chemistry Scholarship [I0528]
This scholarship was established by Professor Gordon L. Lange, Professor Joe M. Prokipcak, friends and colleagues. Professors Gordon L. Lange and Joe M. Prokipcak were valued members of the chemistry Faculty who retired in 2001. Their excellence in teaching was recognized within the university and nationwide, winning them a total of eleven teaching awards. Application not required.

Donor(s): Professor Gordon L. Lange, Professor Joe M. Prokipcak and friends and colleagues
Qualification(s): Student in CPES with the highest average grade in CHEM*1040,1050 and 2700 who has completed a minimum of 10.0 credits up to a maximum of 14.75 credits.

Amount: 1 award of $1,000

Leonard Conolly Exchange Student Scholarship [I0446]
Established by students, faculty, staff and friends to honour Prof. Leonard Conolly, professor of drama, Chair of the Department of Drama, 1981-88, and Associate Vice-President Academic, 1988-1992. Apply to the Centre for International Programs by April 5, for visiting during the subsequent Fall or Winter semesters.

Donor(s): Students, staff and faculty of Dr. Leonard Conolly
Qualification(s): Full-time visiting exchange undergraduate or graduate student, registered at Guelph for at least one semester, from any country in the South (a list of eligible countries and exchange partner universities is available in the Centre for International Programs). Selection, by the Centre for International Programs, will be based on assessment of (a) a one-page submission describing the significance of the student visiting Guelph to the program of study at the partner exchange university; (b) two faculty references of one-page each; and (c) consistent high performance in the course work completed, as documented by a transcript of program grades to date, submitted by the home university.

Amount: 1 award of $1,000

Peter Mann Award for Embryology [I2032]
Provided by colleagues and friends of Dr. Mann, a scholar and teacher of Embryology from 1954-1987. Application not required.

Donor(s): Colleagues and friends of Dr. Mann
Qualification(s): Student from any degree program completing the course BIOM*3040 in Biomedical Embryology, with the highest academic standing.

Amount: 1 award of $100

Stephanie Wilken Volunteer Award [I0449]
Established by the Wilken family in memory of Stephanie Wilken, BA 1995. Apply to Student Financial Services with letter indicating the kind and extent of volunteer activities at the Wellness Centre by October 1. Selection committee is the Senate Committee on Awards on the recommendation of the Student Wellness Educator at the Wellness Centre.

Donor(s): Bev and Darlene Wilken
Qualification(s): Student registered in any undergraduate degree program, who has been a volunteer for at least two semesters at the Wellness Centre. The recipient will be selected on the basis of academic performance in all courses to date and volunteer work at the Wellness Centre.

Amount: 1 award of $1,000

The Jack and Lillian MacDonald Scholarship [E0379]
Family, friends, and colleagues of Lillian MacDonald and Dr. Jack MacDonald. Vice-President, Academic, of the University of Guelph from 1986 to 1995, have established a scholarship that recognizes their commitment to increasing the accessibility of post-secondary education to aboriginal persons. Apply by letter to Student Financial Services by April 1.

Donor(s): Jack and Lillian MacDonald
Qualification(s): In the first instance, the award will be given to an entering student coming from the Grand River Polytechnical Institute (GRPI) and who has received the highest cumulative average in the Native University Access Program. If there is no entering student in any one year, the scholarship will be awarded to the in-course student who is a graduate of the GRPI who has the highest cumulative average at the University.

Amount: 1 award of $900

Thomas H. Peters Scholarship [I0233]
Application not required.

Donor(s): Friends and associates of Thomas H. Peters
Qualification(s): Student in any academic program of the University who has completed courses in Land Reclamation (e.g. CROP*2280, SOIL*3200), with a minimum 10.0 credits completed. Applicants must have a minimum of 70% cumulative average and have demonstrated an interest and aptitude in the area of crops and land reclamation.

Amount: 1 award of $250
### IX. Scholarships and Other Awards, Bachelor of Computing

<table>
<thead>
<tr>
<th>Scholarship Name</th>
<th>Amount</th>
<th>Qualification(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waterloo-Wellington CA Association Award</td>
<td>1 award of $500</td>
<td>The recipient will have good academic standing, have participated in extracurricular activities, and demonstrated a keen interest in beekeeping.</td>
</tr>
<tr>
<td>United Steelworkers LU4120 Scholarship</td>
<td>1 award of $800</td>
<td>Student who is a member or former member, or who is from the immediate family of a member of United Steelworkers LU 4120, and who is entering semester 2, 3, or 4 of a degree or diploma program in the Winter semester. If more than one candidate, the award will be given to the one who has attained the highest relative class standing in his or her previous full-time semester, provided that a minimum of 70% standing is obtained.</td>
</tr>
<tr>
<td>Van Stralen and Van Der Hoeven Memorial Scholarship</td>
<td>2 awards of $400</td>
<td>Graduating student who excels both academically and in extracurricular activities.</td>
</tr>
<tr>
<td>W.C. Winegard Medal</td>
<td>1 Gold medal</td>
<td>Graduating student who excels both academically and in extracurricular activities.</td>
</tr>
<tr>
<td>W.N. Vaughan Medal</td>
<td>1 award of $100</td>
<td>Student senator who has high academic standing and who has made a substantial contribution to student life and to the University, particularly through involvement in and commitment to Senate activities.</td>
</tr>
<tr>
<td>Waterloo-Wellington CA Association Award</td>
<td>1 award of $100</td>
<td>Student achieves the highest academic standing in the course AGEC*3330, Intermediate Accounting.</td>
</tr>
<tr>
<td>3M Canada Scholarships</td>
<td>2 awards of $1,000</td>
<td>Students entering Year 4 (ie. having completed a minimum of 15.0 credits) with demonstrated financial need and high academic achievement.</td>
</tr>
<tr>
<td>CPES Dean's Scholarship - ACCESS</td>
<td>1 award of $750</td>
<td>Students with demonstrated financial need in any major program in C.P.E.S. in, or beyond, second year. A minimum 80% cumulative average is required. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).</td>
</tr>
<tr>
<td>Earl B. MacNaughton Entrance Scholarships</td>
<td>2 awards of $1,000</td>
<td>Students currently registered in the final year of an honours program in the College of Physical and Engineering Science with high academic standing, demonstrated financial need, and who have completed a minimum of 15.0 credits. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).</td>
</tr>
<tr>
<td>Eleanor Morgan &amp; Bill Archibald Scholarships</td>
<td>1 award of $1,000</td>
<td>Students currently registered in any program with a minimum of 5.0 credits who have cumulative 70% average, have demonstrated community involvement, and financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).</td>
</tr>
<tr>
<td>Erin Demers Memorial Scholarship</td>
<td>1 award of $1,000</td>
<td>Student who has lived in an on-campus residence during the first semester and who has a cumulative average of 70%. This award is payable in the second year (ie completed 5.0 course credits) of study. Preference will be given to students with demonstrated financial need and who have participated significantly in extracurricular activities.</td>
</tr>
<tr>
<td>Euclid-Hitachi Scholarships</td>
<td>2 awards of $1,500</td>
<td>Students with a minimum cumulative average of 70% with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).</td>
</tr>
</tbody>
</table>

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**Scholarship Notes:**
- For scholarships requiring a Need Assessment Form, apply by January 31. For_need-based scholarships, apply by October 7. Awarded in the Winter semester unless otherwise specified.
- For need-based scholarships, contact Student Financial Services for information on the Need Assessment Form. For general scholarships, contact the appropriate department or organization for application details.

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**General Statements on Awards:**
- Scholarships are awarded on the basis of academic achievement, financial need, and sometimes other criteria such as community involvement.
- Students must meet the government-mandated terms for receipt of an OSOTF award, which includes maintaining a specified standing in their degree program and demonstrating financial need.
- Additional details and eligibility criteria may be found in the specific scholarship descriptions above.
<table>
<thead>
<tr>
<th>Scholarship Name</th>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Graham Family Incentive Scholarship</td>
<td>[I4506]</td>
<td>Provided by Harvey Graham (OAC '39) with the assistance of the Ontario government's OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD.</td>
</tr>
<tr>
<td>Donor(s):</td>
<td>Harvey Graham OAC '39</td>
<td></td>
</tr>
<tr>
<td>Qualification(s):</td>
<td>Students entering the fourth year of a four year degree program, maintaining at least a 70% program average and demonstrating financial need, who have previously received the Harvey Graham Bursary. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).</td>
<td></td>
</tr>
<tr>
<td>Amount:</td>
<td>1 award of $5,000</td>
<td></td>
</tr>
<tr>
<td>Jay Majithia Scholarship</td>
<td>[I4518]</td>
<td>Provided to honour Professor Jay Majithia, in recognition of his support and leadership while a faculty member in the Department of Computing and Information Science, by Margaret Middleton, C.P.E.S. '86 with the assistance of the Ontario government's OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services by October 7 and if applicable, attach a letter stating research interest and involvement. Awarded in the Winter semester. ACCESS AWARD.</td>
</tr>
<tr>
<td>Donor(s):</td>
<td>Mrs. Margaret L. Middleton</td>
<td></td>
</tr>
<tr>
<td>Qualification(s):</td>
<td>Students with demonstrated financial need. Preference will be given to eligible students who are applying for, or participating in, departmental research, including a special project or an independent study option. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).</td>
<td></td>
</tr>
<tr>
<td>Amount:</td>
<td>2 awards of $500</td>
<td></td>
</tr>
<tr>
<td>TARA LYN J. GIULIANI MEMORIAL AWARD</td>
<td>[I0375]</td>
<td>In memory of TARA LYNN GIULIANI, a bright young woman, who did not let her blindness stand in the way of her studies at the University of Guelph. Apply to the Centre for Students with Disabilities by November 25.</td>
</tr>
<tr>
<td>Donor(s):</td>
<td>The Giuliani Family</td>
<td></td>
</tr>
<tr>
<td>Qualification(s):</td>
<td>Most academically promising applicant with a demonstrated disability and having financial need.</td>
<td></td>
</tr>
<tr>
<td>Amount:</td>
<td>1 award of $500</td>
<td></td>
</tr>
<tr>
<td>In-course Awards with Financial Need</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bette Stephenson Accessiblity Bursary</td>
<td>[I3054]</td>
<td>In recognition of the work of Dr. Bette Stephenson in supporting students with learning disabilities, the University of Guelph offers bursaries to students who have demonstrated financial need and who have a learning disability. These bursaries will be used to offset the costs of a required assessment, or the purchase of a computer that is required to support their learning needs. Apply to Student Financial Services, with a completed Need Assessment Form by October 7. Awarded in the Winter semester.</td>
</tr>
<tr>
<td>Donor(s):</td>
<td>University of Guelph</td>
<td></td>
</tr>
<tr>
<td>Qualification(s):</td>
<td>Undergraduate students who have demonstrated financial need and who have a learning disability. Students must be full-time (as defined by OSAP regulations) and Canadian citizens or permanent residents.</td>
<td></td>
</tr>
<tr>
<td>Amount:</td>
<td>3 awards to a maximum of $1,500</td>
<td></td>
</tr>
<tr>
<td>Brinson Partners Inc. Bursaries</td>
<td>[I3526]</td>
<td>Brinson Partners Inc., with the assistance of the Ontario government's OSOTF program, has established these bursaries. Apply with a completed need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD.</td>
</tr>
<tr>
<td>Donor(s):</td>
<td>Brinson Partners Inc.</td>
<td></td>
</tr>
<tr>
<td>Qualification(s):</td>
<td>Students with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).</td>
<td></td>
</tr>
<tr>
<td>Amount:</td>
<td>2 awards of $1,500</td>
<td></td>
</tr>
<tr>
<td>Burnbrae Farms Bursaries</td>
<td>[I3525]</td>
<td>Established by Burnbrae Farms, with the assistance of the Ontario government's OSOTF program to assist students with financial need to continue their studies as full-time students. Apply with a completed need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD.</td>
</tr>
<tr>
<td>Donor(s):</td>
<td>Burnbrae Farms</td>
<td></td>
</tr>
<tr>
<td>Qualification(s):</td>
<td>Full-time students with demonstrated financial need. Preference will be given to students with a demonstrated interest in poultry science. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).</td>
<td></td>
</tr>
<tr>
<td>Amount:</td>
<td>2 awards of $1,500</td>
<td></td>
</tr>
<tr>
<td>Class of '72: 25th Reunion Bursaries</td>
<td>[I3512]</td>
<td>Established by the Class of '72: 25th Reunion Fund with the assistance of the Ontario government's OSOTF program to support students who wish to study full-time. Apply to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD.</td>
</tr>
<tr>
<td>Donor(s):</td>
<td>Class of '72: 25th Reunion</td>
<td></td>
</tr>
<tr>
<td>Qualification(s):</td>
<td>Full-time students with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).</td>
<td></td>
</tr>
<tr>
<td>Amount:</td>
<td>3 awards of $1,000</td>
<td></td>
</tr>
<tr>
<td>Elizabeth Burton Bursaries</td>
<td>[I3503]</td>
<td>Mrs. Elizabeth Burton, with the assistance of the Ontario government's OSOTF program, provides bursaries to students with demonstrated financial need. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD. A number of awards totalling $2,900.</td>
</tr>
<tr>
<td>Donor(s):</td>
<td>Mrs. Elizabeth Burton</td>
<td></td>
</tr>
<tr>
<td>Qualification(s):</td>
<td>Students in second, third or fourth year with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).</td>
<td></td>
</tr>
<tr>
<td>Amount:</td>
<td>Several awards of $2,900</td>
<td></td>
</tr>
<tr>
<td>Gryphon Investment Council Bursaries</td>
<td>[I3513]</td>
<td>Established by Gryphon Investment Counsel, with the assistance of the Ontario government's OSOTF program. Awarded in the Winter semester. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD.</td>
</tr>
<tr>
<td>Donor(s):</td>
<td>Gryphon Investment Council Inc.</td>
<td></td>
</tr>
<tr>
<td>Qualification(s):</td>
<td>Full-time students with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).</td>
<td></td>
</tr>
<tr>
<td>Amount:</td>
<td>2 awards of $1,500</td>
<td></td>
</tr>
<tr>
<td>Guelph Compassionate Health Bursary</td>
<td>[I3061]</td>
<td>This bursary has been established and approved by the Student Health and Dental Committee to assist students facing unforeseen health needs above and beyond the benefits offered through the mandatory University of Guelph student health plan. Submit a Financial Need Assessment application accompanied by the physician recommendation, cost estimates and physician contact information to the Awards Officer, Student Financial Services. The application will be reviewed throughout the semester to handle emergencies immediately.</td>
</tr>
<tr>
<td>Donor(s):</td>
<td>Student Health and Dental Plan Reserve</td>
<td></td>
</tr>
<tr>
<td>Qualification(s):</td>
<td>All currently registered students at the University of Guelph that are covered under the University of Guelph mandatory Student Health Plan. The student must require treatment for a condition not currently or previously covered by the Student Health Plan.</td>
<td></td>
</tr>
<tr>
<td>Amount:</td>
<td>Several varies to a maximum $1,500</td>
<td></td>
</tr>
<tr>
<td>Guelph Student Assistance Program</td>
<td>[I3056]</td>
<td>These bursaries have been established and approved by undergraduate students through student referendum to assist undergraduate and University of Guelph campus diploma students in financial need. Apply to Student Financial Services with a completed Need Assessment Form by October 7. Typically, awarded in the Winter semester.</td>
</tr>
<tr>
<td>Donor(s):</td>
<td>Undergraduate Students</td>
<td></td>
</tr>
<tr>
<td>Qualification(s):</td>
<td>Full-time undergraduate students registered in any degree program with demonstrated financial need. Preference will be given to students who are not eligible for provincial and/or federal assistance programs such as Ontario Student Assistance Program (OSAP) and/or Canada Student Loan Program (CSLP).</td>
<td></td>
</tr>
<tr>
<td>Amount:</td>
<td>Several awards of varying amounts up to $1,000</td>
<td></td>
</tr>
<tr>
<td>Howard and Myrtle Rogers Bursaries</td>
<td>[I3537]</td>
<td>Provided by the Estate of Howard and Myrtle Rogers, with the assistance of the Ontario government's OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD.</td>
</tr>
<tr>
<td>Donor(s):</td>
<td>The Estate of Howard and Myrtle Rogers</td>
<td></td>
</tr>
<tr>
<td>Qualification(s):</td>
<td>Students with demonstrated financial need. Preference will be given to students from Wellington County. Students are encouraged to apply for an award in each year of study. The award may have been held in previous years but students must demonstrate on-going financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).</td>
<td></td>
</tr>
<tr>
<td>Amount:</td>
<td>10 up to $2,000</td>
<td></td>
</tr>
</tbody>
</table>
### Scholarships and Other Awards, Bachelor of Computing

#### Mary I. Whitelock Bursaries [I3524]
- Donor(s): Estate of Mary I. Whitelock
- Qualification(s): All undergraduate, graduate or OAC diploma students with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).
- Amount: 13 awards of $2,000

#### Irvine and Grace Black Memorial Bursary [I3051]
- Donor(s): Family and friends of Irvine and Grace Black
- Qualification(s): Full-time undergraduate students registered in any degree program with demonstrated financial need. Preference will be given to applicants who are, or have been, active in the 4-H Club and/or a Women’s Institute.
- Amount: 1 award of $500

#### International Emergency Medical Aid Assistance [I3059]
- Donor(s): University of Guelph
- Qualification(s): Any International student registered in a degree program at the University of Guelph with a minimum registration of 1.50 course credits.
- Amount: Several awards of varying amounts

#### International Student Bursaries [I3009]
- Donor(s): Mrs. Norma L. Valeriote
- Qualification(s): Students who are citizens of Third World countries, as defined by the United Nations, who are registered in a degree or diploma program and who demonstrate financial need.
- Amount: Several varies

#### Robert Auger Humanitarian Bursary [I3058]
- Donor(s): Office of Registrarial Services
- Qualification(s): Students who require assistance through this fund should apply in confidence to the Assistant Registrar, Financial Aid, Student Financial Services.
- Amount: Several awards of $500

#### Scotiabank Bursaries [I3532]
- Donor(s): Scotiabank
- Qualification(s): Full-time students with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).
- Amount: 2 awards of $1,500

#### University of Guelph Access Bursaries [I3522]
- Donor(s): University of Guelph Alumni Association
- Qualification(s): Full-time in-course students with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).
- Amount: 2 awards of $1,000

#### University of Guelph Child Care Bursaries [I3053]
- Donor(s): University of Guelph
- Qualification(s): Students, supporting (a) child(ren) who demonstrate greatest financial need, to offset the costs of child care. To be eligible, undergraduate students must be full-time (as defined by OSAP regulations) and Canadian citizens or permanent residents with demonstrated financial need.
- Amount: Several awards of $500, Several awards of $2,000

#### University of Guelph International Bursary [I3013]
- Donor(s): The Co-operatives, Credit Unions, friends and associates of Prof. R.P. Forshaw
- Qualification(s): Undergraduate students who have financial need. Preference may be given to candidates who have been or are members of a co-operative or credit union.
- Amount: 1 award of $400

#### University of Guelph Alumni Association Access Bursaries [I3523]
- Donor(s): University of Guelph Alumni Association
- Qualification(s): Full-time students with demonstrated financial need. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD
- Amount: Several awards of $500, Several awards of $2,000

#### University of Guelph Undergraduate In-Course Bursaries (MET-TR-UG) [I3037]
- Donor(s): University of Guelph
- Qualification(s): Ontario students registered for full-time studies (as defined by OSAP) in a degree program with demonstrated financial need and a minimum of 2.0 course credits completed.
- Amount: Several awardsranging in value from $100 to $3,000

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Last Revision: October 18, 2005  
2005-2006 University of Guelph Undergraduate Calendar
IX. Scholarships and Other Awards, Bachelor of Computing

**University of Guelph Undergraduate In-Course Bursaries (NON OSAP TR) [I3047]**

The University of Guelph offers in-course bursaries to students who have demonstrated financial need. Apply to Student Financial Services, with a completed Need Assessment Form by October 7. Awarded in the Winter semester.

**Donor(s):** University of Guelph  
**Qualification(s):** Undergraduate students registered for full-time studies (as defined by OSAP) in a degree program with demonstrated financial need and a minimum of 2.0 course credits completed.

**Amount:** Several awards to a maximum of $800

**University Police Bursaries [I3019]**

The University Police have made available a number of bursaries. Apply to Student Financial Services with a completed Need Assessment Form by October 7.

**Donor(s):** The University Police  
**Qualification(s):** Full-time undergraduate and graduate students who have financial need.

**Amount:** Several varies

**University Student Assistance Program [I3057]**

These bursaries have been established and approved by the University of Guelph to assist undergraduate and University of Guelph campus diploma students in financial need. Apply to Student Financial Services with a completed Need Assessment Form by October 7. Typically, awarded in the Winter semester.

**Donor(s):** University of Guelph  
**Qualification(s):** Full-time undergraduate students registered in any degree program with demonstrated financial need. Preference will be given to students who are not eligible for provincial and/or federal assistance programs, such as Ontario Student Assistance Program (OSAP) and/or Canada Student Loan Program (CSLP).

**Amount:** Several awards of varying amount to a maximum of $1,000

**In-course Travel Grants**

**Arthur D. Latornell Undergraduate Travel Grants [T0058]**

An endowment fund established in memory of Arthur D. Latornell, OAC ’50, who had a life-long professional career in resource management and conservation and a special interest in helping young people. The funds are given to provide twenty-five travel grants. These travel grants are offered to assist students in attending conferences, courses, co-op student exchanges or study abroad programs in these areas. Students may receive this grant only once. Apply to Student Financial Services. Deadline dates are June 1 for Fall travel, October 1 for Winter travel, and February 1 for Summer travel. Up to 80% of estimated travel costs to a maximum of $1,000.

**Donor(s):** The Estate of Arthur D. Latornell  
**Qualification(s):** Students in semester 3 and above. Students must have at least a 70% average and a primary area of interest related to natural resources management, environmental science, conservation, soil science and/or rural development. Students will be asked to submit a one-page review of their travel experience, including the role the travel grant played, to the University after completion of the travel.

**Amount:** several up to a maximum of $1000

**Canadian Friends of the Hebrew University in Jerusalem Travel Bursary [T4532]**

The Canadian Friends of the Hebrew University of Jerusalem, with the assistance of the Ontario government's OSOTF program, have established these travel scholarships to assist students study at the Hebrew University of Jerusalem. Apply by letter with a completed Need Assessment Form to Student Financial Services by May 1. ACCESS AWARD. Up to three awards totalling $7500.

**Donor(s):** Canadian Friends of the Hebrew University in Jerusalem  
**Qualification(s):** Undergraduate degree students in either the second or third year of study, Masters students in the first year of study, and Doctoral students in the first three years of study are eligible to apply. Applicants must provide documentation that they have approval from the Hebrew University of Jerusalem (i) to take courses and (ii) for the period of their visit. Students must also arrange appropriate University of Guelph approvals for a "Letter of Permission" prior to applying. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 3 Awards with varying amounts

**Richard and Sophia Hungerford Undergraduate Travel Scholarships [T4508]**

The estate of Richard and Sophia Hungerford, with the assistance of the Ontario government's OSOTF program, has established an endowment to provide travel scholarships to undergraduate students with demonstrated financial need who wish to study in developing countries, or attend conferences on development. Apply to Student Financial Services with a description of the intended travel, an estimate of the travel costs and a completed Need Assessment Form at least one month prior to departure. Deadline dates are June 1 for Fall travel, October 1 for Winter travel, and February 1 for Summer travel. ACCESS AWARD.

**Donor(s):** The Estate of Richard Hungerford  
**Qualification(s):** Registered undergraduate students with demonstrated financial need who have at least a 70% cumulative average in the last 2 semesters of full-time equivalent study are eligible. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** Several awards of varying amounts to a maximum of $1,000

**University of Guelph Travel Scholarships [T0421]**

The University of Guelph, through the sale of Guelph London House, has established an endowment to provide travel scholarships to undergraduate and graduate students who wish to study outside of Canada but need financial support to do so. A total of $35,000 is available in the fund. Apply to Student Financial Services with a completed Travel Grant Application and Financial Need Assessment Form by October 1 for Winter travel, February 1 for Spring travel and June 1 for Fall travel.

**Donor(s):** University of Guelph  
**Qualification(s):** Registered undergraduate and graduate students that have completed 5.0 credits with demonstrated financial need who have a minimum 70% cumulative average in the last two semesters of full-time equivalent study are eligible to apply. The value of the award will depend on the assessed financial need. The scholarship can cover additional costs of travelling outside of Canada including: airfare, administrative costs, and differential costs of accommodation.

**Amount:** Several up to $1,000
# Bachelor of Landscape Architecture

Please refer to the General Statement on Awards for:
- Award Eligibility
- ACCESS Awards Eligibility
- Ontario Student Opportunity Trust Fund (OSOTF) Program
- How Awards are Paid

The University reserves the right to amend awards subject to the availability of funds.

## Entrance Scholarships

### Amos & William Lowe Memorial Scholarship [E0158]

Endowed by the late William B. Lowe of Fort Frances, Ontario. Preference will be given first to eligible students from the district of Rainy River, then from the district of Kenora or Thunder Bay, and finally from the remaining districts of Northern Ontario. Application not required. Two awards of $1,250 paid in two installments of $625.

Donor(s): William B. Lowe and Amos Edgar Lowe

Qualification(s): Student entering any of the undergraduate degree programs of the Ontario Agricultural College.

Amount: 2 awards of $1,250

### Angelo and Frank Agro Undergraduate Scholarship [E0520]

Provided by the Agro Scholarship Fund. Apply by April 1 to Student Financial Services, including a covering letter describing your activities within 4H (details of 4H club membership, creativity in support of 4H activities, participation in activities and events, volunteer leadership roles, etc.) and a letter of reference from a 4H club official attesting to your involvement. $4,000 ($1,000 annually for four years).

Donor(s): The Frank Agro Estate

Qualification(s): Full-time students entering semester 1 who have attained a minimum 80% admission average in their graduating year from high school. The scholarship will be awarded to the eligible student demonstrating the greatest past or continuing involvement with 4H activities. Recipients must maintain full-time studies and at least a 70% program average each year for continuation of the award.

Amount: 1 award of $4,000

### Board of Governors’ Scholarships [E0317]

The scholarship will be paid in eight equal installments with the first and second payments payable shortly after registration in semesters 1 and 2. The 3rd to 8th payments are contingent upon obtaining a minimum average of 80% over the previous two semesters of full-time study. Students who fail to qualify for a payment may re-qualify by subsequently obtaining an 80% or better average over the previous two semesters of full-time study. Application not required. Twenty-five awards of $8,000 ($2,000 annually for 4 years).

Donor(s): Board of Governors

Qualification(s): Outstanding students entering semester 1

Amount: 25 awards of $8,000

### Elite Swine Entrance Scholarship [E0532]

This award is provided by Elite Swine Inc. to assist students entering an OAC undergraduate Program. High schools will forward nominations to the OAC Awards Committee by September 15.

Donor(s): Elite Swine Inc.

Qualification(s): High school graduates who have applied to OAC undergraduate programs, based on admission average, contributions to their schools and communities and on their potential to become leaders in society. Preference will be given to students with a strong interest in animal science, particularly swine production.

Amount: 5 awards of $1,000

### Gordon W. Innes Scholarship [E0140]

Established by the Gordon W. "Sparky" Innes Scholarship Fund Committee of the Woodstock Agricultural Society. Application not required.

Donor(s): Gordon W. 'Sparky' Innes Scholarship Fund Committee of the Woodstock Agricultural Society

Qualification(s): Student from Oxford County with the highest admission average.

Amount: 1 award of $1,400

## International Student Entrance Scholarships [E0408]

In support of the University’s strategic direction of internationalism, entrance scholarships are available each Fall semester to the top international students entering their first semester of an undergraduate degree program at the University of Guelph. Applicants must submit all relevant documentation for admission consideration by March 1 to be considered for a scholarship. These scholarships are awarded on a competitive basis. Application not required.

Donor(s): University of Guelph

Qualification(s): Students on a “student visa” entering an undergraduate degree program at the University of Guelph with a record of high academic achievement and extracurricular involvement, and studying full-time. This award is offered for the first year of study.

Amount: Several awards ranging in value from $500 - $6,000

### J.D. MacLachlan Scholarship [E0170]

Provided by the family of J.D. MacLachlan. Application not required.

Donor(s): The J.D. MacLachlan Trust

Qualification(s): Student entering the University with the highest admission average.

Amount: 1 award of $1,500

### Lincoln Alexander Chancellor’s Scholarship [E0493]

These scholarships, named to honour Lincoln Alexander, Chancellor of the University of Guelph and former Lieutenant Governor of Ontario, on his 80th birthday, are awarded to academically distinguished entering students who are Aboriginal, persons with a disability or members of a racial minority, and who have made significant contributions to their schools and communities and demonstrated the potential to become leaders in society. These scholarships are intended to enhance student diversity and are amongst the most prestigious entrance awards at the University of Guelph. Nominations are made by high school principals and are to be sent to the Associate Registrar, Student Financial Services, by March 1. Two awards of $20,000 ($5,000 annually for 4 years).

Donor(s): Many Donors

Qualification(s): Entering students of academic distinction who are Aboriginal, persons with a disability or members of a racial minority, and who have made significant contributions to their schools and communities and demonstrated the potential to become leaders in society. Financial need may be taken into consideration.

Amount: 2 awards of $20,000

### McArthur-Humphries Scholarships [E0183]

Provided by the Wilhelmmina McArthur Humphries Trust Fund. This scholarship is awarded to students entering any undergraduate degree program and are based on the highest admission average. Application not required.

Donor(s): Wilhelmmina McArthur-Humphries Trust Fund

Qualification(s): Students entering semester 1 with a minimum 75% admission average. Preference will be given to those students from Lanark and Wellington Counties. An equal number of awards are available to students from each county. In the case of insufficient eligible applicants from one county, the awards will be given to eligible applicants from the other county.

Amount: 12 awards of $1,000

### P.A.J. Clarke Family Scholarship [E0381]

Paul and Aileen Clarke and their family established the endowment for this entrance scholarship in honour of Paul’s father, the late Jack Clarke, a Blenheim area farmer. Apply by letter outlining extracurricular and/or community activities, ensuring that you have completed a Need Assessment Form for Entrance Awards, and submit to Student Financial Services by April 1. Students who have applied to the University for admission will receive information on completing a Need Assessment Form for Entrance Awards from the University early in the calendar year. This award is not tenable with the President’s or Lincoln Alexander Chancellor’s Scholarship. Annual payments are contingent upon full-time enrolment and maintaining a minimum 70% average on the previous Fall and Winter semesters. One award of $12,000 ($3,000 annually for 4 years).

Donor(s): Paul and Aileen Clarke

Qualification(s): Students with a minimum 80% average with a record of leadership and community participation are eligible. Preference will be given to candidates from Blenheim district or Kent County and who were raised, or have worked, on a farm. Students may be contacted to provide special need circumstances if there is a short list of equal candidates.

Amount: 1 award of $12,000

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Last Revision: October 18, 2005

2005-2006 University of Guelph Undergraduate Calendar
President's Scholarship [E0238]
The most prestigious entrance awards at the University of Guelph. Twelve scholarships of $20,000 ($5,000 annually), named to honour their donors or distinguished members of the University, are awarded to entering students of academic distinction who have made significant contributions to their schools and communities and demonstrated the potential to become leaders in society. Nomination packages are sent to Canadian high schools each fall. This award is tenable with the University of Guelph Entrance Scholarship, University of Guelph Accessibility Scholarship or the Registrar's Entrance Scholarship, but no other Entrance Scholarships. High school principals must submit their nominations using the application material sent to the school's Guidance Office in the fall, to the Associate Registrar, Student Financial Services, by March 1.

Donor(s):
Dick Brown
Two of the scholarships, endowed by Dr. Patrick Lett are awarded to winners whose leadership qualities best reflect those demonstrated by Dick Brown in University Athletics from 1968 to 1988.

Cecil H. Franklin and Ingrid Franklin
In honour of Cecil Franklin, former Chair of the Board of Governors and Honorary Fellow of the University, the University of Guelph has named one of these twelve prestigious entrance awards to recognize his financial contribution through his estate to the President's Entrance Scholarship program.

Charles S. Humphrey
In memory of Charles S. Humphrey, a former President of Hart Chemical Company Canada Ltd. and long-time friend, the University has named one of these twelve prestigious entrance awards to recognize his financial contribution through his estate to the President's Entrance Scholarship program.

Burton C. Matthews
The University of Guelph has named one of these twelve prestigious entrance awards in memory of Jack R. Longstaff to recognize his financial contribution through his estate to the President's Entrance Scholarship program.

Kathleen and Frederick Metcalf
Mr. and Mrs. F.T. Metcalf of Guelph have endowed this award. After a distinguished career in cable TV, broadcasting and publishing, the late Mr. Metcalf retired as President of Maclean Hunter Ltd. and Chairman of the Board of Maclean Hunter Cable Ltd. He was Honorary Chairman of Maclean Hunter Cable Ltd. and a member of the University of Guelph Heritage Board (1996).

Roland Farms Limited
Two of the scholarships are endowed by the four shareholders of Rol-land Farms Limited of Blenheim, Ontario, Hank, Peter, Arthur and Eric Vander Pol and their families. The Vander Pol families are generous supporters of a number of University projects and programs.

Lillian Stewart Usher
The University of Guelph has named one of these twelve prestigious entrance awards in honour of Lillian Stewart Usher a friend of the University to recognize her financial contribution through her estate to the President's Entrance Scholarship program.

Qualification(s):
Entering students of academic distinction who have made significant contributions to their schools and communities and demonstrated the potential to become leaders in society.

Amount:
12 awards of $20,000

The Jack and Lillian MacDonald Scholarship [E0379]
Family, friends, and colleagues of Lillian MacDonald and Dr. Jack MacDonald, Vice-President, Academic, of the University of Guelph from 1986 to 1995, have established a scholarship that recognizes their commitment to increasing the accessibility of post-secondary education to aboriginal persons. Apply by letter to Student Financial Services by April 1.

Donor(s):
Jack and Lillian MacDonald

Qualification(s):
In the first instance, the award will be given to an entering student coming from the Grand River Polytechnic Institute (GRPI) and who has received the highest cumulative average in the Native University Access Program. If there is no entering student in any one year, the scholarship will be awarded to the in-course student who is a graduate of the GRPI who has the highest cumulative average at the University.

Amount:
1 award of $900

University of Guelph Entrance Scholarships [E0291]
This scholarship is based on the final admission average and program of study that is calculated by Admission Services, based on 12U, 12M, or OAC courses. These will be awarded based on the final high school grades that are submitted to the University in July. A minimum 85% final admission average guarantees an award. The scholarship will be applied directly to the student's financial account in two equal payments in the Fall and Winter Semesters. You can view the scholarship amounts at: http://www.uoguelph.ca/studfin/fall_current_merit.shtml. Application not required.

Donor(s):
University of Guelph

Qualification(s):
Students entering their first year of post-secondary studies for the first time and have a minimum 85% final admission average.

Amount:
Several awards ranging in value from $1,500 to $3,000

University of Guelph Faculty Association Scholarship [E0292]
Award is payable at $750 per annum in the student's 1st, 3rd, and 5th semester levels, provided a cumulative average of at least a 70% is maintained. To receive the final payment, the recipient would normally be entering the 5th semester level within a period of 3 calendar years from the date of admission. Application not required.

Donor(s):
University of Guelph Faculty Association

Qualification(s):
Student entering an undergraduate degree program at the University of Guelph with the highest admission average who has been a resident in the County of Wellington during the previous twelve months.

Amount:
1 award of $2,250

W. Penri Morris Memorial Scholarship [E0430]
Established by the family in memory of Penri Morris, who was killed World War II action in 1944 at the age of 21. Penri grew up on the family fruit farm near Forest, Ontario. After graduating from high school, he joined the Royal Canadian Air Force and was attached to the Royal Air Force Bomber Command as a navigator at the time of this death. Awarded to the student with the highest cumulative academic performance above 75% in all courses of the last year in high school study (full-time or equivalent study). Application not required.

Donor(s):
Prof. Rosalina Morris

Qualification(s):
Students entering first year of any undergraduate program from North Lambton Secondary School in Forest, Ontario, in their absence, from North Lambton County, and their absence, from Ontario.

Amount:
1 award of $1,000

Entrance Scholarships with Financial Need

Bill Klopp Memorial Award [E0150]
Priority will be given to a student from Kitchener-Waterloo Collegiate and Vocational Institute. Apply by letter, to Student Financial Services, outlining extracurricular activities and by completing the online Entrance Financial Need Assessment Application (N.A.F) by May 1. Students should complete the Entrance Financial Need Assessment application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student).

Donor(s):
Ross and Mary Lou Klopp

Qualification(s):
Presented to a student entering semester 1 from the cities of Kitchener or Waterloo who has demonstrated involvement in extracurricular activities who has shown satisfactory academic performance and who has financial need.

Amount:
1 award of $500

Registrar's Entrance Scholarships [E0384]
Established by the University of Guelph to support entering undergraduate students with identified financial need. Students should complete the online Entrance Financial Need Assessment application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student). Deadline to submit the application is May 1. Scholarship offers will be made in May. This award is not tenable with the University of Guelph Accessibility Scholarship, but can be held with all other Entrance Awards.

Donor(s):
University of Guelph

Qualification(s):
Students entering a full-time undergraduate program on the basis of financial need and academic merit.

Amount:
500 awards of $2,000

2005-2006 University of Guelph Undergraduate Calendar Last Revision: October 18, 2005
IX. Scholarships and Other Awards, Bachelor of Landscape Architecture

Rol-Land Farms Scholarships [E4519]
Established by Rol-Land Farms, with the assistance of the Ontario government's OSOTF program, to attract entering students who might otherwise not be able to attend university for financial reasons. Students should complete the online Financial Need Assessment application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student). Deadline to submit the application is May 1. ACCESS AWARD

| Donor(s): | Rol-Land Farms |
| Qualification(s): | Outstanding entering undergraduate students with demonstrated financial need and a minimum 80% cumulative average. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards). |
| Amount: | 13 awards of $2,000 |

University of Guelph Accessibility Scholarship [E3038]
Established by the University of Guelph to support entering undergraduate students with demonstrated financial need. Students should complete the online Entrance Financial Need Assessment application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student). Deadline to submit the application is May 1. Scholarship offers will be made in May. This award is not tenable with the Registrar's Entrance Scholarship, but can be held with all other Entrance Awards. Approximately 150 awards of $9,000 ($3,000 in year one and $2,000 in years 2, 3 and 4).

| Donor(s): | University of Guelph |
| Qualification(s): | Students entering a full-time undergraduate program on the basis of financial need and academic excellence. |
| Amount: | 150 awards of $9,000 |

Entrance Awards with Financial Need

Fred Hindle Bursary [E3500]
Awarded in memory of Fred Hindle, O.A.C.'38, a long-time generous supporter of his Alma Mater, who at the time of his death, wanted future students to have the same opportunity for an education as he had received. This bursary is awarded with the assistance of the Ontario government's OSOTF program. This bursary is dependent on continued demonstration of financial need and successful completion of study to advance into the next year. Students should complete the online Entrance Financial Need Assessment application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student). Deadline to submit the application is May 1. ACCESS AWARD. One award of $6,000 ($1,500 annually for 4 years).

| Donor(s): | W. Roy Hindle and family |
| Qualification(s): | An entering O.A.C. degree student who has demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statement on Awards). |
| Amount: | 1 award of $6,000 |

Harvey Graham Bursary [E3030]
Provided by Harvey Graham (OAC '39), Students should complete the online Entrance Financial Need Assessment application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student). Deadline to submit the application is May 1.

| Donor(s): | Harvey Graham, OAC '39 |
| Qualification(s): | Student who has demonstrated financial need with preference given to a student who comes from a working farm. Students graduating from Lindsay C. V. I., Fenelon Falls Secondary School, or L. E. Weldon Secondary School will be considered. Each application must be accompanied by a reference letter from the Reeve of the student's home township. |
| Amount: | 1 award of $1,700 |

International Student Entrance Bursaries [E3043]
In support of the University's strategic direction of internationalism, entrance bursaries are available each fall to assist some of our international students entering an undergraduate degree program at the University of Guelph. Students who have applied to the University of Guelph will receive an application form.

| Donor(s): | University of Guelph |
| Qualification(s): | Students on a student visa entering an undergraduate degree program at the University of Guelph with demonstrated financial need. |
| Amount: | Several awards of $1,000, Several awards of $3,000 |

Justine Eves Learning Disability Accessibility Bursaries [E3057]
In memory of Justine Eves who was dyslexic and died tragically in an automobile accident in 1995, the Justin Eves Foundation together with the University of Guelph provides these awards to entering Undergraduate students who have a learning disability and who has demonstrated financial need. Students should complete the online Entrance Financial Need Assessment application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student). Deadline to submit the application is May 1.

| Donor(s): | Justin Eves Foundation |
| Qualification(s): | Any entering undergraduate student that has financial need and a documented learning disability as defined by the Ontario Psychological Association. |
| Amount: | 4 awards of $3,000 |

Robert Arthur Stewart Bursaries [E3272]
Established in memory of Mrs. Elsa H. Stewart of Pakenham, Ontario. Mr. Stewart graduated from the Ontario Agricultural College in 1933 and Mrs. Stewart from Macdonald Institute in 1932. Applicants for these bursaries should have a good academic record and an active interest in community affairs. A recommendation from the County agricultural representative or the secondary school principal is required and should be sent to Student Financial Services by April 1. Students should complete the online Entrance Financial Need Assessment application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student).

| Donor(s): | The Estate of Mrs. H. Stewart |
| Qualification(s): | Students from the Ontario Counties of Lanark and Renfrew, and the Regional Municipality of Ottawa-Carleton, entering the 1st semester of a degree program at the University of Guelph. |
| Amount: | 12 awards of $500 |

In-course Scholarships

Bill Taylor Memorial Scholarship [I0280]
Applications to include a supporting letter from a coach or intramural supervisor. Apply to Student Financial Services by April 1.

| Donor(s): | AMF Canada Ltd. |
| Qualification(s): | Full-time student that has completed a minimum of 7.5 credits, but no more than 17.5 credits in the Winter term who has a cumulative 80% average or who is in the top 10% of his/her program. The recipient must have demonstrated responsibility and leadership qualities through participation in intramural or intercollegiate athletics. |
| Amount: | 1 award of $900 |

Blackburn Scholarship [I0404]
In commemoration of the 125th Anniversary of the Ontario Agricultural College, Dr. D.J. Blackburn, a retired faculty member in Rural Extension Studies and former Director of the Associate Diploma Program has established this scholarship. Apply by letter, citing athletic contributions, to the OAC Awards Committee by April 1.

| Donor(s): | D.J. Blackburn |
| Qualification(s): | OAC degree or diploma student who has participated in intercollegiate athletics and maintained a minimum cumulative average of 70% while registered at Guelph. Athletic excellence and leadership will be used to determine the recipient. |
| Amount: | 1 award of $1,000 |

C.G.A. Ontario Award for Excellence [C0025]
Apply by April 1 to Student Financial Services indicating intent to pursue the CGA program of professional studies. One award of $150 plus a credit equalling one year's tuition and course fees towards the CGA program (approximate value: $2,000)

| Donor(s): | Certified General Accountants Association of Ontario |
| Qualification(s): | Graduating student who has a minimum cumulative average of 77% in Financial Accounting (AGEC2220), Management Accounting (AGEC2230); and Intermediate Accounting (AGEC*3330). |
| Amount: | 1 award of $150, plus 1 year tuition and course fee towards the CGA program. (approximate value of $2,000) |

C.M. and D.J. Switzer Scholarships [I0276]
Apply by April 1 to Student Financial Services.

| Donor(s): | C.M. and D.J. Switzer |
| Qualification(s): | One to a student who has completed semester 2 of the Diploma in Agriculture program and one to a student who has completed semester 4 of a degree program in OAC Recipients will have a minimum of 70% standing and have demonstrated outstanding leadership ability in OAC student organizations, class executives and College Royal. |
| Amount: | 2 awards of $2,000 |
IX. Scholarships and Other Awards, Bachelor of Landscape Architecture

Canadian Agri-Marketing Association (Ontario) Scholarship [I0541]
Provided by the Canadian Association of Agri-Marketing Association (Ontario). Apply to the OAC awards Committee by April 1 with a summary of participation in the Ag Ec & Biz Society and in agri-marketing initiatives as well as a letter of recommendation from a faculty member.

**Donor(s):** Canadian Agri-Marketing Association (Ontario)

**Qualification(s):** Student who has completed a minimum of 10.0 credits with a minimum cumulative average of 70% who are members of OAC and the Ag Ec & Biz Society. Selection will be based on a combination of academic achievement and a demonstrated interest in agri-marketing.

**Amount:** 1 award of $1,500

Canadian Heritage Garden Foundation Scholarship [I0551]
The Canadian Heritage Garden Foundation provides this scholarship to a student registered in Landscape Architecture that has demonstrated creativity and excellence in planting design. Examples might include heritage, residential, ecological, park and designs which explore pest control issues. Preference will be given to students with an interest in roses. Application not required.

**Donor(s):** The Canadian Heritage Garden Foundation

**Qualification(s):** Students registered in Landscape Architecture who have completed 10.5 credits.

**Amount:** 1 award of $1,000

CFRU Volunteer Award [I0215]
Apply to the CFRU Board of Governors by April 30.

**Donor(s):** Station Manager, CFRU

**Qualification(s):** Applicants must be registered or graduating from the University of Guelph and have volunteered at CFRU for at least one year. The recipients will be selected on the basis of academic performance and volunteer work at CFRU.

**Amount:** 2 awards of $250

Charles McGowan Memorial Prize [C0187]
Fund established in memory of the late Lieutenant Charles McGowan. Application not required.

**Donor(s):** Charles McGowan Memorial Fund

**Qualification(s):** Outstanding graduating student in an OAC degree program.

**Amount:** 1 award of $300

City of Guelph 175th Anniversary Awards [I0515]
Provided by the Guelph Community Foundation, in celebration of the 175th Anniversary of the City of Guelph in 2002, as an investment for future generations. Apply to Student Financial Services, by October 7 of the second year of study, with a letter describing Guelph community and University community volunteer activities and extracurricular activities, a completed Need Assessment Form, and two reference letters not to exceed two pages in length from individuals familiar with the volunteer and/or community service contributions. Award may be held only once.

**Donor(s):** The Guelph Community Foundation

**Qualification(s):** Undergraduate degree students with more than 5.0 credits and less than 10.5 credits of full-time study must have maintained a cumulative 70% average in all courses completed (5.0 credits or more) in the first year study and have demonstrated leadership and financial need. Applicants must be graduates of a City of Guelph high school and be Canadian citizens or permanent residents at the time of application. Selection will include equally weighted consideration of academic performance, leadership both on and off campus and financial need.

**Amount:** 1 award of $1,000

Class of ’51 OAC Leadership Awards [C0063]
Established by Year ’51 OAC, on the occasion of its 45th anniversary. At the discretion of the OAC Awards Committee students may be selected before graduation. Application not required.

**Donor(s):** Year ’51 OAC

**Qualification(s):** Students graduating from the degree program in a major in an OAC department who have a 70% standing in the final year of study and who have demonstrated leadership in the College or University extracurricular activities.

**Amount:** 4 awards of $1,000

Class of ‘67 OAC Centennial Scholarship [I0067]
Apply to Student Financial Services by April 1.

**Donor(s):** Class of OAC ’67

**Qualification(s):** Student majoring in an OAC department who through activity in all branches of college life as well as scholastic achievement has made an outstanding contribution to the University.

**Amount:** 1 award of $1,000

Class of 1905 Scholarship [I0060]
Established by the graduating class of 1905. Apply to Student Financial Services, by April 1.

**Donor(s):** Graduating Class of 1905

**Qualification(s):** Student who has completed 15.0 course credits, is registered in a major in an Ontario Agricultural College, is considered to be the most outstanding student in the class and who, through activity in all branches of college life, as well as proficiency in scholarship during the program, has done most for the college, for fellow students and for personal development.

**Amount:** 1 award of $300

Class of 1970 Scholarship [I0424]
Established by the Silver Anniversary Celebrants to commemorate the 25th anniversary of the University Class of 1970. This award rotates among all six colleges on the main campus. The appropriate College Award Committee selects the candidate each Fall semester and the candidate is announced each October. Application not required.

**Donor(s):** Class 1970: 25th Reunion Gift

**Qualification(s):** Outstanding student in any degree program who has attained at least an 80% average in two consecutive semesters resulting in placement on the Deans’ Honours List.

**Amount:** 1 award of $1,400

Collins Barrow Award [I0040]
Offered by Collins Barrow, a national firm of Chartered Accountants. Awarded in the Winter semester. Application not required.

**Donor(s):** Collins Barrow Chartered Accountants

**Qualification(s):** Student with the highest grade in course AGEC*3330, Intermediate Accounting, in the Fall semester. In the event of a tie, the scholarship will be given to the student with the highest cumulative average in their program.

**Amount:** 1 award of $500

CSLA Undergraduate Medal [C0136]
Offered by the Canadian Society of Landscape Architects. Application not required.

**Donor(s):** The Canadian Society of Landscape Architects

**Qualification(s):** Student graduating from the Bachelor of Landscape Architecture program who has maintained a high academic standing and contributed to the School and the profession.

**Amount:** 1 Medal

David F. Boyes Apiculture Scholarship [I0031]
Established in memory of David Boyes a technician in the Apiculture Field Laboratory. Application not required.

**Donor(s):** The Apiculture Club

**Qualification(s):** Student registered in the Fall semester who achieves high academic standing in Introductory Apiculture (ENVB*2210) in the previous year, demonstrates an interest in apiculture and who has participated in extracurricular activities.

**Amount:** 1 award of $150

Deans’ Scholarships [I0323]
Offered by the Board of Governors. Recipients will be selected by each of the College Awards Committees. Winners will be notified in the Fall semester. Application not required.

**Donor(s):** Board of Governors

**Qualification(s):** Students registered in any degree program. The primary academic criteria is placement on the Deans’ Honours List for two consecutive semesters, excluding semesters 7 and 8, in the previous Fall/Winter/Spring sequence.

**Amount:** 150 awards of $1,000

DMG Scholarship [I0428]
Established by DMG Landscape Architects, Burnaby, B.C. Application not required.

**Donor(s):** DMG Landscape Architects

**Qualification(s):** B.L.A. student who has completed semester 4 with a minimum 75% cumulative average and demonstrated outstanding ability in landscape design.

**Amount:** 1 award of $1,000
Evelyn Matheson Pepper Memorial Scholarship [I0538]
The daughters and grandchildren of Evelyn Matheson Pepper, a Mac '33 graduate, provide this scholarship. Application not required.

**Donor(s):** Ms. Barbara Stuart and Ms. Susan Pepper  
**Qualification(s):** Student who achieves the highest grade in the course FRHD*3200, Practicum in Child, Youth and Family I, offered by the department of FRAN.  
**Amount:** 1 award of $1,000

Garden Club of Toronto Scholarship [I0109]
Apply to Associate Registrar, Student Financial Services by April 1.

**Donor(s):** The Garden Club of Toronto  
**Qualification(s):** Student who has completed semester 6 of the program in Landscape Architecture. The recipient will have high academic standing and exhibit a strong interest in ornamental plant materials.  
**Amount:** 1 award of $1,000

George A. Gray O.A.C. ’51 Varsity Scholarships [I0487]
Established in memory of George Gray, O.A.C. ’51, a Guelph football lineman and a great player of the game. Apply to Student Financial Services by October 7 providing a covering letter describing on- and off-campus academic and extra-curricular activities and a completed Need Assessment Form. Awarded at the annual Athletics Banquet.

**Donor(s):** Mrs. George A. Gray  
**Qualification(s):** Undergraduate degree or diploma students who are members of varsity teams and in the second, third, fourth or fifth year of full-time study, with a minimum 70% average in all courses completed in the previous year of study and have demonstrated leadership. Selection will include equally weighted consideration of academic performance, leadership and financial need. Preference will be given to members of the varsity football team. Examples of leadership may include academic tutoring, mentoring team mates, assisting in the organization and promotion of varsity and/or intramural athletics, participation on university committees, such as in residences, on Senate or in Colleges, and similar off-campus activities. Students may receive the award up to four times.

**Amount:** 2 awards of $1,250

Governor General’s Medal [C0044]
Established by the Office of the Governor General of Canada. Application not required.

**Donor(s):** The Chancellery  
**Qualification(s):** Restricted to those undergraduate students in any degree program who are graduating in June, or who have graduated in the previous two convocations, with the highest cumulative average.  
**Amount:** 1 Silver medal

Guelph Varsity Athletic Accessibility Scholarship [I0518]
Established by alumni and friends of the University of Guelph. Apply to Student Financial Services by October 7 providing a covering letter describing on- and off-campus academic and extra-curricular activities and a completed Need Assessment Form. Awarded at the annual Athletics Banquet.

**Donor(s):** Alumni and friends of the University of Guelph  
**Qualification(s):** Undergraduate degree or diploma students, with at least 5.0 credits and less than 20.5 credits, who are members of a varsity athletic team and who have demonstrated financial need, are eligible to apply. Students must have maintained at least a 70% cumulative average in all courses completed in the previous year of study (minimum 3.0 credits). Selection will be based upon equally weighted consideration of academic performance and evidence of leadership qualities. Students may receive the award up to four times.

**Amount:** 2 awards of $1,250

Howard B. Dunnington-Grubb Scholarships [I0092]
Offered by the Sheridan Nurseries. Application not required.

**Donor(s):** J. Wilhelm Stenson, Sheridan Nurseries Limited  
**Qualification(s):** Students who have completed semester 6 in the Landscape Architecture program. Students with a minimum of 70% standing and outstanding design ability are eligible.  
**Amount:** 2 awards of $750

John Eccles Scholarship [I0093]
Nominations, accompanied by appropriate résumés, are to be submitted to Student Financial Services by April 1.

**Donor(s):** Student Housing Services  
**Qualification(s):** Full-time student registered in semester 2, 3, 4, 5 or 6 and living in residence in the Winter semester who has a cumulative 80% average or who is in the top 10% of his/her program. The recipient must have demonstrated responsibility and leadership qualities through participation in residence related activities. Residence Life Staff and paid members of Interhall Council and Hall Councils are not eligible.  
**Amount:** 1 award of $600

Kenneth W. Hammond Award [I0045]
The evaluation of the student will be based on the final essay in the “Environmental Perspectives and Human Choice: 5000 Days” course. The selection committee will be comprised of 4 persons: the donor, the Director of the Arboretum, the Dean of Physical and Engineering Science and the Dean of Biological Science. Application not required.

**Donor(s):** Kenneth W. Hammond  
**Qualification(s):** Any undergraduate who has registered for a philosophy course during the academic year in which the prize is awarded.  
**Amount:** 1 Book prize

Landscape Architecture Alumni Scholarships [I0329]
Provided by the Alumni of the School of Landscape Architecture. Students, faculty or alumni may nominate eligible students to the School of Landscape Architecture by October 30.

**Donor(s):** Landscape Architecture Alumni  
**Qualification(s):** Students enrolled in the B.L.A. program who have just completed either semester 2 or 6. The recipient(s) will be selected on the basis of academic performance and participation in leadership extracurricular activities.  
**Amount:** 1 award of $1,000

Leonard Conolly Exchange Student Scholarship [I0446]
Established by students, faculty, staff and friends to honour Prof. Leonard Conolly, professor of drama, Chair of the Department of Drama, 1981-88, and Associate Vice-President Academic, 1988-92. Apply to the Centre for International Programs by April 5, for visiting during the subsequent Fall or Winter semesters.

**Donor(s):** Students, staff and friends of Dr. Leonard Connolly  
**Qualification(s):** Full-time visiting exchange undergraduate or graduate student, registered at Guelph for at least one semester, from any country in the South (a list of eligible countries and exchange partner universities is available in the Centre for International Programs). Selection, by the Centre for International Programs, will be based on assessment of (a) a one-page submission describing the significance of the student visiting Guelph to the program of study at the partner exchange university (b) two faculty references of one-page each, and (c) consistent high performance in the course work completed, as documented by a transcript of program grades to date, submitted by the home university.  
**Amount:** 1 award of $1,000

O.A.C. Students’ Federation Medal [C0217]
Application not required.

**Donor(s):** OAC  
**Qualification(s):** Graduating student in an undergraduate degree program in a major in an OAC department who has been an outstanding leader in student activities at the College level throughout his or her University career.  
**Amount:** 1 Medal
### OAC ’55 Scholarships [I0064]

Provided by the class of OAC ’55. Apply to Student Financial Services by April 1.

**Donor(s):** OAC ’55  
**Qualification(s):** Students who are registered in any OAC degree program or students enrolled in the B.SC.(Eng.) program and have completed semester 4.

- **Amount:** 1 award of $2,000

### OAC Centennial Graduate Fellowships [C0209]

The Ontario Agricultural College celebrated its 100th Anniversary in 1974. Many organizations and companies associated with the agricultural industry provided funds in conjunction with the Centennial activities. Funds have been established in perpetuity as a permanent commemoration of the Centennial of the College. Apply to Student Financial Services by April 1.

**Donor(s):** Dean, OAC  
**Qualification(s):** Students graduating from a degree program administered by the Ontario Agricultural College and who plan to pursue graduate studies in any department or school of the Ontario Agricultural College in the year of baccalaureate graduation are eligible for these fellowships. The fellowship will be based on academic achievement in semesters 7 and 8, as well as participation in extracurricular activities throughout the student's university career.

- **Amount:** 2 awards of $2,200

### Ontario Association of Landscape Architects Scholarship [I0219]

Application not required.

**Donor(s):** The Ontario Association of Landscape Architects  
**Qualification(s):** Student who has completed semester 5 of the B.L.A. program. The award is based on academic achievement, performance in design studio and leadership qualities.

- **Amount:** 1 award of $500

### Oxford County Pork Producers Scholarship (Degree) [I0531]

The Oxford County Pork Producers have made available this scholarship. Apply to OAC Awards Committee by April 1 with a letter of up to two pages in length including information about leadership, community involvement and pork industry involvement.

**Donor(s):** Oxford County Pork Producers  
**Qualification(s):** Any student who has completed a minimum of 5.0 credits in an OAC degree program with a minimum cumulative average of 70%, pork production background or interest in pork production/industry, and demonstrated leadership and/or community involvement. Preference will be given to students from Oxford County or surrounding area.

- **Amount:** 1 award of $1,000

### Peter Mann Award for Embryology [I2032]

Provided by colleagues and friends of Dr. Mann, a scholar and teacher of Embryology from 1954-1987. Application not required.

**Donor(s):** Colleagues and friends of Dr. Mann  
**Qualification(s):** Student from any degree program completing the course BIOM*3040 Biomedical Embryology, with the highest academic standing.

- **Amount:** 1 award of $100

### Stephanie Wilken Volunteer Award [I0449]

Established by the Wilken family in memory of Stephanie Wilken, BA 1995. Apply to Student Financial Services with letter indicating the kind and extent of volunteer activities at the Wellness Centre by October 1. Selection committee is the Senate Committee on Awards on the recommendation of the Student Wellness Educator at the Wellness Centre.

**Donor(s):** Bev and Darlene Wilken  
**Qualification(s):** Student registered in any undergraduate degree program, who has been a volunteer for at least two semesters at the Wellness Centre. The recipient will be selected on the basis of academic performance in all courses to date and volunteer work at the Wellness Centre.

- **Amount:** 1 award of $1,000

### The Jack and Lillian MacDonald Scholarship [E0379]

Family, friends, and colleagues of Lillian MacDonald and Dr. Jack MacDonald, Vice-President, Academic, of the University of Guelph from 1986 to 1995, have established a scholarship that recognizes their commitment to increasing the accessibility of post-secondary education to aboriginal persons. Apply by letter to Student Financial Services by April 1.

**Donor(s):** Jack and Lillian MacDonald  
**Qualification(s):** In the first instance, the award will be given to an entering student coming from the Grand River Polytechnical Institute (GRPI) and who has received the highest cumulative average in the Native University Access Program. If there is no entering student in any one year, the scholarship will be awarded to the in-course student who is a graduate of the GRPI who has the highest cumulative average at the University.

- **Amount:** 1 award of $900

### Thomas H. Peters Scholarship [I0233]

Application not required.

**Donor(s):** Mr. Jack Robinson  
**Qualification(s):** The recipient will have good academic standing, have participated in extracurricular activities, and demonstrated a keen interest in beekeeping.

- **Amount:** 1 award of $500

### United Steelworkers LU4120 Scholarship [I0293]

Apply to Student Financial Services, by January 31.

**Donor(s):** United Steelworkers LU4120  
**Qualification(s):** Student who is a member or former member, or who is from the immediate family of a member of United Steelworkers LU 4120, and who is entering semester 2, 3, or 4 of a degree or diploma program in the Winter semester. If there is more than one eligible candidate, the award will go to the one who has attained the highest relative class standing in his or her previous full-time semester, provided that a minimum of 70% standing is obtained.

- **Amount:** 1 award of $800

### Van Stralen and Van Der Hoeven Memorial Scholarship [I0296]

Application will be made by nominations signed by 4 currently registered students forwarded to Student Financial Services by April 1. Presentations are made in the Fall semester.

**Donor(s):** Mr. & Mrs. J. Van Stralen & family and Mr. & Mrs. Hans Van Der Hoeven & family  
**Qualification(s):** Students that have completed a minimum of 2.0 credits, but not more than 7.5 in the Winter term in any degree program who have obtained a minimum of 70% standing. Selection will be made on the basis of participation in university activities and in the student's home community as well as qualities of leadership, ambition and initiative.

- **Amount:** 2 awards of $400

### Victor Chanasyk Medal [C0265]

The decision will be based on the recommendation of the faculty in the School of Landscape Architecture. Application not required.

**Donor(s):** Victor Chanasyk  
**Qualification(s):** Graduating Bachelor of Landscape Architecture student who, in the view of the faculty, is deemed to be the most promising professional practitioner.

- **Amount:** 1 Medal

### W.C. Winegard Medal [C0311]

The W.C. Winegard Medal is the most prestigious graduating award of the University of Guelph. One student will be nominated by each College Awards Committee. The Senate Awards Committee will make the final selection and the medal will be awarded at Convocation in June. Application not required.

**Donor(s):** The Board of Governors of the University  
**Qualification(s):** Graduating student who excels both academically and in extracurricular activities.

- **Amount:** 1 Gold medal
W.N. Vaughan Medal [C0299]
Prospective candidates will be nominated by Senators and the medal winner will be chosen by a committee selected by the Striking Committee. The medal will be awarded at Convocation in June. Application not required.

**Donor(s):** Friends of Walter N. Vaughan
**Qualification(s):** Student senator who has high academic standing and who has made a substantial contribution to student life and to the University, particularly through involvement in and commitment to Senate activities.

**Amount:** 1 Medal

Waterloo-Wellington CA Association Award [I0367]

**Donor(s):** Waterloo-Wellington Chartered Accountants Association
**Qualification(s):** Student who achieves the highest academic standing in the course AGEC*3330, Intermediate Accounting.

**Amount:** 1 award of $100

### In-course Scholarships with Financial Need

#### 3M Canada Scholarships [I0564]
Provided by 3M Canada. Apply to Student Financial Services by October 7 with a completed Financial Need Assessment Application.

**Donor(s):** 3M Canada Company
**Qualification(s):** Students entering Year 4 (ie. having completed a minimum of 15.0 credits) with demonstrated financial need and high academic achievement.

**Amount:** 3 awards of $1,500

#### Eleanor Morgan & Bill Archibald Scholarships [I4540]
The family of Eleanor and Bill Archibald, with the assistance of the Ontario government's OSOTF program, provide this scholarship in memory of their parents. Apply with a completed Need Assessment Form and a letter outlining community involvement to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

**Donor(s):** The Family of Eleanor & Bill Archibald
**Qualification(s):** Students registered in any program with a minimum of 5.0 credits who have cumulative 70% average, have demonstrated community involvement, and financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 1 award of $1,000

#### Erinn Demers Memorial Scholarship [I0406]
The family and friends of Erinn Demers, a first-year student at the University of Guelph who was tragically killed in a car accident in 1996, have established this scholarship in her memory. Apply to Student Financial Services by April 1 with a completed Need Assessment Form, along with one supporting reference letter from a Residence Assistant, Residence Manager, or Residence Officer.

**Donor(s):** Family and friends of Erin Katrina Demers
**Qualification(s):** A student who has resided in an on-campus residence during the first semester and who has a cumulative average of 70%. This award is payable in the second year (ie completed 5.0 course credits) of study. Preference will be given to students with demonstrated financial need and who have participated significantly in extracurricular activities.

**Amount:** 1 award of $1,000

#### Euclid-Hitachi Scholarships [I4517]
Established by Euclid-Hitachi of Canada Ltd., with the assistance of the Ontario government's OSOTF program, to assist students with financial need to continue their studies as full-time students. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

**Donor(s):** Euclid-Hitachi of Canada Ltd.
**Qualification(s):** Students with a minimum cumulative average of 70% with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 2 awards of $1,500

#### Graham Family Incentive Scholarship [I4506]
Provided by Harvey Graham (OAC '39) with the assistance of the Ontario government's OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

**Donor(s):** Harvey Graham OAC '39
**Qualification(s):** Students entering the fourth year of a four year degree program, maintaining at least a 70% program average and demonstrating financial need, who have previously received the Harvey Graham Bursary. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 1 award of $5,000

#### R. Douglas and Kathleen Kennedy Scholarship in OAC [I0547]
Douglas (OAC '39) and Kathleen (MAC '39) Kennedy met at a "hop" on campus in 1937 and later married. They established this scholarship to celebrate their time on campus and their 62 years of marriage. Apply to Student Financial Services by October 7 with a completed Need Assessment Form.

**Donor(s):** Mrs. Kathleen Kennedy and the late Mr. R. Douglas Kennedy
**Qualification(s):** This scholarship will be awarded to a student in OAC with high academic achievement and demonstrated financial need.

**Amount:** 1 award of $1,000

#### Tara Lynn Giuliani Memorial Award [I0375]
In memory of Tara Lynn Giuliani, a bright young woman, who did not let her blindness stand in the way of her studies at the University of Guelph. Apply to the Centre for Students with Disabilities by November 25.

**Donor(s):** The Giuliani Family
**Qualification(s):** Most academically promising applicant with a demonstrated disability and having financial need.

**Amount:** 1 award of $500

### In-course Awards with Financial Need

#### Class of OAC '36 Bursaries [I3501]
Established by the Class of OAC '36 with the assistance of the Ontario government's OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

**Donor(s):** Class of 1936
**Qualification(s):** An OAC degree student enrolled in any degree program who has demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 2 awards of $500

#### Bette Stephenson Accessibility Bursary [I3054]
In recognition of the work of Dr. Bette Stephenson in supporting students with learning disabilities, the University of Guelph offers bursaries to students who have demonstrated financial need and who have a learning disability. These bursaries will be used to offset the costs of a required assessment, or the purchase of a computer that is required to support their learning needs. Apply to Student Financial Services, with a completed Need Assessment Form by October 7. Awarded in the Winter semester.

**Donor(s):** University of Guelph
**Qualification(s):** Undergraduate students who have demonstrated financial need and who have a learning disability. Students must be full-time (as defined by OSAP regulations) and Canadian citizens or permanent residents.

**Amount:** 3 awards to a maximum of $1,500

#### Brinson Partners Inc. Bursaries [I3526]
Brinson Partners Inc., with the assistance of the Ontario government's OSOTF program, has established these bursaries. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

**Donor(s):** Brinson Partners Inc.
**Qualification(s):** Students with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 2 awards of $1,500
Burnbrae Farms Bursaries [13525]

Established by Burnbrae Farms, with the assistance of the Ontario government's OSOTF program to assist students with financial need to continue their studies as full-time students. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

**Donor(s):** Burnbrae Farms

**Qualification(s):** Full-time students with demonstrated financial need. Preference will be given to students with a demonstrated interest in poultry science.

Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 2 awards of $1,500

Class of '72: 25th Reunion Bursaries [13512]

Established by the Class of '72: 25th Reunion Fund with the assistance of the Ontario government's OSOTF program to support students who wish to study full-time. Apply to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

**Donor(s):** Class of '72: 25th Reunion

**Qualification(s):** Full-time students with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 3 awards of $1,000

Class of OAC '33 Bursaries [13531]

Established by the class of OAC '33 on the occasion of their 65th Anniversary, with the assistance of the Ontario government's OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

**Donor(s):** Class of 1933 (in honour of the late Prof. W.J. Squirrell)

**Qualification(s):** OAC undergraduate students with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 3 awards of $500

David R. Leach Memorial Bursary [13534]

Provided in memory of David R. Leach by his family, with the assistance of the Ontario government's OSOTF program. David entered OAC in 1969 as a member of OAC '73 and graduated with a B.SC. in Agriculture in 1974. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

**Donor(s):** Mrs Deborah Leach-Sartor

**Qualification(s):** OAC undergraduate degree or diploma student who is physically disabled as determined by the Centre for students with Disabilities, has satisfactory academic standing and who has demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 1 award of $1,000

Donald P. Watson Bursaries in Horticultural Science [14501]

Established by the estate of Donald P. Watson, O.A.C. '34, with the assistance of the Ontario government's OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD. A number of awards ranging from $500 to $2,000.

**Donor(s):** The estate of Dr. Donald P. Watson

**Qualification(s):** Undergraduate students majoring in Horticultural Science, Landscape Architecture, Agronomy, Agricultural Science or Environmental Science, who have completed a minimum of 10.00 credits and who have demonstrated financial need. Recipients must have satisfactory academic standing in their last 10.00 credits. The scholarships will be awarded based on financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** Several awards of $500; Several awards of $2,000

Elizabeth Burton Bursaries [13503]

Mrs. Elizabeth Burton, with the assistance of the Ontario government's OSOTF program, provides bursaries to students with demonstrated financial need. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD. A number of awards totalling $2,900.

**Donor(s):** Mrs. Elizabeth Burton

**Qualification(s):** Students in second, third or fourth year with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** Several awards of $2,900

Gryphon Investment Council Bursaries [13513]

Established by Gryphon Investment Counsel, with the assistance of the Ontario government's OSOTF program. Awarded in the Winter semester. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

**Donor(s):** Gryphon Investment Council Inc.

**Qualification(s):** Full-time students with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 2 awards of $1,500

Guelph Compassionate Health Bursary [13061]

This bursary has been established and approved by the Student Health and Dental Committee to assist students facing unforeseen health needs above and beyond the benefits offered through the mandatory University of Guelph student health plan. Submit a Financial Need Assessment application accompanies by the physician recommendation, cost estimates and physician contact information to the Awards Officer, Student Financial Services. The application will be reviewed throughout the semester to handle emergenices immediately.

**Donor(s):** Student Health and Dental Plan Reserve

**Qualification(s):** All currently registered students at the University of Guelph that are covered under the University of Guelph mandatory Student Health Plan. The student must require treatment for a condition not currently or completely covered by the Student Health Plan.

**Amount:** Several varies to a maximum $1,000

Guelph Student Assistance Program [13056]

These bursaries have been established and approved by undergraduate students through student referendum to assist undergraduate and University of Guelph campus diploma students in financial need. Apply to Student Financial Services with a completed Need Assessment Form by October 7. Typically, awarded in the Winter semester.

**Donor(s):** Undergraduate Students

**Qualification(s):** Full-time undergraduate students registered in any degree program with demonstrated financial need. Preference will be given to students who are not eligible for provincial and/or federal assistance programs such as Ontario Student Assistance Program (OSAP) and/or Canada Student Loan Program (CSLP).

**Amount:** Several awards of varying amounts up to $1,000

Gwen Karr Memorial Bursary [13010]

Mr. T.K.C. Karr, O.A.C. '32, has provided an endowment fund to assist students in a degree or diploma program of the Ontario Agricultural College. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester.

**Donor(s):** Mr. T.K.C. Karr, OAC '32

**Qualification(s):** O.A.C. students with demonstrated financial need

**Amount:** Several varies

Howard and Myrtle Rogers Bursaries [13537]

Provided by the Estate of Howard and Myrtle Rogers, with the assistance of the Ontario government's OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

**Donor(s):** The Estate of Howard and Myrtle Rogers

**Qualification(s):** Students with demonstrated financial need. Preference will be given to students from Wellington County. Students are encouraged to apply for an award in each year of study. The award may have been held in previous years but students must demonstrate on-going financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 2 awards of $1,500

International Emergency Medical Aid Assistance [13059]

The University of Guelph provides support to International undergraduate students that are faced with unexpected, or unforeseen financial shortfalls due to a medical issue not covered by UHIP or the Student Dental/Medical insurance plans. Students should apply to the International Student Advisor, in the Centre for International Programs office, by completing an International Student Financial Need Assessment Form and submitting documentation to support the medical issue. These bursaries are awarded on an on-going basis.

**Donor(s):** University of Guelph

**Qualification(s):** Any International student registered in a degree program at the University of Guelph with a minimum registration of 1.50 course credits.

**Amount:** Several awards of varying amounts
<table>
<thead>
<tr>
<th>Scholarship Program</th>
<th>Amount</th>
<th>Qualification(s)</th>
<th>Donor(s)</th>
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<tbody>
<tr>
<td><strong>International Student Bursaries [I3009]</strong></td>
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<tr>
<td>Mrs. Norma L. Valeriote has made available a number of bursaries. Apply to the International Student Advisor.</td>
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<tr>
<td><strong>Donor(s):</strong> Mrs. Norma L. Valeriote</td>
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<tr>
<td><strong>Qualification(s):</strong> Students who are citizens of Third World countries, as defined by the United Nations, who are registered in a degree or diploma program and who demonstrate financial need.</td>
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<td><strong>Amount:</strong> Several varies</td>
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<tr>
<td><strong>Irvine and Grace Black Memorial Bursary [I3051]</strong></td>
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<tr>
<td>Established in memory of Irvine and Grace Black, by friends and family to recognize their many contributions to young people. Irvine, a well-known sheep breeder, was a judge at College Royal and the Royal Winter Fair for over fifty years, and Grace was active in the Women's Institute and the Fergus Fall Fair. Apply to Student Financial Services with a completed Need Assessment Form and a letter outlining involvement in the 4-H Club and/or a Women's Institute by October 7. Awarded in the Winter semester.</td>
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<tr>
<td><strong>Donor(s):</strong> Family and friends of Irvine and Grace Black</td>
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<tr>
<td><strong>Qualification(s):</strong> Full-time undergraduate students registered in any degree program with demonstrated financial need. Preference will be given to applicants who are, or have been, active in the 4-H Club and/or a Women's Institute.</td>
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<tr>
<td><strong>Amount:</strong> 1 award of $500</td>
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<tr>
<td><strong>Landscape Architecture ACCESS Bursaries [I4531]</strong></td>
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<td>Established by faculty and students in Landscape Architecture, with the assistance of the Ontario government's OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD</td>
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<tr>
<td><strong>Donor(s):</strong> Faculty members and students in Landscape Architecture</td>
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<tr>
<td><strong>Qualification(s):</strong> Undergraduate or graduate students registered in the School of Landscape Architecture with demonstrated financial need and a minimum B average in the previous academic year. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).</td>
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<td><strong>Amount:</strong> 2 awards of $500</td>
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<tr>
<td><strong>Mary I. Whitelock Bursaries [I3524]</strong></td>
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<td>Established by the estate of Mary I. Whitelock, a friend of the University, with the assistance of the Ontario government’s OSOTF program, to assist students who wish to study full-time but who need financial support to do so. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD</td>
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<tr>
<td><strong>Donor(s):</strong> Estate of Mary I. Whitelock</td>
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<tr>
<td><strong>Qualification(s):</strong> All undergraduate, graduate or OAC diploma students with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).</td>
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<td><strong>Amount:</strong> 13 awards of $2,000</td>
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<td><strong>O.A.C. ’55 Access Bursaries [I3517]</strong></td>
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<td>Provided by the class of O.A.C. ’55 with the assistance of the Ontario government’s OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD.</td>
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<tr>
<td><strong>Donor(s):</strong> O.A.C. Class of ’55</td>
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<td><strong>Qualification(s):</strong> Students at any semester level in an O.A.C. degree program or students enrolled in the B.Sc.(Eng.) program with demonstrated financial need and a 60% minimum cumulative average. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statement on Awards).</td>
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<td><strong>Amount:</strong> Several awards of $500</td>
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<td><strong>OAC ’57 Bursaries [I3518]</strong></td>
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<td>Provided by the Class of OAC ’57 with the assistance of the Ontario government’s OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD</td>
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<td><strong>Donor(s):</strong> OAC ’57 and the OAC Alumni Foundation</td>
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<td><strong>Qualification(s):</strong> OAC undergraduate degree students with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).</td>
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<td><strong>Amount:</strong> 5 awards of $1,000</td>
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<td><strong>OAC Alumni Foundation Access Bursaries [I3533]</strong></td>
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<td>Provided by the OAC Alumni Foundation, with the assistance of the Ontario government’s OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD</td>
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<tr>
<td><strong>Donor(s):</strong> OAC Alumni Foundation</td>
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<td><strong>Qualification(s):</strong> OAC undergraduate students with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).</td>
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<td><strong>Amount:</strong> 4 awards of $500</td>
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<td><strong>Ontario Co-operatives R.P. Forshaw Bursary [I3013]</strong></td>
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<td>The Co-operatives, Credit Unions, friends and associates of Prof. R. P. Forshaw have established this bursary. Apply to Student Financial Services with a completed Need Assessment Form by October 7. Awarded in the Winter semester. ACCESS AWARD.</td>
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<tr>
<td><strong>Donor(s):</strong> The Co-operatives, Credit Unions, friends and associates of Prof. R.P. Forshaw</td>
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<td><strong>Qualification(s):</strong> Undergraduate students who have financial need. Preference may be given to candidates who have been or are members of a co-operative or credit union.</td>
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<td><strong>Amount:</strong> 1 award of $400</td>
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<td><strong>Ontario Grape Growers Bursary [I3033]</strong></td>
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<td>Offered by the Ontario Grape Growers Action Committee. Apply to Student Financial Services with a completed Need Assessment Form by October 7. Awarded in the Winter semester. ACCESS AWARD.</td>
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<tr>
<td><strong>Donor(s):</strong> The Ontario Grape Growers Action Committee</td>
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<td><strong>Qualification(s):</strong> Students with good academic standing in semesters 3 to 6 of a degree program or semesters 3 to 4 of a diploma program administered by O.A.C., and demonstrated need of financial assistance.</td>
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<td><strong>Amount:</strong> Several vary</td>
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<tr>
<td><strong>Reid’s Heritage Homes Bursaries in Landscape Architecture [I3521]</strong></td>
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<td>Established by Reid’s Heritage Homes with the assistance of the Ontario government’s OSOTF program to assist students continue their studies as full-time students. Distributed in the Winter semester. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD.</td>
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<tr>
<td><strong>Donor(s):</strong> Reid’s Heritage Homes Ltd.</td>
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<td><strong>Qualification(s):</strong> Full-time students in the B.L.A. or M.L.A. program with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).</td>
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<td><strong>Amount:</strong> 2 awards of $1,500</td>
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<td><strong>Robb Travel Grants [T3028]</strong></td>
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<td>These travel grants have been provided in recognition of her love of agriculture, by the estate of Martha Robb, Paris, Ontario. Apply to the Dean, O.A.C. by April 15. Varying amounts (80% of the travel costs will be covered up to $750 per student).</td>
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<td><strong>Donor(s):</strong> The estate of Martha Robb</td>
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<tr>
<td><strong>Qualification(s):</strong> O.A.C. students who are attending another university on a Letter of Permission.</td>
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<td><strong>Amount:</strong> Several vary</td>
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<td><strong>Robert Auger Humanitarian Bursary [I3058]</strong></td>
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<td>This award, up to $500, has been established through the generosity of staff in the Office of Registrarial Services, family and friends of Robert Auger, a former Associate Registrar at the University of Guelph. It is intended as an emergency fund to assist students who unexpectedly find themselves in difficult financial circumstances, to provide grocery, and textbook vouchers.</td>
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<tr>
<td><strong>Donor(s):</strong> Office of Registrarial Services</td>
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<td><strong>Qualification(s):</strong> Students who require assistance through this fund should apply in confidence to the Assistant Registrar, Financial Aid, Student Financial Services.</td>
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<td><strong>Amount:</strong> Several awards of $500</td>
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</table>
Scotiabank Bursaries [I3532]
Established by Scotiabank, with the assistance of the Ontario government's OSOTF program, to assist students with financial need to continue their studies as full-time students. Distributed in the Winter semester. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

Donor(s): Scotiabank
Qualification(s): Full-time students with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).
Amount: 2 awards of $1,500

T.K. Warley Bursaries [I3510]
Established by O.A.C. Alumni Association, with the assistance of the Ontario government's OSOTF program, to recognize Professor T.K. Warley's significant contribution to the O.A.C. Alumni Foundation and to students through teaching and promotion/development of 'Experience Agriculture'. A degree student may receive this bursary twice. Apply by letter stating qualifications with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester.

AWARD

Donor(s): OAC Alumni Association
Qualification(s): Students with demonstrated financial need who are in semester 5 to 8 of any degree program within O.A.C. A minimum 65% is required, as is participation in student activities, governance, and/or college affairs. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).
Amount: 2 awards of $500

University of Guelph Access Bursaries [I3522]
Provided by alumni and friends of the University, with the assistance of the Ontario government's OSOTF program, to support undergraduate, graduate or OAC (Guelph) diploma students who wish to study full-time but who need financial support to do so. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD. Variable amounts from $500 to $2,000

Donor(s): Alumni and Friend of the University of Guelph
Qualification(s): Full-time students with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).
Amount: Several awards of $500, Several awards of $2,000

University of Guelph Alumni Association Access Bursaries [I3523]
Established by the University of Guelph Alumni Association, with the assistance of the Ontario government's OSOTF program, to support students who wish to study full-time but who need financial support to do so. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

Donor(s): University of Guelph Alumni Association
Qualification(s): Full-time in-course students with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).
Amount: 2 awards of $1,000

University of Guelph Child Care Bursaries [I3053]
In order to provide accessible child care to students with (a) child(ren), the University of Guelph offers bursaries to students who have demonstrated financial need. Apply to Student Financial Services, with a completed Need Assessment Form by October 7. Awarded in the Winter semester. A number of awards between $500 and $2,000.

Donor(s): University of Guelph
Qualification(s): Students, supporting (a) child(ren) who demonstrate greatest financial need, to offset the costs of child care. To be eligible, undergraduate students must be full-time (as defined by OSAP regulations) and Canadian citizens or permanent residents with demonstrated financial need.
Amount: Several awards of $500, Several awards of $2,000

University of Guelph International Bursary [I3048]
The University of Guelph provides support to International undergraduate students that are faced with unexpected, or unforeseen financial shortfalls while registered on campus. Students should apply to Benny Quay, in the Centre of International Programs office by completing an International Student Financial Need Assessment Form. These bursaries are awarded on an on-going basis.

Donor(s): University of Guelph
Qualification(s): Any International student registered in a degree program at the University of Guelph with a minimum registration of 1.50 course credits.
Amount: Several varies

University of Guelph Undergraduate In-Course Bursaries (MET-TR-UG) [I3067]
The University of Guelph offers in-course bursaries to students who have demonstrated financial need. Apply to Student Financial Services, with a completed Need Assessment Form by October 7. Awarded in the Winter semester.

Donor(s): University of Guelph
Qualification(s): Undergraduate students registered for full-time studies (as defined by OSAP) in a degree program with demonstrated financial need and a minimum of 2.0 course credits completed.
Amount: Several awards ranging in value from $100 to $3,000

University of Guelph Undergraduate In-Course Bursaries (NON OSOTF TR) [I3047]
The University of Guelph offers in-course bursaries to students who have demonstrated financial need. Apply to Student Financial Services, with a completed Need Assessment Form by October 7. Awarded in the Winter semester.

Donor(s): University of Guelph
Qualification(s): Undergraduate students registered for full-time studies (as defined by OSAP) in a degree program with demonstrated financial need and a minimum of 2.0 course credits completed.
Amount: Several awards to a maximum of $800

University Police Bursaries [I3019]
The University Police have made available a number of bursaries. Apply to Student Financial Services with a completed Need Assessment Form by October 7.

Donor(s): The University Police
Qualification(s): Full-time undergraduate and graduate students who have financial need.
Amount: Several varies

University Student Assistance Program [I3057]
These bursaries have been established and approved by the University of Guelph to assist undergraduate and University of Guelph campus diploma students in financial need. Apply to Student Financial Services with a completed Need Assessment Form by October 7. Typically, awarded in the Winter semester.

Donor(s): University of Guelph
Qualification(s): Full-time undergraduate students registered in any degree program with demonstrated financial need. Preference will be given to students who are not eligible for provincial and/or federal assistance programs such as Ontario Student Assistance Program (OSAP) and/or Canada Student Loan Program (CSLP).
Amount: Several awards of varying amount to a maximum of $1,000

In-course Travel Grants

A.W. Archibald Memorial Travel Grant [T4541]
Mr. A.W. Archibald, OAC '33 with the assistance of the Ontario government's OSOTF program, provide these travel grants to students who plan to travel for a semester abroad or to attend other schools outside of Canada for workshops or other academic related purposes. Apply to Student Financial Services with a letter outlining proposed travel plans and academic purpose accompanied by a letter of support from a faculty member or student advisor, a travel budget, and a completed Financial Need Assessment Form by October 7. ACCESS AWARD.

Donor(s): A.W. Archibald, OAC '33
Qualification(s): Undergraduate students in any OAC program with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).
Amount: Several up to $1000
Arthur D. Latornell Undergraduate Travel Grants [T0058]

An endowment fund established in memory of Arthur D. Latornell, OAC '50, who had a life-long professional career in resource management and conservation and a special interest in helping young people. The funds are given to provide twenty-five travel grants. These travel grants are offered to assist students in attending conferences, courses, co-op student exchanges or study abroad programs in these areas. Students may receive this grant only once. Apply to Student Financial Services. Deadline dates are June 1 for Fall travel, October 1 for Winter travel, and February 1 for Summer travel. Up to 80% of estimated travel costs to a maximum of $1,000.

Donor(s): The Estate of Arthur D. Latornell
Qualification(s): Students in semester 3 and above. Students must have at least a 70% average and a primary area of interest related to natural resources management, environmental science, conservation, soil science and/or rural development. Students will be asked to submit a one-page review of their travel experience, including the role the travel grant played, to the University after completion of the travel.
Amount: several up to a maximum of $1000

Massey Fund Travel Scholarships [T0417]

Travel scholarships available from the Massey Fund. Not tenable with other awards that support travel costs. Apply by letter outlining the study abroad/exchange program and travel costs to the OAC Dean's Office by April 15.

Donor(s): OAC Awards Committee
Qualification(s): OAC undergraduate students who are participating in an approved study abroad or exchange program outside Canada. Academic standing in the last two full-time semesters or equivalent will be used to determine recipients.
Amount: 1 award of $750

OAC '47 Travel Bursaries [T3505]

Provided by OAC '47 on the occasion of its 50th anniversary and with the assistance of the Ontario government's OSOTF program. Apply by letter with a completed Travel Award Application and a Need Assessment Form for Travel awards to Student Financial Services by October 1, January 1 or June 1. ACCESS AWARD

Donor(s): OAC '47
Qualification(s): OAC undergraduate students who have demonstrated financial need and who are participating in a study abroad program for academic credit at an approved institution. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).
Amount: 3 awards of $600

Canadian Friends of the Hebrew University in Jerusalem Travel Bursary [T4532]

The Canadian Friends of the Hebrew University of Jerusalem, with the assistance of the Ontario government's OSOTF program, have established these travel scholarships to assist student study at the Hebrew University of Jerusalem. Apply by letter with a completed Need Assessment Form to Student Financial Services by May 1. ACCESS AWARD. Up to three awards totalling $7500.

Donor(s): Canadian Friends of the Hebrew University in Jerusalem
Qualification(s): Undergraduate degree students in either the second or third year of study. Masters students in the first year of study, and Doctoral students in the first three years of study are eligible to be considered. Applicants must provide documentation that they have approval from the Hebrew University of Jerusalem (i) to take courses and (ii) for the period of the visit. Students must also arrange appropriate University of Guelph approvals for a "Letter of Permission" prior to applying. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).
Amount: 3 Awards with varying amounts

J. Ross Cavers International Exchange Scholarship [T0051]

OAC '53 provides this scholarship in memory of J. Ross Cavers, their honorary year member and Professor Emeritus. Apply to Student Financial Services, by April 1.

Donor(s): OAC '53
Qualification(s): Undergraduate student in OAC with travel and/or housing costs associated with a semester or more of academic study or cooperative work experience through a recognized university outside Canada. Students must have completed [7.50] credits and have satisfactory academic standing in their undergraduate course work. Preference will be given to a candidate who has exhibited qualities of leadership.
Amount: 1 award of $1,000

Richard and Sophia Hungerford Undergraduate Travel Scholarships [T4508]

The estate of Richard and Sophia Hungerford, with the assistance of the Ontario government's OSOTF program, has established an endowment to provide travel scholarships to undergraduate students with demonstrated financial need who wish to study in developing countries, or attend conferences on development. Apply to Student Financial Services with a description of the intended travel, an estimate of the travel costs and a completed Need Assessment Form at least one month prior to departure. Deadline dates are June 1 for Fall travel, October 1 for Winter travel, and February 1 for Summer travel. ACCESS AWARD.

Donor(s): The Estate of Richard Hungerford
Qualification(s): Registered undergraduate students with demonstrated financial need who have at least a 70% cumulative average in the last two semesters of full-time equivalent study are eligible. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).
Amount: Several awards of varying amounts to a maximum of $1,000

Roderick Long International Travel Grant [T0360]

Offered in memory of the late Roderick Long, O.A.C.'54. Up to eighty percent of the travel costs associated with the study outside of Canada program will be covered up to a maximum of $1,000 per student. Application by letter should be made to the Dean O.A.C. by April 15, and include a description of the study abroad program. Travel grant (or grants) totalling $1,500.

Donor(s): Mr. Roderick W. Long
Qualification(s): O.A.C. undergraduate student who is studying outside of Canada on an approved program for one or more semesters
Amount: Several awards of $1,500

University of Guelph Travel Scholarships [T0421]

The University of Guelph, through the sale of Guelph London House, has established an endowment to provide travel scholarships to undergraduate and graduate students who wish to study outside of Canada but need financial support to do so. A total of $35,000 is available in the fund. Apply to Student Financial Services with a completed Travel Grant Application and Financial Need Assessment Form by October 1 for Winter travel, February 1 for Spring travel and June 1 for Fall travel.

Donor(s): University of Guelph
Qualification(s): Registered undergraduate and graduate students that have completed 5.0 credits with demonstrated financial need who have a minimum 70% cumulative average in the last two semesters of full-time equivalent study are eligible to apply. The value of the award will depend on the assessed financial need. The scholarship can cover additional costs of travelling outside of Canada including: airfare, administrative costs, and differential costs of accommodation.
Amount: Several up to $1,000
Bachelor of Science

Please refer to the General Statement on Awards for:

• Award Eligibility
• ACCESS Awards Eligibility
• Ontario Student Opportunity Trust Fund (OSOTF) Program
• How Awards are Paid

The University reserves the right to amend awards subject to the availability of funds.

Entrance Scholarships

Amos & William Lowe Memorial Scholarship [E0158]
Endowed by the late William B. Lowe of Fort Francis, Ontario. Preference will be given first to eligible students from the district of Rainy River, then from the district of Kenora or Thunder Bay, and finally from the remaining districts of Northern Ontario. Application not required. Two awards of $1,250 paid in two installments of $625.

Donor(s): William B. Lowe and Amos Edgar Lowe
Qualification(s): Student entering any of the undergraduate degree programs of the Ontario Agricultural College.
Amount: 2 awards of $1,250

Angelo and Frank Agro Undergraduate Scholarship [E0520]
Provided by the Agro Scholarship Fund. Apply by April 1 to Student Financial Services, including a covering letter describing your activities within 4H (details of 4H club membership, creativity in support of 4H activities, participation in activities and events, volunteer leadership roles, etc.) and a letter of reference from a 4H club official attesting to your involvement. $4,000 ($1,000 annually for four years).

Donor(s): The Frank Agro Estate
Qualification(s): Full-time students entering semester 1 who have attained a minimum 80% admission average in their graduating year from high school. The scholarship will be awarded to the eligible student demonstrating the greatest past or continuing involvement with 4H activities. Recipients must maintain full-time studies and at least a 70% program average each year for continuation of the award.
Amount: 1 award of $4,000

Board of Governors’ Scholarships [E0317]
The scholarship will be paid in eight equal installments with the first and second payments payable shortly after registration in semesters 1 and 2. The 3rd to 8th payments are contingent upon obtaining a minimum average of 80% over the previous two semesters of full-time study. Students who fail to qualify for a payment may re-qualify by subsequently obtaining an 80% or better average over the previous two semesters of full-time study. Application not required. Twenty-five awards of $8,000 ($2,000 annually for 4 years).

Donor(s): Board of Governors
Qualification(s): Outstanding students entering semester 1
Amount: 25 awards of $8,000

December 6th Memorial Scholarship [E0005]
This scholarship, established by the Faculty Association, is awarded in memory of the fourteen women murdered in December 1989 at Ecole Polytechnique and is intended to attract women to a profession that is largely comprised of men. Application not required. $2,250 ($750 in each of semesters 1, 3 and 5).

Donor(s): University of Guelph Faculty Association
Qualification(s): Female student who is a Canadian Citizen or Permanent resident of Canada enrolled in the College of Physical and Engineering Science. The recipient will be selected on the basis of academic performance. For continued eligibility beyond semester 1, the student must maintain a minimum of 70% cumulative average. Demonstrated financial need may also be considered.
Amount: 1 award of $2,250

Earl B. MacNaughton Entrance Scholarship [E0172]
Established by friends, faculty, staff, alumni and students of the University to honour Earl B. MacNaughton, former head of the Department of Physics and founding Dean of the College of Physical Science. Application not required.

Donor(s): Earl B. MacNaughton
Qualification(s): Students with high academic standing, entering an honours program in the College of Physical and Engineering Science. Emphasis will be given to academic achievement in high school science and mathematics.
Amount: 4 awards of $1,000

Elite Swine Entrance Scholarship [E0532]
This award is provided by Elite Swine Inc. to assist students entering an OAC undergraduate Program. High schools will forward nominations to the OAC Awards Committee by September 15.

Donor(s): Elite Swine Inc.
Qualification(s): High school graduates who have applied to OAC undergraduate programs, based on admission average, contributions to their schools and communities and on their potential to become leaders in society. Preference will be given to students with a strong interest in animal science, particularly swine production.
Amount: 5 awards of $1,000

Frederick Hutt Scholarships [E0319]
Dr. Frederick B. Hutt, O.A.C. ’23 and Professor Emeritus of Animal Genetics at Cornell University offers this scholarship. Application not required.

Donor(s): Dr. Frederick B. Hutt
Qualification(s): Students from Wellington County entering a College of Biological Science program with a minimum admission average of 85%.
Amount: 2 awards of $700

Gordon McNally Memorial Award [E0203]
In memory of Gordon McNally, Professor of Zoology in the Ontario Agricultural College (1934-1971) and College of Biological Science (1971-1979), who had a great interest in extracurricular activities. Applications by students or recommendations by high school teachers should be made by letter to the Associate Registrar, Student Financial Services by April 1.

Donor(s): Jean and Peter Gower
Qualification(s): Students entering any undergraduate program in the College of Biological Sciences. The recipient will be selected on the basis of academic performance and demonstration of outstanding contributions to extracurricular activities and/or community services.
Amount: 1 award of $500

Gordon W. Innes Scholarship [E0140]
Established by the Gordon W. "Sparky" Innes Scholarship Fund Committee of the Woodstock Agricultural Society. Application not required.

Donor(s): Gordon W. "Sparky" Innes Scholarship Fund Committee of the Woodstock Agricultural Society
Qualification(s): Student from Oxford County with the highest admission average.
Amount: 1 award of $1,400

Honours Chemistry [E0130]
Application not required.

Donor(s): Faculty of the Department of Chemistry and their scholarship fund
Qualification(s): Student entering the first semester level of the B.SC. program. The student must declare the intention to pursue an honours program in Chemistry. The award will be made in 2 installments of $250 each in the student’s first 2 semesters provided an average of 80% is obtained in the 1st semester.
Amount: 1 award of $500

Honours Mathematics or Statistics Scholarship [E0131]
Application not required.

Donor(s): Faculty of the Department of Mathematics and Statistics, via the CPES Scholarship Fund
Qualification(s): Student entering the first semester level of the B.SC. or B.A. program who declares the intention to pursue an honours program in Mathematics or Statistics. The scholarship will be made in 2 installments of $250 in each of the student’s first 2 semesters with the second installment to be conditional upon the student obtaining an average of 80% in the 1st semester.
Amount: 1 award of $500

Honours Physics Scholarship [E0132]
Offered by the Department of Physics, these awards will be made based on the student’s admission average. A minimum 85% admission average is required to be considered. Application not required.

Donor(s): Department of Physics
Qualification(s): Students entering the first semester level of the B.SC. program or the B.SC. (Tech.) program with high academic standing and a declared intention of pursuing a major in Physics, Physics and Technology, Biophysics, Chemical Physics, or Theoretical Physics, or a Co-op stream of these programs.
Amount: Several awards of $4,000
### International Student Entrance Scholarships [E0408]

In support of the University's strategic direction of internationalism, entrance scholarships are available each Fall semester to the top international students entering their first semester of an undergraduate degree program at the University of Guelph. Applicants must submit all relevant documentation for admission consideration by March 1 to be considered for a scholarship. These scholarships are awarded on a competitive basis. Application not required.  

**Donor(s):** University of Guelph  
**Qualification(s):** Students on a “student visa” entering an undergraduate degree program at the University of Guelph with a record of high academic achievement and extracurricular involvement, and studying full-time. This award is offered for the first year of study.  
**Amount:** Several awards ranging in value from $500 - $6,000

### J.D. MacLachlan Scholarship [E0170]

Provided by the family of J.D. MacLachlan. Application not required.  

**Donor(s):** The J.D. MacLachlan Trust  
**Qualification(s):** Student entering the University with the highest admission average.  
**Amount:** 1 award of $1,500

### Lincoln Alexander Chancellor's Scholarship [E0493]

These scholarships, named to honour Lincoln Alexander, Chancellor of the University of Guelph and former Lieutenant Governor of Ontario, on his 80th birthday, are awarded to academically distinguished entering students who are Aboriginal, persons with a disability or members of a racial minority, and who have made significant contributions to their schools and communities and demonstrated the potential to become leaders in society. These scholarships are intended to enhance student diversity and are amongst the most prestigious entrance awards at the University of Guelph. Nominations are made by high school principals and are to be sent to the Associate Registrar, Student Financial Services, by March 1. Two awards of $20,000 ($5,000 annually for 4 years).  

**Donor(s):** Many Donors  
**Qualification(s):** Entering students of academic distinction who are Aboriginal, persons with a disability or members of a racial minority, and who have made significant contributions to their schools and communities and demonstrated the potential to become leaders in society. Financial need may be taken into consideration.  
**Amount:** 2 awards of $20,000

### McArthur-Humphries Scholarship [E0183]

Provided by the Wilhelmina McArthur Humphries Trust Fund. This scholarship is awarded to students entering any undergraduate degree program and are based on the highest admission average. Application not required.  

**Donor(s):** Wilhelmina McArthur-Humphries Trust Fund  
**Qualification(s):** Students entering semester 1 with a minimum 75% admission average. Preference will be given to those students from Lanark and Wellington Counties. An equal number of awards are available to students from each county. In the case of insufficient eligible applicants from one county, the awards will be given to eligible applicants from the other county.  
**Amount:** 12 awards of $1,000

### P.A.J. Clarke Family Scholarship [E0381]

Paul and Aileen Clarke and their family established the endowment for this entrance scholarship in honour of Paul’s father, the late Jack Clarke, a Blenheim area farmer. Apply by letter outlining extracurricular and/or community activities, ensuring that you have completed a Need Assessment Form for Entrance Awards, and submit to Student Financial Services by April 1. Students who have applied to the University for admission will receive information on completing a Need Assessment Form for Entrance Awards from the University early in the calendar year. This award is not tenable with the Financial Services by April 1. Students who have applied to the University for admission have completed a Need Assessment Form for Entrance Awards, and submit to Student Financial Services by April 1. Two awards of $1,200 ($3,000 annually for 4 years).  

**Donor(s):** Paul and Aileen Clarke  
**Qualification(s):** Students with a minimum 80% average with a record of leadership and community participation are eligible. Preference will be given to candidates from Blenheim district or Kent County and who were raised, or have worked, on a farm. Students may be contacted to provide special need circumstances if there is a short list of equal candidates.  
**Amount:** 1 award of $12,000

### President’s Scholarship [E0238]

The most prestigious entrance awards at the University of Guelph. Twelve scholarships of $20,000 ($5,000 annually), named to honour their donors or distinguished members of the University, are awarded to entering students of academic distinction who have made significant contributions to their schools and communities and demonstrated the potential to become leaders in society. Nomination packages are sent to Canadian high schools each fall. This award is tenable with the University of Guelph Entrance Scholarship, the University of Guelph Accessibility Scholarship or the Registrar's Entrance Scholarship, but no other Entrance Scholarships. High school principals must submit their nominations using the application material sent to the school’s Guidance Office in the fall, to the Associate Registrar, Student Financial Services, by March 1.  

**Donor(s):**  
A number of President’s Scholarships have been named in honour of the following people and/or donors:  
- **Dick Brown**  
  - Two of the scholarships, endowed by Dr. Patrick Lett are awarded to winners whose leadership qualities best reflect those demonstrated by Dick Brown in University Athletics from 1968 to 1988.  
- **Cecil H. Franklin and Ingrid Franklin**  
  - In honour of Cecil Franklin, former Chair of the Board of Governors and Honorary Fellow of the University, the University of Guelph has named one of these twelve prestigious entrance awards to recognize his financial contribution through his estate to the President’s Entrance Scholarship program.  
- **Jack R. Longstaffe**  
  - The University of Guelph has named one of these twelve prestigious entrance awards in memory of Jack R. Longstaffe to recognize his financial contribution through his estate to the President's Entrance Scholarship program.  
- **Burton C. Matthews**  
  - The University of Guelph has named one of these twelve prestigious entrance awards in honour of Burton C. Matthews to recognize his insight and leadership in establishing the President's Entrance Scholarship program.  
- **Kathleen and Frederick Metcalf**  
  - Mr. and Mrs. F.T. Metcalf of Guelph have endowed this award. After a distinguished career in cable TV, broadcasting and publishing, the late Mr. Metcalf retired as President of Maclean Hunter Ltd. and Chairman of the Board of Maclean Hunter Cable Ltd. He was Honorary Chairman of Maclean Hunter Cable Ltd. and a member of the University of Guelph Heritage Board (1996).  
- **Roll-land Farms Limited**  
  - Two of the scholarships are endowed by the four shareholders of Roll-land Farms Limited of Blenheim, Ontario, Hank, Peter, Arthur and Eric Vander Pol and their families. The Vander Pol families are generous supporters of a number of University projects and programs.  
- **Lillian Stewart Usher**  
  - The University of Guelph has named one of these twelve prestigious entrance awards in honour of Lillian Stewart Usher a friend of the University to recognize her financial contribution through her estate to the President’s Entrance Scholarship program.  

**Qualification(s):** Entering students of academic distinction who have made significant contributions to their schools and communities and demonstrated the potential to become leaders in society.  
**Amount:** 12 awards of $20,000

### Robert Orr Lawson Microbiology Entrance Scholarship [E0489]

Provided through a generous bequest from the estate of Robert Orr Lawson, with matching support from the Department of Molecular and Cellular Biology, this scholarship is intended to encourage study and research related microbiology of foods. The scholarship will be paid over four years in installments of $1,000. The second to fourth payments are contingent upon obtaining a minimum average of 77% over the previous two semesters of full-time study in the major. Students who fail to qualify for a payment may re-qualify for the subsequent payments by obtaining a 77% or better average in the succeeding two academic semesters of full-time study. Application not required.  

**Donor(s):** Department of Molecular and Cellular Biology and the estate of the late Robert Orr Lawson  
**Qualification(s):** Student entering the Microbiology major in the B.SC. program with the highest admission average, providing it is a minimum of 80%. This scholarship may be held with any other awards except the Microbiology Entrance Bursary, or any of the other Robert Orr Lawson Microbiology Scholarships.  
**Amount:** 1 award of $4,000, paid in four installments of $1,000
Samuel Acker Memorial Scholarship [E0001]

This scholarship is not tenable with other Senate awards. Application not required.

**Donor(s):** The trustees of the estate of the late Samuel Acker (Mr. David Acker and Mr. Abraham Acker)

**Qualification(s):** Student entering the first semester level of the B.SC. program in the College of Physical and Engineering Science. Preference may be given to students whose home residence is in either Wellington, Waterloo or Perth County.

**Amount:** 1 award of $400

The Jack and Lillian MacDonald Scholarship [E0379]

Family, friends, and colleagues of Lillian MacDonald and Dr. Jack MacDonald, Vice-President, Academic, of the University of Guelph from 1986 to 1995, have established a scholarship that recognizes their commitment to increasing the accessibility of post-secondary education to aboriginal persons. Apply by letter to Student Financial Services by April 1.

**Donor(s):** Jack and Lillian MacDonald

**Qualification(s):** In the first instance, the award will be given to an entering student coming from the Grand River Polytechnical Institute (GRPI) and who has received the highest cumulative average in the Native University Access Program. If there is no entering student in any one year, the scholarship will be awarded to the in-course student who is a graduate of the GRPI who has the highest cumulative average at the University.

**Amount:** 1 award of $900

University of Guelph Entrance Scholarships [E0291]

This scholarship is based on the final admission average and program of study that is calculated by Admission Services, based on 12U, 12M, or OAC courses. These will be awarded based on the final high school grades that are submitted to the University in July. A minimum 85% final admission average guarantees an award. The scholarship will be applied directly to the student’s financial account in two equal payments in the Fall and Winter Semesters. You can view the scholarship amounts at: http://www.uoguelph.ca/studfin/fall_current_merit.shtml. Application not required.

**Donor(s):** University of Guelph

**Qualification(s):** Students entering their first year of post-secondary studies for the first time and have a minimum 85% final admission average.

**Amount:** Several awards ranging in value from $1,500 to $3,000

University of Guelph Faculty Association Scholarship [E0292]

Award is payable at $750 per annum in the student’s 1st, 3rd, and 5th semester levels, provided a cumulative average of at least 70% is maintained. To receive the final payment, the recipient would normally be entering the 5th semester level within a period of 3 calendar years from the date of admission. Application not required.

**Donor(s):** University of Guelph Faculty Association

**Qualification(s):** Student entering an undergraduate degree program at the University of Guelph with the highest admission average who has been a resident of Guelph, Lambton County, and their absence, from Lambton County, and their absence, from Ontario.

**Amount:** 1 award of $2,250

W. Penri Morris Memorial Scholarship [E0430]

Established by the family in memory of Penri Morris, who was killed World War II action in 1944 at the age of 21. Penri grew up on the family fruit farm near Forest, Ontario. After graduating from high school, he joined the Royal Canadian Air Force and was attached to the Royal Air Force Bomber Command as a navigator at the time of this death. Awarded to the student with the highest cumulative academic performance above 75% in all courses of the last year in high school study (full-time or equivalent study). Application not required.

**Donor(s):** Prof. Rosalina Morris

**Qualification(s):** Students entering first year of any undergraduate program from North Lambton Secondary School in Forest, Ontario, in their absence, from Lambton County, and their absence, from Ontario.

**Amount:** 1 award of $1,000

W.C. Blackwood Memorial Entrance Scholarship in Physics [E0029]

Application not required.

**Donor(s):** Mr. B.A. Ward

**Qualification(s):** Student entering the first semester level of the B.SC. program, who declares the intention to pursue an honours program in Physics.

**Amount:** 1 award of $550

**Entrance Scholarships with Financial Need**

**Bill Klopp Memorial Award [E0150]**

Priority will be given to a student from Kitchener-Waterloo Collegiate and Vocational Institute. Apply by letter to Student Financial Services, outlining extracurricular activities and by completing the online Entrance Financial Need Assessment Application (N.A.F) by May 1. Students should complete the Entrance Financial Need Assessment application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student).

**Donor(s):** Ross and Mary Lou Klopp

**Qualification(s):** Presented to a student entering semester 1 from the cities of Kitchener or Waterloo who has demonstrated involvement in extracurricular activities who has shown satisfactory academic performance and who has financial need.

**Amount:** 1 award of $500

**Gary Knechtel Memorial Scholarship [E4500]**

Established by the Toronto Section of the Canadian Institute of Food Science and Technology, with the assistance of the Ontario government's OSOTF program, in memory of Gary Knechtel (1943 - 1988) a revered and outstanding leader in the food industry, and a long time member of the Canadian Institute of Food Science and Technology. Academic standing in high school O.A.C. subjects and an interest in Food Science will be used to determine the recipient. Subsequent installments are dependent on continued demonstration of financial need and satisfactory progress in Food Science. Gary Knechtel Memorial Scholarship applications will be mailed to all Food Science major applicants by the Department of Food Science. The application along with a completed Financial Need Assessment Form for Entrance Awards are due back to Student Financial Services by April 1. Students are encouraged to complete the online Entrance Financial Need Assessment application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student). ACCESS AWARD. One award of $10,000 paid in installments of $2,500 in semesters 1, 3, 5, and 7.

**Donor(s):** Toronto Section, Canadian Institute of Food Science and Technology

**Qualification(s):** Students with demonstrated financial need entering the Food Science major in the B.SC. program. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 1 award of $10,000

**Kenneth O. Hammill-Blount Canada Scholarship [E4356]**

Established in honour of Kenneth Osborne Hammill, a long time friend of the University and retired plant manager of Blount Canada, with the assistance of the Ontario government's OSOTF program. The winner is chosen from the list of alternates for the President's Scholarships. President's Scholarship nominees should complete the online Entrance Financial Need Assessment application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student). Deadline to submit the application is May 1. ACCESS AWARD.

**Donor(s):** The Blount Foundation, Inc.

**Qualification(s):** Students from the Province of Ontario, with demonstrated financial need, entering one of the following programs on an annual rotation: B.A. in 98/99, then B.A.Sc., B.Comm., B.SC., B.SC.(Agr.), B.SC.(Eng.), B.SC.(Env.). Recipients must maintain a B+ average or higher, continue to demonstrate financial need and be full-time students in order to qualify for subsequent installments. During the summer after the 3rd year, the scholar will propose, to Student Financial Services, an enrichment experiential undertaking related to the student's field of study; the grant application should include a detailed budget. A grant of up to $1,200 is available to support the undertaking, subject to continuing financial need and approval of the proposal by Student Financial Services. Upon completion, the student will write a report of the experience to Student Financial Services. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 1 award of $9,600, payable in 8 payments of $1,200.
Microbiology Entrance Scholarship [E3545]
Provided through a generous bequest from the estate of Robert Orr Lawson and the Department of Molecular and Cellular Biology, with the assistance of the Ontario government's OSOTF program. The bursary will be paid over four years in installments of $1,000. The second to fourth payments are contingent upon obtaining a minimum average of 77%, having completed 5, 10 and 15 credits of study in the major and demonstrating continued financial need. Students should complete the online Entrance Financial Need Assessment application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student). Deadline to submit the application is May 1. ACCESS AWARD.

Donor(s): Department of Molecular and Cellular Biology and the estate of Robert Orr Lawson
Qualification(s): Entering student in the Microbiology major in the B.SC. program who has a minimum 80% average and who has demonstrated greatest financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards). This bursary may be held with any other award, except any of the Robert Orr Lawson Scholarships.

Amount: 1 award of $4,000, payable in 4 annual payments of $1,000

Registrar's Entrance Scholarships [E3084]
Established by the University of Guelph to support entering undergraduate students with identified financial need. Students should complete the online Entrance Financial Need Assessment application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student). Deadline to submit the application is May 1. Scholarship offers will be made in May. This award is tenable with the University of Guelph Accessibility Scholarship, but can be held with all other Entrance Awards.

Donor(s): University of Guelph
Qualification(s): Students entering a full-time undergraduate program on the basis of financial need and academic merit.

Amount: 500 awards of $2,000

Rol-Land Farms Scholarships [E4519]
Established by Rol-Land Farms, with the assistance of the Ontario government's OSOTF program, to attract entering students who might otherwise not be able to attend university for financial reasons. Students should complete the online Financial Need Assessment application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student). Deadline to submit the application is May 1. ACCESS AWARD

Donor(s): Rol-Land Farms
Qualification(s): Outstanding entering undergraduate degree students with demonstrated financial need and a minimum 80% cumulative average. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

Amount: 13 awards of $2,000

Sleeman Brewing Scholarships [E4267]
Established by the Sleeman Brewing and Malting Company, with the assistance of the Ontario government's OSOTF program. One award alternates between a B.SC. student in the College of Biological Science and the College of Physical and Engineering Science (beginning with C.P.E.S. in 2000/2001); one award is available to a B.COMM. student, in a major offered by the School of Hospitality and Tourism Management. Selection is by the University Bursary Committee. Students should complete the online Entrance Financial Need Assessment application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student). Deadline to submit the application is May 1. ACCESS AWARD

Donor(s): The Sleeman Brewing & Malting Company
Qualification(s): Full-time entering students registered in the B.SC. program in the College of Biological Science or the College of Physical and Engineering Science respectively and B.COMM. students, in a major offered by the School of Hospitality and Tourism Management students with a minimum average of 80% in the last year of secondary school and demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

Amount: 2 awards of $1,000

University of Guelph Accessibility Scholarship [E3038]
Established by the University of Guelph to support entering undergraduate students with identified financial need. Students should complete the online Entrance Financial Need Assessment application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student). Deadline to submit the application is May 1. Scholarship offers will be made in May. This award is not tenable with the Registrar's Entrance Scholarship, but can be held with all other Entrance Awards. Approximately 150 awards of $9,000 ($3,000 in year one and $2,000 in years 2, 3 and 4).

Donor(s): University of Guelph
Qualification(s): Students entering a full-time undergraduate program on the basis of financial need and academic excellence.

Amount: 150 awards of $9,000

Entrance Awards with Financial Need

Fred Hindle Bursary [E3500]
Awarded in memory of Fred Hindle, O.A.C. '38, a long-time generous supporter of his Alma Mater, who at the time of his death, wanted future students to have the same opportunity for an education as he had received. This bursary is awarded with the assistance of the Ontario government's OSOTF program. This bursary is dependent on continued demonstration of financial need and successful completion of study to advance into the next year. Students should complete the online Entrance Financial Need Assessment application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student). Deadline to submit the application is May 1. ACCESS AWARD. One award of $6,000 ($1,500 annually for 4 years).

Donor(s): W. Roy Hindle and family
Qualification(s): An entering O.A.C. degree student who has demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statement on Awards).

Amount: 1 award of $6,000

Harvey Graham Bursary [E3030]
Provided by Harvey Graham (OAC ’39). Students should complete the online Entrance Financial Need Assessment application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student). Deadline to submit the application is May 1.

Donor(s): Harvey Graham, OAC ’39
Qualification(s): Student who has demonstrated financial need with preference given to a student who comes from a working farm. Students graduating from Lindsay C. V. L. Fenelon Falls Secondary School, or L. E. Weldon Secondary School will be considered. Each application must be accompanied by a reference letter from the Reeve of the student's home township.

Amount: 1 award of $1,700

International Student Entrance Bursaries [E3043]
In support of the University's strategic direction of internationalism, entrance bursaries are available each fall to assist some of our international students entering an undergraduate degree program at the University of Guelph. Students who have applied to the University of Guelph will receive an application form.

Donor(s): University of Guelph
Qualification(s): Students on a student visa entering an undergraduate degree program at the University of Guelph with demonstrated financial need.

Amount: Several awards of $1,000, Several awards of $3,000

Justine Eves Learning Disability Accessibility Bursaries [E3057]
In memory of Justine Eves who was dyslectic and died tragically in an automobile accident in 1995, the Justine Eves Foundation together with the University of Guelph provides these awards to entering Undergraduate students who have a learning disability and who has demonstrated financial need. Students should complete the online Entrance Financial Need Assessment application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student). Deadline to submit the application is May 1.

Donor(s): Justine Eves Foundation
Qualification(s): Any entering undergraduate student that has financial need and a documented learning disability as defined by the Ontario Psychological Association.

Amount: 4 awards of $3,000
Robert Arthur Stewart Bursaries [E3272]

Established in memory of Mrs. Elsa H. Stewart of Pakenham, Ontario. Mr. Stewart graduated from the Ontario Agricultural College in 1933 and Mrs. Stewart from Macdonald Institute in 1932. Applicants for these bursaries should have a good academic record and an active interest in community affairs. A recommendation from the County agricultural representative or the secondary school principal is required and should be sent to Student Financial Services by April 1. Students should complete the online Entrance Financial Need Assessment application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student).

**Donor(s):** The Estate of Mrs. H. Stewart  
**Qualification(s):** Students from the Ontario Counties of Lanark and Renfrew, and the Regional Municipality of Ottawa-Carleton, entering the 1st semester of a degree program at the University of Guelph.

**Amount:** 12 awards of $500

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**In-course Scholarships**

Alex Peepre Memorial Scholarship [I0232]

A scholarship established by friends of the late Professor Alex Peepre. Application not required. One award of $350 and a framed certificate.

**Donor(s):** Friends of the late Professor Alex Peepre  
**Qualification(s):** Student entering semesters 7 or 8 in the Winter in an undergraduate program of study in Human Kinetics or Bio-medical Science majors who has high academic standing and who displays marked qualities of leadership in the Department of Human Biology and Nutritional Sciences. In assessing student leadership, activity in student organizations, athletics, teaching assistantships, etc. will be considered.

**Amount:** 1 award of $500, 1 Framed certificate

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Analytical Biochemistry Award [I0281]

Donated by a faculty member in the Department of Molecular and Cellular Biology and supported by the Alma Mater Fund. Awarded in the Winter semester. Application not required.

**Donor(s):** Dr. F. J. Sharam, Department of Biochemistry  
**Qualification(s):** Students with the highest grades in BIOC*3570 Analytical Biochemistry. One award will be made in each semester that the course is offered. Eligible students must be continuing in an honours major program administered by the Department of Molecular and Cellular Biology.

**Amount:** 1 award of $200

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Analytical Toxicology Award [I0465]

Application not required.

**Donor(s):** Donor wishes anonymity  
**Qualification(s):** Students registered in a toxicology major who achieves the highest grade in the course TOX*3300, Analytical Toxicology. Prize will be awarded at the Annual Toxicology Symposium.

**Amount:** 1 award of $200

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Bill Taylor Memorial Scholarship [I0280]

Applications to include a supporting letter from a coach or intramural supervisor. Apply to Student Financial Services by April 1.

**Donor(s):** AMF Canada Ltd.  
**Qualification(s):** Full-time student that has completed a minimum of 7.5 credits, but no more than 17.5 credits in the Winter term who has a cumulative 80% average or who is in the top 10% of his/her program. The recipient must have demonstrated responsibility and leadership qualities through participation in intramural or intercollegiate athletics.

**Amount:** 1 award of $900

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Blackburn Scholarship [I0404]

In commemoration of the 125th Anniversary of the Ontario Agricultural College. Dr. D.J. Blackburn, a retired faculty member in Rural Extension Studies and former Director of the Associate Diploma Program has established this scholarship. Apply by letter, citing athletic contributions, to the OAC Awards Committee by April 1.

**Donor(s):** D.J. Blackburn  
**Qualification(s):** OAC degree or diploma student who has participated in intercollegiate athletics and maintained a minimum cumulative average of 70% while registered at Guelph. Athletic excellence and leadership will be used to determine the recipient.

**Amount:** 1 award of $1,000

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Bob McCann Memorial Scholarship [I0314]

This award is presented in the Winter semester. Application not required.

**Donor(s):** Mr. & Mrs. Edward H. McCann  
**Qualification(s):** Student commencing semester 8 in honours Wild Life Biology major. The scholarship will be awarded to the student who has completed the 7th semester level with the highest cumulative average in core courses in the Wild Life major.

**Amount:** 1 award of $700

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Brian L. Walker Memorial Scholarship [I0301]

This scholarship is not tenable with the Dr. Hugh D. Branion Memorial Scholarship. Application not required.

**Donor(s):** Brian Walker Memorial Scholarship Committee  
**Qualification(s):** Student registered in semester level 8 in B.SC. Nutrition and Nutraceutical Sciences major in the Winter semester. The scholarship will be awarded on recommendation of the Department of Human Biology and Nutritional Sciences based on academic achievement in 6 Nutritional Sciences courses.

**Amount:** 1 award of $500

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Bruce Sells Medal of Academic Excellence [C0402]

In honour of Bruce Sells, the Dean of the College of Biological Science, 1983-1995, a silver medal is presented. Application not required.

**Donor(s):** Dr. Bruce Sells and friends  
**Qualification(s):** Presented to the student who has graduated at the completion of the Winter semester, or during the previous Fall or Spring semester, with the highest cumulative average in the Honours Biological Sciences, B.SC. degree program.

**Amount:** 1 Silver medal

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Bruce W. Minshall Memorial Scholarship [I0450]

Provided by Dr. W.H. Minshall (O.A.C.'33) in memory of his son Bruce, a graduate of O.A.C. in 1970. Apply to Student Financial Services by April 1.

**Donor(s):** OAC Alumni Foundation on behalf of Dr. W.H. Minshall  
**Qualification(s):** O.A.C. students in the B.SC.(Agr.), B.SC.(Env.) or B.SC. degree programs who have completed semester level 6 are eligible. Interest in crop protection and achievement in courses such as CROP*4240, ENVB*3030, ENVB*3210, ENVB*4100, and ENVB*4240 will be considered. Awarded to the student with an interest in crop protection and showing the greatest improvement in academic standing since entering the program.

**Amount:** 1 award of $1,000

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Bryant Family Research Scholarship [I0537]

This scholarship was established through the generosity of W. Keith Bryant, OAC '57, in honour of the contributions to the University made by his grandfather, Robert Bryant, his father, Leonard R. Bryant and his uncle, H. William Bryant. Robert Bryant was a Stockkeeper in the Chemistry Department from the 1920's to the 1940's. Leonard R. Bryant, Professor of Chemistry and Dairy Chemist, served the University from 1927 to 1958. H. William Bryant, OAC '31, was employed by the Apiculture Department from 1931 to 1934. All applicants must submit copies of their research proposals and one page abstracts to either the Chair of the Department of Integrative Biology or September or January of each year. The successful candidate will be selected by the College of Biological Sciences Awards Committee on the recommendation of the Department of Integrative Biology.

**Donor(s):** Dr. W. Keith Bryant  
**Qualification(s):** Any undergraduate student enrolled in undergraduate research project courses administered by the Department of Integrative Biology. The student will be judged to have the best proposal for an undergraduate research project and meet a minimum standard of excellence.

**Amount:** 2 awards of $300

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C.G.A. Ontario Award for Excellence [C0025]

Apply by April 1 to Student Financial Services indicating intent to pursue the C.G.A. program of professional studies. One award of $150 plus a credit equalling one year's tuition and course fees towards the C.G.A. program (approximate value: $2,000).

**Donor(s):** Certified General Accountants Association of Ontario  
**Qualification(s):** Graduating student who has a minimum cumulative average of 77% in Financial Accounting AGEC*2220; Management Accounting AGEC*2230; and Intermediate Accounting AGEC*3330.

**Amount:** 1 award of $150, plus 1 year tuition and course fee towards the C.G.A. program. (approximate value of $2,000)
IX. Scholarships and Other Awards, Bachelor of Science

**C.M. and D.J. Switzer Scholarships [I0276]**

Apply by April 1 to Student Financial Services.

**Donor(s):** C.M. and D.J. Switzer

**Qualification(s):** One to a student who has completed semester 2 of the Diploma in Agriculture program and one to a student who has completed 4 of a degree program in OAC. Recipients will have a minimum of 70% standing and have demonstrated outstanding leadership ability in OAC student organizations, class executives and College Royal.

**Amount:** 2 awards of $2,000

**Canadian Agri-Marketing Association (Ontario) Scholarship [I0294]**

Provided by the Canadian Association of Agri-Marketing Association (Ontario). Apply to the OAC awards committee by April 1 with a summary of participation in the Ag Ec & Biz Society and in agri-marketing initiatives as well as a letter of recommendation from a faculty member.

**Donor(s):** Canadian Agri-Marketing Association (Ontario)

**Qualification(s):** Student who has completed a minimum of 10.0 credits with a minimum cumulative average of 70% who are members of OAC and the Ag Ec & Biz Society. Selection will be based on a combination of academic achievement and a demonstrated interest in agri-marketing.

**Amount:** 1 award of $1,500

**Canadian Federation of University Women/Guelph Scholarship [I0294]**

The Guelph Chapter of the Canadian Federation of University Women provides this annual scholarship. Application not required.

**Donor(s):** The Guelph Chapter of the Canadian Federation of University Women

**Qualification(s):** Female student registered in Year 3 in the Fall semester in either B.Sc.(Eng.), B.A. (College of Physical and Engineering Science) or B.Sc. (College of Physical and Engineering Science) who has the highest cumulative average. Preference will be given to a student who has graduated from a secondary school in Wellington County.

**Amount:** 1 award of $2,000

**Chemical Institute of Canada Prize [I0056]**

Awards in the Winter semester. Application not required.

**Donor(s):** Chemical Institute of Canada

**Qualification(s):** Student enrolled in an honors major program administered by the Department of Chemistry who has completed semester 6 in the previous calendar year with the highest cumulative average over 6 semesters in courses in Chemistry.

**Amount:** 1 Silver medal

**Chemistry Club Prize for Chemistry Promotion [I0495]**

Donated by the Chemistry Club, together with the Dean of CPES. Applicants should submit a one-page type-written summary outlining their effort to promote the disciplines of chemistry within the University, or the community to the Executive of the Chemistry Club by February 1st.

**Donor(s):** The Chemistry Club

**Qualification(s):** Student at any semester level enrolled in a degree program administered by the Department of Chemistry, who has made a significant contribution to promotion of chemistry.

**Amount:** 1 award of $200

**City of Guelph 175th Anniversary Awards [I0515]**

Provided by the Guelph Community Foundation, in celebration of the 175th anniversary of the City of Guelph in 2002, as an investment for future generations. Apply to Student Financial Services, by October 7 of the second year of study, with a letter describing Guelph community and University community volunteer activities and extracurricular activities, a completed Need Assessment Form, and two reference letters not to exceed two pages in length from individuals familiar with the volunteer and/or community service contributions. Award may be held only once.

**Donor(s):** The Guelph Community Foundation

**Qualification(s):** Undergraduate students with more than 5.0 credits and less than 10.5 credits of full-time study must have maintained a cumulative 70% average in all courses completed (5.0 credits or more) in the first year study and have demonstrated leadership and financial need. Applicants must be graduates of a City of Guelph high school and be Canadian citizens or permanent residents at the time of application. Selection will include equally weighted consideration of academic performance, leadership both on and off campus and financial need.

**Amount:** 1 award of $1,000

**Class of ’51 OAC Leadership Awards [C0063]**

Established by Year ’51 OAC, on the occasion of its 45th anniversary. At the discretion of the OAC Awards Committee students may be selected before graduation. Application not required.

**Donor(s):** Year ’51 OAC

**Qualification(s):** Students graduating from the degree program in a major in an OAC department who have a 70% standing in the final year of study and who have demonstrated leadership in the College or University extracurricular activities.

**Amount:** 4 awards of $1,000

**CBS Dean’s Scholarship [I0473]**

Established by Dr. Robert Sheath, Dean of the College of Biological Science and William Rowe, Senior Manager, Development, College of Biological Science to recognize outstanding achievement. Application not required. Awarded in the Winter semester.

**Donor(s):** Dr. Robert Sheath

**Qualification(s):** C.B.S. student registered in the Bachelor of Science program who has completed at least 15 credits with the highest cumulative average prior to the fall semester.

**Amount:** 1 award of $1,500

**CFRU Volunteer Award [I0215]**

Apply to the CF RU Board of Governors by April 30.

**Donor(s):** Station Manager, CF RU

**Qualification(s):** Applicants must be registered or graduating from the University of Guelph and have volunteered at CF RU for at least one year. The recipients will be selected on the basis of academic performance and volunteer work at CF RU.

**Amount:** 2 awards of $250

**Chair’s Prize in Human Biology and Nutritional Sciences [C0555]**

Established by the Department of Human Biology and Nutritional Sciences. These awards are presented to the student with the highest cumulative average in each of Human Kinetics, Bio-Medical Sciences, and Nutrition and Nutraceutical Science. Application not required.

**Donor(s):** Human Biology and Nutritional Science Department

**Qualification(s):** Full-time students who have completed the B.SC. Degree program in Human Kinetics, Bio-Medical Science, and Nutrition and Nutraceutical Science within the most recently completed academic year.

**Amount:** 3 awards of $500

**Charles McGowan Memorial Prize [C0187]**

Fund established in memory of the late Lieutenant Charles McGowan. Application not required.

**Donor(s):** Charles McGowan Memorial Fund

**Qualification(s):** Outstanding graduating student in an OAC degree program.

**Amount:** 1 award of $300

**City of Guelph 175th Anniversary Awards [I0515]**

Provided by the Guelph Community Foundation, in celebration of the 175th anniversary of the City of Guelph in 2002, as an investment for future generations. Apply to Student Financial Services, by October 7 of the second year of study, with a letter describing Guelph community and University community volunteer activities and extracurricular activities, a completed Need Assessment Form, and two reference letters not to exceed two pages in length from individuals familiar with the volunteer and/or community service contributions. Award may be held only once.

**Donor(s):** The Guelph Community Foundation

**Qualification(s):** Undergraduate students with more than 5.0 credits and less than 10.5 credits of full-time study must have maintained a cumulative 70% average in all courses completed (5.0 credits or more) in the first year study and have demonstrated leadership and financial need. Applicants must be graduates of a City of Guelph high school and be Canadian citizens or permanent residents at the time of application. Selection will include equally weighted consideration of academic performance, leadership both on and off campus and financial need.

**Amount:** 1 award of $1,000

**Chemical Institute of Canada Prize [I0056]**

Awards in the Winter semester. Application not required.

**Donor(s):** Chemical Institute of Canada

**Qualification(s):** Student enrolled in an honors major program administered by the Department of Chemistry who has completed semester 6 in the previous calendar year with the highest cumulative average over 6 semesters in courses in Chemistry.

**Amount:** 1 Silver medal

**Chemistry Club Prize for Chemistry Promotion [I0495]**

Donated by the Chemistry Club, together with the Dean of CPES. Applicants should submit a one-page type-written summary outlining their effort to promote the disciplines of chemistry within the University, or the community to the Executive of the Chemistry Club by February 1st.

**Donor(s):** The Chemistry Club

**Qualification(s):** Student at any semester level enrolled in a degree program administered by the Department of Chemistry, who has made a significant contribution to promotion of chemistry.

**Amount:** 1 award of $200

**City of Guelph 175th Anniversary Awards [I0515]**

Provided by the Guelph Community Foundation, in celebration of the 175th anniversary of the City of Guelph in 2002, as an investment for future generations. Apply to Student Financial Services, by October 7 of the second year of study, with a letter describing Guelph community and University community volunteer activities and extracurricular activities, a completed Need Assessment Form, and two reference letters not to exceed two pages in length from individuals familiar with the volunteer and/or community service contributions. Award may be held only once.

**Donor(s):** The Guelph Community Foundation

**Qualification(s):** Undergraduate students with more than 5.0 credits and less than 10.5 credits of full-time study must have maintained a cumulative 70% average in all courses completed (5.0 credits or more) in the first year study and have demonstrated leadership and financial need. Applicants must be graduates of a City of Guelph high school and be Canadian citizens or permanent residents at the time of application. Selection will include equally weighted consideration of academic performance, leadership both on and off campus and financial need.

**Amount:** 1 award of $1,000

**Class of ’51 OAC Leadership Awards [C0063]**

Established by Year ’51 OAC, on the occasion of its 45th anniversary. At the discretion of the OAC Awards Committee students may be selected before graduation. Application not required.

**Donor(s):** Year ’51 OAC

**Qualification(s):** Students graduating from the degree program in a major in an OAC department who have a 70% standing in the final year of study and who have demonstrated leadership in the College or University extracurricular activities.

**Amount:** 4 awards of $1,000

**Class of ’67 OAC Centennial Scholarship [I0067]**

Apply to Student Financial Services by April 1.

**Donor(s):** Class of OAC ’67

**Qualification(s):** Student majoring in an OAC department who through activity in all branches of college life as well as scholastic achievement has made an outstanding contribution to the University.

**Amount:** 1 award of $1,000

**Class of 1905 Scholarship [I0060]**

Established by the graduating class of 1905. Apply to Student Financial Services, by April 1.

**Donor(s):** Graduating Class of 1905

**Qualification(s):** Student who has completed 15.0 course credits, is registered in a major in an Ontario Agricultural College, is considered to be the most outstanding student in the class and who, through activity in all branches of college life, as well as proficiency in scholarship during the program, has done most for the college, for fellow students and for personal development.

**Amount:** 1 award of $300
IX. Scholarships and Other Awards, Bachelor of Science

**College of Physical Engineering Science Scholarship** [I0076]

Offered by Collins Barrow, a national firm of Chartered Accountants. Awarded in the Winter semester. Application not required.

**Donor(s):** Collins Barrow Chartered Accountants

**Qualifications(s):** Student with the highest grade in course AGEC*3330, Intermediate Accounting, in the Fall semester. In the event of a tie, the scholarship will be given to the student with the highest cumulative average in their program.

**Amount:** 1 award of $500

**College of Biological Science Gold Medalist** [C0072]

Presented to the College of Biological Science nominee for the Winegard Medal. The award will be presented at the time of the Spring Convocation. Application not required.

**Donor(s):** An anonymous donor

**Qualification(s):** The recipient is selected by the Awards Committee of the College of Biological Science.

**Amount:** 1 award of $1,000, 1 Gold Medal

**College of Biological Science Roll of Distinction** [I0000]

Application not required.

**Donor(s):** College of Biological Science

**Qualification(s):** Awarded to full-time students who have completed 5 semesters, and who have a cumulative average of 85% up to the semester of consideration for the award. Part-time students who have completed semester 5 and have taken at least 2 courses per semester over consecutive semesters, are also eligible.

**Amount:** 1 Certificate

**College of Physical Engineering Science Academic Scholarship** [I0073]

Application not required.

**Donor(s):** College of Physical and Engineering Science

**Qualification(s):** Offered in the Winter semester to students who have completed at least 15.0 course credits in a College of Physical and Engineering Science program and have excellent grades but have not received awards recently.

**Amount:** 2 awards of $250

**College of Physical Engineering Science Graduation Prize** [C0075]

The winner will be selected in May from all students who have completed the program in the previous twelve months. Application not required. One award of $250 and a commemorative plaque.

**Donor(s):** College of Physical and Engineering Science

**Qualification(s):** Student graduating with the highest cumulative average from an honours B.SC. program in a Physical and Engineering Science area.

**Amount:** 1 award of $250, 1 Commemorative plaque

**College of Physical Engineering Science Scholarship** [I0076]

Awarded in the Fall semester to a student who has completed semester 6 in the previous Fall, Winter or Spring semesters and who is enrolled in Year 4 of a College of Physical and Engineering Science program. Application not required.

**Donor(s):** College of Physical and Engineering Science

**Qualification(s):** Recipients will be selected on the basis of a high average (minimum 80% average required) in courses normally taken in Year 3.

**Amount:** 1 award of $250

**College of Social Science Alumni Heritage In-Course Scholarships** [I0492]

Established in recognition of the valuable contributions made over many years by College of Social Science alumni and the Alumni Association to the life and vitality of the University. Awarded in the Fall semester. Application not required.

**Donor(s):** College of Social Science Alumni

**Qualification(s):** Students registered in the C.S.A.H.S. with the highest cumulative program average of at least 80.0% who have completed between 10.00 and 12.50 course credits and who registered in C.S.A.H.S. in the subsequent Fall Semester. One scholarship will be awarded to a full or part-time student registered in a program offered by each of the following six C.S.A.H.S. administrative and academic units: Economics, Geography, International Development Studies, Political Science, Psychology and Sociology and Anthropology. This scholarship may be held once only.

**Amount:** 6 awards of $1,000

**Collins Barrow Award** [I0040]

Inspired by Theresa Firestone, FACS ’78, and funded by the Harshman Fellowships Society and Pfizer Canada Inc. Students may apply on their own or be recommended by other students, faculty members or administrators from non-profit organizations. Applications are available from the CSAHS Dean's Office. Application not required.

**Donor(s):** The faculty members of the Department of Chemistry through their Scholarship Trust Fund

**Qualification(s):** Full-time undergraduate students in any degree program offered by the College of Social and Applied Human Sciences and have completed at least 15 course credits with a minimum cumulative 70% average.

**Amount:** 1 award of $350

**CSAHS Student Volunteer Scholarship** [I0482]

Established in memory of David Boyes a technician in the Apiculture Field Laboratory. Application not required.

**Donor(s):** The Apiculture Club

**Qualification(s):** Student registered in the Fall semester who achieves high academic standing in Introductory Apiculture (ENVB*2210) in the previous year, demonstrates an interest in apiculture and who has participated in extracurricular activities.

**Amount:** 1 award of $150

**Deans’ Scholarships** [I0323]

Offered by the Board of Governors. Recipients will be selected by each of the College Awards Committees. Winners will be notified in the Fall semester. Application not required.

**Donor(s):** Board of Governors

**Qualification(s):** Students registered in any degree program. The primary academic criteria is placement on the Deans’ Honours List for two consecutive semesters, excluding semesters 7 and 8, in the previous Fall/Winter/Spring sequence.

**Amount:** 150 awards of $1,000

**Dr. Caesar V. Senoff Memorial Scholarship for Excellence**

Established in memory of Dr. Caesar V. Senoff, a valued member of the University of Guelph faculty from 1968 to 1996, his positive influence continues through his students and colleagues. Application not required.

**Donor(s):** Senoff family and the College of Physical and Engineering Science

**Qualification(s):** Students majoring in any Chemistry program who has completed between 7.5 and 9.75 credits and who has the highest cumulative average over 80%.

**Amount:** 1 award of $500
IX. Scholarships and Other Awards, Bachelor of Science

**Dr. Charles Capstick Graduation Prize [C0558]**

Provided by the Department of Computing and Information Science, these scholarships are awarded in May to students who have completed an undergraduate degree in a Computing and Information Science program and have achieved the highest and second highest cumulative averages at graduation. Application not required.

**Donor(s):** Department of Computing and Information Science

**Qualification(s):** Students who have completed an undergraduate degree in Computing and Information Science (CIS) in the previous twelve months.

- **Amount:** 1 award of $500, 1 award of $300

**Dr. James Linders Scholarship [I0559]**

Provided by the Department of Computing and Information Science, these scholarships are awarded in the Fall semester to students in a Computing and Information Science degree program that achieved the highest and second highest averages in Year 3 Computing and Information Science core courses. Application not required.

**Donor(s):** Department of Computing and Information Science

**Qualification(s):** Undergraduate students in a Computing and Information Science (CIS) degree program who have completed from 15.0 to 17.5 course credits and have taken the CIS core courses required for Year 3.

- **Amount:** 1 award of $500, 1 award of $300

**Dr. Mary McLeish Scholarship [I0560]**

Provided by the Department of Computing and Information Science, these scholarships are awarded in the Fall semester to students in a Computing and Information Science degree program that achieved the highest and second highest averages in Year 1 Computing and Information Science core courses. Application not required.

**Donor(s):** Department of Computing and Information Science

**Qualification(s):** Undergraduate students in a Computing and Information Science (CIS) degree program who have completed from 5.0 to 7.5 course credits and have taken the CIS core courses required for Year 1.

- **Amount:** 1 award of $500, 1 award of $300

**Dr. Ted Swart Scholarship [I0561]**

Provided by the Department of Computing and Information Science, these scholarships are awarded in the Fall semester to students in a Computing and Information Science degree program that achieved the highest and second highest averages in Year 2 Computing and Information Science core courses. Application not required.

**Donor(s):** Department of Computing and Information Science

**Qualification(s):** Undergraduate students in a Computing and Information Science (CIS) degree program who have completed from 10.0 to 12.5 course credits and have taken the CIS core courses required for Year 2.

- **Amount:** 1 award of $500, 1 award of $300

**E.B. MacNaughton Convocation Prize [C0171]**

Established by the College of Physical and Engineering Science to honour Earl B. MacNaughton, former head of the Department of Physics and founding Dean of the College of Physical Science. Application not required. One award of a plaque-mounted medal and $250.

**Donor(s):** The College of Physical and Engineering Science

**Qualification(s):** The College of Physical and Engineering Science nominee for the Winegard Medal.

- **Amount:** 1 award of $250, 1 Plaque-mounted medal

**Egelstaff Scholarship [I0397]**

In honour of University Professor Emeritus and former Chair of the Department of Physics, Peter A. Egelstaff. Awarded in the Winter semester. Application not required.

**Donor(s):** Department of Physics

**Qualification(s):** Student who has completed 12.5 course credits, is currently registered in one of the majors in Physics and has a high cumulative average (of at least 80%) in the required Physics courses normally taken in Years 2 & 3 of the major.

- **Amount:** 1 award of $500

**Ellen Nilsen Memorial Award [I0047]**

Offered by the friends of Ellen Nilsen. Apply to the Director of the Collaborative International Development Studies Programme, Rm 702 MacKinnon Building, by October 7.

**Donor(s):** The Friends of Ellen Nilsen

**Qualification(s):** Academically outstanding woman from a developing country who is registered at the University of Guelph in an undergraduate or a graduate program and who has demonstrated a commitment to social change.

- **Amount:** 1 award of $1,500

**Evelyn Matheson Pepper Memorial Scholarship [I0583]**

The daughters and grandchildren of Evelyn Matheson Pepper, a Mac ’33 graduate, provide this scholarship. Application not required.

**Donor(s):** Ms. Barbara Stuart and Ms. Susan Pepper

**Qualification(s):** Student who achieves the highest grade in the course FRHD*3200, Practicum in Child, Youth and Family I, offered by the department of FRAN.

- **Amount:** 1 award of $1,000

**Ffemench of Canada Millennium Scholarship in Food Science [I0466]**

Established by Ffemench of Canada Limited, a food ingredient company. Apply to Student Financial Services including a covering letter outlining eligibility and related experiences by April 1.

**Donor(s):** Steven Oliver

**Qualification(s):** Student majoring in Food Science who has completed 10.00 credits and has a minimum cumulative average of 75%. Eligible students must have demonstrated creativity in the Food Science classes and have made a significant contribution to the department, the University and the Guelph community through extracurricular activities.

- **Amount:** 1 award of $1,000

**Floyd Roadhouse Prize in Analytical Chemistry [I0247]**

Presented in the Winter semester. Application not required.

**Donor(s):** Colleagues, students and friends of Professor F.E.B. Roadhouse

**Qualification(s):** Student with the highest grade in CHEM*2400 Analytical Chemistry in the previous calendar year, who is continuing in an honours major program administered by the Department of Chemistry. In the event of a tie, laboratory performance will be considered.

- **Amount:** 1 award of $200

**Francis E. Chase Memorial Scholarship [I0055]**

Awarded in the Fall semester. The award will be made on the basis of academic standing, leadership in extracurricular activities. Apply to Student Financial Services by April 1.

**Donor(s):** Mrs. Jane M. Chase

**Qualification(s):** Student who has completed semesters 4 or 6 of the B.SC. program majoring in Food Science.

- **Amount:** 1 award of $450

**Fred Ramprasadh Scholarship [I0474]**

Established through the direction of the College of Biological Science alumni to honour Professor Fred Ramprasadh for his commitment to the college and to the athletic programs at Guelph. The award will recognize the student that best demonstrates the combination of academic excellence and participation in intercollegiate athletics. Application not required. One award of $500 and a medal.

**Donor(s):** The CBS Alumni, 'Annual Donation'

**Qualification(s):** B.S. student with a high academic standing who has been nominated by the Department of Athletics Award Committee. The recipient should have achieved a minimum of 80% in the previous Winter and Fall semesters, which the CIAU recognizes as Academic-All-Canadian status, and made an exemplary contribution to the team(s).

- **Amount:** 1 award of $1,000, 1 Medal

**Gaskin Medal in Marine and Freshwater Biology [C0432]**

Established to honour Dr. David Gaskin, professor in the Department of Integrative Biology from 1968 - 1998, for his contribution to this field. Application not required. One award of a medal and a maximum of $500.

**Donor(s):** The Department of Integrative Biology

**Qualification(s):** The student who graduates at the completion of the Winter semester, or during the previous Fall or Spring semesters with the highest cumulative average in the Department of Integrative Biology's Marine and Freshwater Biology major.

- **Amount:** 1 award of $500, 1 Medal

**George A. Farley Scholarship [I0099]**

Established in memory of George A. Farley, a chemistry graduate of the Class O.A.C. ’33, and presented in the Winter semester. Application not required.

**Donor(s):** James M. Farley

**Qualification(s):** Student enrolled in a Co-op program administered by the Department of Chemistry and who has completed their second work term within the preceding calendar year. Work term reports, work term assessments and course grades will be considered. The student must have a cumulative average of at least 80%.

- **Amount:** 1 award of $250
IX. Scholarships and Other Awards, Bachelor of Science

**George A. Gray OAC ’51 Varsity Scholarships [I0487]**

Established in memory of George Gray, OAC ’51, a Guelph football lineman and a great player of the game. Apply to Student Financial Services by October 7 providing a covering letter describing on- and off-campus academic and extra-curricular activities and a completed Need Assessment Form. Awarded at the annual Athletics Banquet.

**Donor(s):** Mrs. George A. Gray

**Qualification(s):** Undergraduate degree or diploma students who are members of varsity teams and in the second, third, fourth or fifth year of full-time study with a minimum 70% average in all courses completed in the previous year of study and have demonstrated leadership. Selection will include equally weighted consideration of academic performance, leadership and financial need. Preference will be given to members of the varsity football team. Examples of leadership may include academic tutoring, mentoring team mates, assisting in the organization and promotion of varsity and/or intramural athletics, participation on university committees, such as in residences, on Senate or in Colleges, and similar off-campus activities. Students may receive the award up to four times.

**Amount:** 2 awards of $1,250

**George I. Christie Scholarship [C0347]**

The late George I. Christie, president of O.A.C. from 1928 to 1945, established a trust fund to provide this annual scholarship for graduate work. Applications approved by the Chair, Department of Animal and Poultry Science, should be submitted to the O.A.C. Dean's office by April 1.

**Donor(s):** Trust Fund (late President George I. Christie)

**Qualification(s):** Awarded to a student graduating with high standing in an animal and poultry science courses who proposes to pursue graduate studies in animal science at any institution of his/her choice.

**Amount:** 1 award of $800

**GBICO/BRL Microbiology Research Excellence Award [C0297]**

This award is funded by an endowment provided by the GIBCO/BRL Enzyme Freezer Program. Nominations from Faculty supervisors should be submitted to the Chair of the Department of Molecular and Cellular Biology between April 15 and April 30 of each year.

**Donor(s):** Department of Molecular and Cellular Biology and the GIBCO/BRL Enzyme Freezer Program

**Qualification(s):** Undergraduate student who has produced and presented the best all round research project in MICR*4301 and/or MICR*4320 Research Project I and/or II in Microbiology.

**Amount:** 1 award of $500

**GlobalTox Award for Academic Excellence [I0135]**

GlobalTox International Consultants Inc. offers this award. Application not required.

**Donor(s):** GlobalTox International Consultants Inc.

**Qualification(s):** Student who is registered in the honours toxicology program and has the highest grade in Principles of Toxicology (TOX*2000).

**Amount:** 1 award of $200

**Gonder Family Centre for Students with Disabilities Volunteer Award [I0563]**

In recognition of the many students who volunteer their time and talents to assist their colleagues registered with the Centre for Students with Disabilities (CSD) and to encourage others to do so, Dr. John and Mrs. Katherine Gonder provide this award to a student who has volunteered in the CSD. The award will be made on the basis of the volunteer activities undertaken by the student at the CSD, one letter of reference, and a personal statement that outlines the time commitment and types of volunteer activities undertaken as well as an indication of how this was a valuable and rewarding volunteer experience. Apply by January 15th to the CSD (c/o Advisor to Students with Disabilities) by submitting above documentation.

**Donor(s):** Dr. John and Mrs. Katherine Gonder

**Qualification(s):** All students registered in the College of Social and Applied Human Science (CSAHS) that have completed between 10.0 and 15.0 course credits with a minimum 70% cumulative average, and have been involved as volunteers with the CSD.

**Amount:** 1 award of $900

**Governor General’s Medal [C0044]**

Established by the Office of the Governor General of Canada. Application not required.

**Donor(s):** The Chancellery

**Qualification(s):** Restricted to those undergraduate students in any degree program who are graduating in June, or who have graduated in the previous two convocations, with the highest cumulative average.

**Amount:** 1 Silver medal

**Greg Muir Memorial Scholarship [I0196]**

The Greg Muir Memorial Scholarship is awarded by Champlain Industries of Stanbridge Station, Quebec, to a Food Science student in the B.SC. program. Preference will be given to students entering semester 3 who are from the Province of Quebec. If there is no candidate in semester 3 from the Province of Quebec a candidate will be sought from semester 5. Apply to Student Financial Services by April 1.

**Donor(s):** Champlain Industries Ltd.

**Qualification(s):** B.SC. Food Science students on the basis of academic standing and participation in extracurricular activities.

**Amount:** 1 award of $1,000

**Guelph Soap Company Scholarship [I0288]**

The Guelph Soap Company donates this scholarship towards tuition fees, which is awarded in the Winter semester. Application not required.

**Donor(s):** Tricorp Chemical Specialties

**Qualification(s):** Student enrolled in the organic chemistry courses CHEM*3750 and CHEM*3760 during the previous calendar year who has obtained the highest average in one Biochemistry course and two Organic Chemistry courses, and who is continuing in an honours major program administered by the Department of Chemistry.

**Amount:** 1 award of $1,200

**Guelph Varsity Athletic Accessibility Scholarship [I0518]**

Established by alumni and friends of the University of Guelph. Apply to Student Financial Services by October 7 providing a covering letter describing on- and off-campus academic and extra-curricular activities and a completed Need Assessment Form. Awarded at the annual Athletics Banquet.

**Donor(s):** Alumni and friends of the University of Guelph

**Qualification(s):** Undergraduate degree or diploma students, with at least 5.0 credits and less than 20.5 credits, who are members of a varsity athletic team and who have demonstrated financial need, are eligible to apply. Students must have maintained at least a 70% cumulative average in all courses completed in the previous year of study (minimum 3.0 credits). Selection will be based upon equally weighted consideration of academic performance and evidence of leadership qualities. Students may receive the award up to four times.

**Amount:** 2 awards of $1,250

**H.O. Shackleton Memorial Scholarship [C0255]**

Interested students should apply to the Chair of the Department of Molecular and Cellular Biology by April 1, in order to be considered for this scholarship.

**Donor(s):** Mrs. H.O. Shackleton

**Qualification(s):** Student graduating in the B.Sc. Microbiology (major or minor) and planning to pursue graduate studies in Microbiology at a recognized University. The recipient will be selected by the Awards Committee of the College of Biological Science on the basis of the highest cumulative average grade amongst applicants who have not won a major scholarship (such as a NSERC or Ontario Government). Nomination will be made by the Department of Molecular and Cellular Biology at the end of the Winter semester.

**Amount:** 1 award of $500

**Highdane Farms Scholarship [I0348]**

Apply to Student Financial Services, by April 1.

**Donor(s):** Arthur Spoerri

**Qualification(s):** Two awards are available for students in semesters 3 through 6 with at least a 75% cumulative average and whose primary area of study is related to the natural sciences. The first award is based on academic proficiency. The second award is based on academic proficiency and demonstrated leadership with preference given to students from Ottawa-Carleton, Dundas-Glengarry-Stormont, Grenville, Lanark, Prescott-Russell and Renfrew counties.

**Amount:** 2 awards of $2,000
IX. Scholarships and Other Awards, Bachelor of Science

**HK/HB Alumni Association Graduation Prize [C0452]**


**Donor(s):** The HK/HB Alumni Association

**Qualification(s):** Student graduating from the Human Kinetics major in the Department of Human Biology and Nutritional Sciences, with at least a B cumulative average. Selection by the College of Biological Science, on the recommendation of the departmental awards committee. The award recognizes a student who has contributed and provided leadership to the academic, administrative and social life of the department and the university, including academic activities (department/college committees, senate etc.), intramural and varsity athletics, support and assistance with class, college and university activities (such as HK/HB Symposium, College Royal etc.). Nominations from faculty and students are submitted to the department by February 1st each year for students graduating in the subsequent June convocation or for students who graduated in the previous February or October convocations.

**Amount:** 1 award of $250

**Honours Biochemistry Scholarship [I0128]**

This scholarship is donated by the faculty of the Department of Molecular and Cellular Biology through their scholarship trust fund and is awarded annually in the Winter semester. Application not required.

**Donor(s):** Department of Molecular and Cell Biology

**Qualification(s):** Student who is enrolled in the B.SC. Honours Biochemistry program who completed semester 4 in the previous calendar year, and has achieved the highest cumulative average over four semesters, providing that at least 3.00 credits offered by the Department of Chemistry have been taken.

**Amount:** 1 award of $1,000

**Honours Chemistry Scholarship [I0129]**

This scholarship is donated by the faculty of the Department of Chemistry through their scholarship trust fund and is awarded annually in the Winter semester. Application not required.

**Donor(s):** Faculty of the Department of Chemistry

**Qualification(s):** Student who is enrolled in the B.SC. Honours Chemistry program who completed semester 4 in the previous calendar year, and has achieved the highest cumulative average over four semesters, providing that at least 3.00 credits offered by the Department of Chemistry have been taken.

**Amount:** 1 award of $1,000

**Hugh Branion Memorial Scholarship [I0033]**

The scholarship will be awarded on the recommendation of the Department of Human Biology and Nutritional Sciences, based on academic achievement in the first 7 semesters. This scholarship is not tenable with the Brian L. Walker Memorial Scholarship. Application not required.

**Donor(s):** Friends of Dr. Hugh Branion

**Qualification(s):** Student registered in semester level 8 in B.SC. Nutritional and Nutraceutical Sciences major in the Winter semester.

**Amount:** 1 award of $500

**Hurnik Award in Agricultural Ethics [I0455]**

Provided by Dr. Frank Hurnik, Professor Emeritus, and faculty member in Animal and Poultry Science from 1971 to 1997. Dr. Hurnik initiated work in behavioral studies and animal welfare at Guelph, developed the first course in Animal Welfare, and was co-founder and editor of the Journal of Agricultural and Environmental Ethics. Apply by letter to the Chair, Animal and Poultry Science, by February 1 outlining details of the project or meeting.

**Donor(s):** Dr. Frank Hurnik

**Qualification(s):** O.A.C. undergraduate or graduate students who are associated with the department of Animal & Poultry Science and who undertake a project or attend a conference/scientific meeting or publish a paper in animal welfare or agricultural ethics may apply. A minimum of B standing for undergraduate students and A- standing for graduate students in the last two semesters is required. The award will be given to the student who has the best presentation, paper or project.

**Amount:** 1 award of $500

**International Flavour and Fragrances (Canada) Ltd. Scholarship [I0141]**

The award will be made on the basis of academic proficiency in semester levels 1 and 2. Preference will be given to candidates who have shown an ability to co-operate with fellow students in activities associated with Food Science. Application not required.

**Donor(s):** International Flavour and Fragrances Ltd.

**Qualification(s):** Student in the B.SC. program (Food Science major) upon completion of the 2nd semester level.

**Amount:** 1 award of $500

**Isabella Anderson Conway Scholarship [I0286]**

Application not required.

**Donor(s):** Mr. Charles Abbott Conway

**Qualification(s):** Awarded to the student in the Nutrition and Nutraceutical Sciences major who has achieved the highest combined average in the courses NUTR*2150 Introduction to Nutrition and Food Science, NUTR*3210 Fundamentals of Nutrition and CHEM*2580 Introductory Biochemistry.

**Amount:** 1 award of $500

**J.B. Reynolds Graduation Medal in Physics [C0399]**

This medal is awarded to a graduating student in the Spring semester or the previous Fall or Winter Semesters. Application not required.

**Donor(s):** Department of Physics

**Qualification(s):** Student who has completed semester 8 of any of the majors in Physics and who has obtained the highest cumulative average in the required Physics courses of that program, normally taken in semester 5 to 8.

**Amount:** 1 Medal

**J.D. Cunningham Industrial Scholarship [I0287]**

Apply to Student Financial Services by April 1.

**Donor(s):** J.D. Cunningham

**Qualification(s):** Awarded to a student with a minimum cumulative average of 75% who has completed semester 6 in Food Science. Work experience in industrial microbiology, participation in extracurricular activities and demonstrated leadership skills are also considered.

**Amount:** 1 award of $900

**J.L. Campbell Scholarship [I0479]**

Established in honour of J.L. (Iain) Campbell, former Provost and Vice-President (Academic), of the University of Guelph from 1995 to 2000 and former Dean of the College of Physical and Engineering Science from 1987 to 1995. Application not required.

**Donor(s):** Family, friends and colleagues of J.L. Campbell

**Qualification(s):** Student who is currently registered in one of the majors in Physics and who has completed at least 12.50 credits, with a high cumulative average (at least 80%) in the required Physics courses normally taken in Year 2 and 3 of the major.

**Amount:** 1 award of $500

**J.M. Christie Prize [C0213]**

Application not required.

**Donor(s):** Dr. G.I. Christie

**Qualification(s):** Graduating student in the Food Science major of the B.SC. program with the highest academic standing throughout eight semester levels.

**Amount:** 1 Plaque

**Jack K. Barclay Physiology Scholarship [I0491]**

Established in honour of Jack K. Barclay, Director of the School of Human Biology from 1989-1991. He was the first chair of the Department of Human Biology and Nutritional Sciences from 1996-2001 and was involved in creating, teaching and implementing HK 3940 Human Physiology. Apply by February 1st to the Chair, Department of Human Biology and Nutritional Sciences, with a letter outlining leadership contributions to the University and the community. Awarded in the Winter semester.

**Donor(s):** HK/HB Alumni Association

**Qualification(s):** Full-time undergraduate student enrolled in a major within the Department of Human Biology and Nutritional Sciences, who has completed HK*3940, Human Physiology with a minimum 70% average and who has made leadership contributions to the University or the outside community.

**Amount:** 1 award of $500
James L. Mottin Award for Academic and Extracurricular Excellence [C0344]

Provided by the Department of Psychology to recognize its nominee for the Winegard Medal. Apply to the Department of Psychology Undergraduate Academic Counsellor by January 15th, including a list of extracurricular activities.

Donor(s): The Department of Psychology

Qualification(s): Student must be enrolled in the B.A. Honours program or the honours specialization in the B.SC. program majoring in Psychology. The recipient will be selected on the basis of high academic achievement and extracurricular involvement.

Amount: 1 award of $200

Jean Carter Memorial Gerontology Scholarship [I0488]

Established by the family and friends of Jean Carter, a Mac’38 graduate who was actively involved in the life of the College and the University. Apply by letter to the CSAHS Undergraduate Awards Committee. Deadline for applications is April 1st. Students are expected to demonstrate a genuine interest in the field of gerontology.

Qualification(s): Student entering semester 5 or 6 in the Winter semester who has a cumulative 80% average.

Amount: 1 award of $1,000

John A. Archibald Memorial Scholarship [I0014]

Awarded in memory of John A. Archibald, former Director of the Horticultural Research Institute of Ontario. Apply to Student Financial Services by April 1.

Donor(s): Mrs. Jim Stokman

Qualification(s): Available to O.A.C. students who have completed 5.0 credits with at least 'B' average in one of the following programs: B.SC.(Agr.), B.Com., B.SC. or B.SC.(Env.). Students must have come from a rural background and have demonstrated community/student involvement both during high school and the first two semesters of University.

Amount: 1 award of $600

John T. Powell Scholarship [I0237]

Apply to the Department of Human Biology and Nutritional Sciences by December 1.

Donor(s): Human Kinetics Alumni Association

Qualification(s): Student entering semester 5 or 6 in the Winter semester who has maintained a 70% average or better; who is active in extra curricular activities conducted by the University; who has contributed to the annual Human Kinetics Symposium at the organizational and/or operational level; and who has been enrolled full-time in the Human Kinetics major for at least 2 semesters.

Amount: 1 award of $350

Kae and Gordon Skinner Memorial Scholarship [C0258]

Provided by the late Kae Stalker Skinner (Mac ’30) and Gordon Skinner (O.A.C.’24), former Registrar of the Ontario Institute of Agrologists. Consideration will be given to participation in the Student Branch of the Ontario Institute of Agrologists. Apply to Student Financial Services by April 1.

Donor(s): The estates of the late Mr. and Mrs. A.G. Skinner

Qualification(s): O.A.C. student graduating from the B.SC.(Agr.), B.SC., or B.Comm. programs who has made a significant contribution to developing an understanding of the profession of agrology among fellow students.

Amount: 1 award of $750

Kenneth W. Hammond Award [I0045]

The evaluation of the student will be based on the final essay in the "Environmental Perspectives and Human Choice: 5000 Days’ course. The selection committee will be comprised of 4 persons: the donor, the Director of the Arboretum, the Dean of Physical and Engineering Science and the Dean of Biological Science. Application not required.

Donor(s): Kenneth W. Hammond

Qualification(s): Student who has demonstrated an understanding of the world’s resource situation and its proper use by humankind.

Amount: 1 award of $1,000

Kae and Gordon Skinner Memorial Scholarship [C0258]

Established by Friends and Family in memory of Ken Berg, a 1982 C.B.S. Microbiology alumnus. The focus of this award reflects Ken’s success in applied education in the work force. Nomination by the Microbiology Co-op Program Committee.

Donor(s): Family and friends of Ken Berg

Qualification(s): C.B.S. Microbiology student who excels in all aspects of the third co-op work term.

Amount: 1 award of $1,000

Land Resource Science Academic Scholarship [C0425]

Provided by the Land Resource Science Endowment fund. Application not required.

Donor(s): Provided by the Land Resource Science Endowment Fund

Qualification(s): Student graduating from any major in the department with a minimum cumulative average.

Amount: 1 Book prize

Land Resource Science Academic Scholarship [C0426]

Provided by the Land Resource Science Endowment fund. Application not required.

Donor(s): Provided by the Land Resource Science Endowment Fund

Qualification(s): Student graduating from any major in the department with a minimum cumulative average.

Amount: 1 award of $1,000

Land Resource Science Achievement Scholarship [C0426]

Provided by the Land Resource Science Endowment fund. Application not required.

Donor(s): Provided by the Land Resource Science Endowment Fund

Qualification(s): Student graduating from any major in the department with a minimum cumulative average.

Amount: 1 award of $1,000

Lange and Prokipcak Chemistry Scholarship [I0528]

This scholarship was established by Professor Gordon L. Lange, Professor Joe M. Prokipcak, friends and colleagues. Professors Gordon L. Lange and Joe M. Prokipcak were valued members of the Chemistry Faculty who retired in 2001. Their excellence in teaching was recognized within the university and nationwide, winning them a total of eleven teaching awards. Application not required.

Donor(s): Professor Gordon L. Lange, Professor Joe M. Prokipcak and friends

Qualification(s): Student in CPES with the highest average grade in CHEM*1040,1050 and 2700 who has completed a minimum of 10.0 credits up to a maximum of 14.75 credits.

Amount: 1 award of $1,000
<table>
<thead>
<tr>
<th>Scholarship Name</th>
<th>Amount</th>
<th>Qualification(s)</th>
<th>Donor(s)</th>
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<tbody>
<tr>
<td><strong>Leibniz/Newton Scholarship [I0156]</strong></td>
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<tr>
<td>Established in honour of two founding fathers of calculus. Awarded in the Fall semester. Not tenable with the T.D. Newton Memorial Scholarship. Application not required.</td>
<td>1 award of $500</td>
<td>A second year student majoring in mathematics or statistics (i.e. one who has completed a minimum of 5 credits up to a maximum of 9.75 credits) who has a cumulative average of at least 80% and the highest grades over 80% in MATH<em>1200 and MATH</em>1210. A student may be considered for this award only once.</td>
<td>The Department of Mathematics and Statistics</td>
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<tr>
<td><strong>Leonard Conolly Exchange Student Scholarship [I0446]</strong></td>
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<tr>
<td>Established by students, faculty, staff and friends to honour Prof. Leonard Conolly, professor of drama, Chair of the Department of Drama, 1981-88, and Associate Vice-President Academic, 1988-92. Apply to the Centre for International Programs by April 5 for visiting during the subsequent Fall or Winter semesters.</td>
<td>1 award of $1,200</td>
<td>Students who have completed semester 6 of the Environmental Biology Qualification(s):</td>
<td>Students, staff, faculty and friends of Dr. Leonard Connolly</td>
</tr>
<tr>
<td><strong>MacKenzie Scholarship [I0398]</strong></td>
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<tr>
<td>In honour of University Professor Emeritus Innes K. MacKenzie. Not tenable with the Egelstaff Scholarship. Application not required.</td>
<td>3 awards of $2,500</td>
<td>Students who have completed 12.5 course credits and are currently registered in Physics. The awards are allocated to the three students, with the highest cumulative averages, who have completed 5.00, 10.00 and 15.00 credits respectively.</td>
<td>The Department of Physics</td>
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<tr>
<td><strong>MacNaughton Scholarship [I0422]</strong></td>
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<tr>
<td>Established by Earl B. MacNaughton, former head of the Department of Physics and founding Dean of the College of Physical Science. Awarded in the Winter semester. Application not required.</td>
<td>1 award of $500</td>
<td>Students who have completed semester 5 and is currently registered in one of the majors in Physics. It is given to a student with a high cumulative standing (of at least 80%) in the required physics courses normally taken in Years 2 &amp; 3 of the major.</td>
<td>Earl B. MacNaughton</td>
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<tr>
<td><strong>Mae McEwen Memorial Scholarship [I0185]</strong></td>
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<tr>
<td>Apply to Student Financial Services, by April 1.</td>
<td>1 award of $1,200</td>
<td>Students who has completed semester 6 of the Environmental Biology major in the B.Sc. or B.Sc (Env.) programs with a cumulative average of 80% or better. Participation in extra curricular activities related to environmental issues will be considered in determining the recipient.</td>
<td>The estate of Mae McEwen</td>
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<tr>
<td><strong>Maple Leaf Foods Inc. Shur-Gain Scholarship [I0307]</strong></td>
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<tr>
<td>Provided by Shur-Gain, a member of Maple Leaf Foods Inc. Apply to Student Financial Services by April 1.</td>
<td>1 award of $2,000</td>
<td>Students in the B.SC. Food Science major who have financial need. In-course students must have maintained at least a 70% cumulative average, while first semester students must have had a 70% average in high school science courses. Students may hold the award once unless there are no other eligible candidates in a subsequent year.</td>
<td>McCormick Canada Inc.</td>
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<tr>
<td><strong>Monroe Landon Memorial Scholarship [C0153]</strong></td>
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<td>This scholarship is offered by the family and friends of the late Professor and Mrs. R. C. Moffatt. This scholarship will be awarded in the Fall semester. Application not required.</td>
<td>1 award of $200</td>
<td>Students who has completed 10.0 course credits in one of the previous Fall, Winter or Spring semesters and is enrolled in Year 3 or higher of an honours program in Mathematics, Statistics or Physics. The recipient will be selected on the basis of a high cumulative average (minimum 80% average required) on the work in Mathematics, Statistics and Physics from the first 2 years.</td>
<td>The friends of Monroe Landon</td>
</tr>
<tr>
<td><strong>O.A.C. Students' Federation Medal [C0217]</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Application not required.</td>
<td></td>
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</tr>
<tr>
<td><strong>OAC ’55 Scholarships [I0064]</strong></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Provided by the class of OAC ’55. Apply to Student Financial Services by April 1.</td>
<td>1 award of $2,000</td>
<td>Students who are registered in any OAC degree program or students enrolled in the B.SC.(Eng.) program and have completed semester 4. Recipients will have made an outstanding contribution to College life through academic proficiency and participation in extracurricular activities and can be considered to have done the most for the College, for fellow students and in their personal development. Recipients must have a 70% minimum cumulative average.</td>
<td>OAC ’55</td>
</tr>
</tbody>
</table>

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**IX. Scholarships and Other Awards, Bachelor of Science**

153
### OAC Centennial Graduate Fellowships [C0209]

The Ontario Agricultural College celebrated its 100th Anniversary in 1974. Many organizations and companies associated with the agricultural industry provided funds in conjunction with the Centennial activities. Funds have been established in perpetuity as a permanent commemoration of the Centennial of the College. Apply to Student Financial Services by April 1.

**Donor(s):** Dean, OAC  
**Qualification(s):** Students graduating from a degree program administered by the Ontario Agricultural College and who plan to pursue graduate studies in any department or school of the Ontario Agricultural College in the year of baccalaureate graduation are eligible for these fellowships. The fellowship will be based on academic achievement in semesters 7 and 8, as well as participation in extracurricular activities throughout the student's university career.

**Amount:** 2 awards of $2,200

### Pharmacia & Upjohn Award in Microbiology [I0295]

Offered in the Winter Semester by the Pharmacia Company of Canada. Not tenable with the Shutt Memorial Scholarship. Application not required.

**Donor(s):** Pharmacia & Upjohn International Inc.  
**Qualification(s):** Student enrolled in the B.SC. Microbiology major who has completed the 7th semester level with the highest cumulative average in those core courses offered by the Department of Molecular and Cellular Biology.

**Amount:** 1 award of $500

### Psychology Core and Methodology Scholarship [I0345]

Provided by the Department of Psychology. Application not required.

**Donor(s):** The Department of Psychology  
**Qualification(s):** Student enrolled in the B.A. honours program or the honours specialization in the B.SC. program majoring in Psychology who has completed PSYC*2010 and PSYC*2360 and the Psychology core course requirements.

**Amount:** 1 award of $200

### Psychology Honours Thesis Prize [I0343]

Provided by the Department of Psychology. Application not required.

**Donor(s):** The Department of Psychology  
**Qualification(s):** Student enrolled in the B.A. Honours program or the honours specialization in the B.SC. program majoring in Psychology, having the highest cumulative specialization average after completing at least 15.0 course credits, including those prerequisite courses associated with the honours thesis PSYC*3370. Award may be held on only one occasion.

**Amount:** 1 award of $200

### Psychology Senior Honours Prize [I0342]

Provided by the Department of Psychology. Application not required.

**Donor(s):** Department of Psychology  
**Qualification(s):** Student enrolled in the B.A. Honours program or the honours specialization in the B.SC. program majoring in Psychology, having the highest cumulative specialization average after completing at least 15.0 course credits, including those prerequisite courses associated with the honours thesis PSYC*3370. Award may be held on only one occasion.

**Amount:** 1 award of $200

### R.A. Fisher Statistics Scholarship [I0102]

Established to honour one of the founding fathers of statistics. Awarded in the Fall semester. Not tenable with the Year 3 Statistics Scholarship. Application not required.

**Donor(s):** Faculty, students and other affiliates of the Department of Mathematics and Statistics  
**Qualification(s):** Student majoring in statistics in year three (i.e., one who has completed a minimum of 10.00 credits up to a maximum of 14.75 credits) who has a cumulative average of at least 80% and the highest grades over 80% in STAT*2040 and STAT*2050 or equivalent. A student may be considered for this award only once.

**Amount:** 1 award of $500

### R.C. Moffatt Memorial Scholarship in Mathematics or Statistics [I0536]

This scholarship was established by the Estate of Professor R.C. Moffatt. A student may be considered for this award in both third and fourth years. This award is not tenable with any other Department of Mathematics or Statistics scholarships. Application not required.

**Donor(s):** Estate of Professor R.C. Moffatt  
**Qualification(s):** Student in year 3 or 4 (i.e., who has completed a minimum of 10.0 credits up to a maximum of 19.75 credits) enrolled as a mathematics or statistics major. The recipient will be selected on the basis of a high cumulative average over 80%.

**Amount:** 1 award of $900

### R.C. Moffatt Memorial Scholarship in Physics [I0535]

This scholarship was established by the Estate of Professor R.C. Moffatt. A student may be considered for this award in both third and fourth years. This award is not tenable with any other Department of Physics scholarships. Application not required.

**Donor(s):** Estate of Professor R.C. Moffatt  
**Qualification(s):** Student in year 3 or 4 (i.e., who has completed a minimum of 10.0 credits up to a maximum of 19.75 credits) enrolled as a physics major. The recipient will be selected on the basis of a high cumulative average over 80%.

**Amount:** 1 award of $900

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<table>
<thead>
<tr>
<th>Scholarship Name</th>
<th>Description</th>
<th>Qualification(s)</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peter Mann Award for Embryology I2032</td>
<td>Provided by colleagues and friends of Dr. Mann, a scholar and teacher of Embryology from 1954-1987. Application not required.</td>
<td>Student from any degree program completing the course BIOM*3040 Biomedical Embryology, with the highest academic standing.</td>
<td>1 award of $100</td>
</tr>
<tr>
<td>Pacific Regeneration Technologies (PRT) Scholarship</td>
<td>Provided by Pacific Regeneration Technologies Inc. (PRT), Canada's largest forestry nursery company. Application not required.</td>
<td>Undergraduate students who have completed at least 15.00 credits or more, and who have taken the forestry ecology course ENVB*4780 are eligible. High academic standing, with a preference to those graduating with a Forest Science minor, or related major/minor, will be used to select the winner.</td>
<td>1 award of $500</td>
</tr>
<tr>
<td>Oxford County Pork Producers Scholarship (Degree)</td>
<td>The Oxford County Pork Producers have made available this scholarship. Apply to OAC Awards Committee by April 1 with a letter of up to two pages in length including information about leadership, community involvement and pork industry involvement.</td>
<td>Any student who has completed a minimum of 5.0 credits in an OAC degree program with a minimum cumulative average of 70%, pork production background or interest in pork production/industry, and demonstrated leadership and/or community involvement. Preference will be given to students from Oxford County or surrounding area.</td>
<td>1 award of $1,000</td>
</tr>
<tr>
<td>Ontario Food Processors Association Scholarship</td>
<td>This award is offered by Ontario Food Processors' Association. Application not required.</td>
<td>Student majoring in Food Science entering the 7th semester with a minimum cumulative average of 70%. Priority will be given to students who have demonstrated academic proficiency in quality assurance, and who have participated in extra curricular activities.</td>
<td>1 award of $1,000</td>
</tr>
<tr>
<td>Ontario Dairy Council Scholarship C0221</td>
<td>The Ontario Dairy Council offers this scholarship in honour of the late P. Bruce Scott. Application not required.</td>
<td>Student from any degree program completing the course BIOM*3040 Colleagues and friends of Dr. Mann.</td>
<td>1 award of $100</td>
</tr>
<tr>
<td>OAC Centennial Graduate Fellowships C0209</td>
<td>The Ontario Agricultural College celebrated its 100th Anniversary in 1974. Many organizations and companies associated with the agricultural industry provided funds in conjunction with the Centennial activities. Funds have been established in perpetuity as a permanent commemoration of the Centennial of the College. Apply to Student Financial Services by April 1.</td>
<td>Students graduating from a degree program administered by the Ontario Agricultural College and who plan to pursue graduate studies in any department or school of the Ontario Agricultural College in the year of baccalaureate graduation are eligible for these fellowships. The fellowship will be based on academic achievement in semesters 7 and 8, as well as participation in extracurricular activities throughout the student's university career.</td>
<td>2 awards of $2,200</td>
</tr>
<tr>
<td>Psychology Honours Thesis Prize I0343</td>
<td>Provided by the Department of Psychology. Application not required.</td>
<td>Student enrolled in the B.A. Honours program or the honours specialization in the B.SC. program majoring in Psychology, having the highest cumulative specialization average after completing at least 15.0 course credits, including those prerequisite courses associated with the honours thesis PSYC*3370. Award may be held on only one occasion.</td>
<td>1 award of $200</td>
</tr>
<tr>
<td>Psychology Senior Honours Prize I0342</td>
<td>Provided by the Department of Psychology. Application not required.</td>
<td>Student enrolled in the B.A. Honours program or the honours specialization in the B.SC. program majoring in Psychology, having the highest cumulative specialization average after completing at least 15.0 course credits, including those prerequisite courses associated with the honours thesis PSYC*3370. Award may be held on only one occasion.</td>
<td>1 award of $200</td>
</tr>
<tr>
<td>R.A. Fisher Statistics Scholarship I0102</td>
<td>Established to honour one of the founding fathers of statistics. Awarded in the Fall semester. Not tenable with the Year 3 Statistics Scholarship. Application not required.</td>
<td>Student majoring in statistics in year three (i.e., one who has completed a minimum of 10.00 credits up to a maximum of 14.75 credits) who has a cumulative average of at least 80% and the highest grades over 80% in STAT<em>2040 and STAT</em>2050 or equivalent. A student may be considered for this award only once.</td>
<td>1 award of $500</td>
</tr>
<tr>
<td>R.C. Moffatt Memorial Scholarship in Mathematics or Statistics I0536</td>
<td>This scholarship was established by the Estate of Professor R.C. Moffatt. A student may be considered for this award in both third and fourth years. This award is not tenable with any other Department of Mathematics or Statistics scholarships. Application not required.</td>
<td>Student in year 3 or 4 (i.e., who has completed a minimum of 10.0 credits up to a maximum of 19.75 credits) enrolled as a mathematics or statistics major. The recipient will be selected on the basis of a high cumulative average over 80%.</td>
<td>1 award of $900</td>
</tr>
<tr>
<td>R.C. Moffatt Memorial Scholarship in Physics I0535</td>
<td>This scholarship was established by the Estate of Professor R.C. Moffatt. A student may be considered for this award in both third and fourth years. This award is not tenable with any other Department of Physics scholarships. Application not required.</td>
<td>Student in year 3 or 4 (i.e., who has completed a minimum of 10.0 credits up to a maximum of 19.75 credits) enrolled as a physics major. The recipient will be selected on the basis of a high cumulative average over 80%.</td>
<td>1 award of $900</td>
</tr>
</tbody>
</table>
Robert Harcourt Scholarships [0121]

This fund was established by the late Mrs. R. Harcourt in honour of the late Dr. Robert Harcourt. Application not required.

*Donor(s):* Established by the late Mrs. R. Harcourt in honour of the late Dr. Robert Harcourt.

*Qualification(s):* Students who have completed the 4th or 6th semester levels with an interest in courses in the Department of Land Resource Science.

*Amount:* 2 awards of $1,250.

Robert Orr Lawson Second Year Microbiology In-course Scholarship [0149]

Provided through a generous bequest from the estate of Robert Orr Lawson with matching support from the Department of Molecular and Cellular Biology to encourage study and research related to microbiology of foods. The scholarship is paid over three years in installments of $1,000. The second and third payments are contingent upon obtaining a minimum average of 77% over the previous two semesters of continued study in the major. Students who fail to qualify for a payment may re-qualify for the subsequent payment by obtaining a 77% or better average in the succeeding two academic semesters of full-time study. Apply to the Chair, Department of Molecular and Cellular Biology by April 1 if the intent is to continue the Microbiology major in the following September.

*Donor(s):* Department of Molecular and Cellular Biology and the estate of the late Robert Orr Lawson.

*Qualification(s):* Student with a minimum 80% average in the B.SC. program at the completion of the first two semesters of study who has declared a Microbiology major and has the highest cumulative average, providing that the average grade is 80% or greater for 5 credits. This scholarship may be held with any other awards, except the Microbiology Entrance Bursary, or any of the other Robert Orr Lawson Microbiology Scholarships.

*Amount:* 1 award of $3,000.

Robert Orr Lawson Third Year Microbiology In-course Scholarship [0149]

Provided through a generous bequest from the estate of Robert Orr Lawson with matching support from the Department of Molecular and Cellular Biology to encourage study and research related to microbiology of foods. The scholarship is paid over two years in installments of $1,000. The second payments is contingent upon obtaining a minimum average of 77% over the previous two semesters of continued full-time study (5 credits) in the major. Apply to the Chair, Department of Molecular and Cellular Biology by April 1 if the intent is to continue the Microbiology major in the following September.

*Donor(s):* Department of Molecular and Cellular Biology and the estate of the late Robert Orr Lawson.

*Qualification(s):* Student with a minimum 80% average in the B.SC. program at the completion of the first four semesters of full-time study (10 credits) who has declared a Microbiology major and has the highest cumulative average, providing that the average grade is 80% or greater. This scholarship may be held with any other awards, except the Microbiology Entrance Bursary, or any of the other Robert Orr Lawson Microbiology Scholarships.

*Amount:* 1 award of $2,000.

Robin Hood Multifoods Graduation Award [0248]

Apply to Student Financial Services by April 1.

*Donor(s):* Robin Hood Multifoods Inc.

*Qualification(s):* Outstanding student in Food Science who, at graduation, has a cumulative ‘A’ average and a record of participation in extracurricular and leadership contributions.

*Amount:* 1 award of $500.

Robin Hood Multifoods Scholarships [0363]

Apply to Student Financial Services by April 1.

*Donor(s):* Robin Hood Multifoods Inc.

*Qualification(s):* Outstanding student entering semester 3 in Food Science who has a cumulative ‘A’ average and a record of participation in extracurricular activities.

*Amount:* 1 award of $500.

Roche Award in Molecular Biology and Genetics [0030]

Provided by Roche Diagnostics and presented to a student graduating in the Molecular Biology and Genetics Major. Application not required. One award of $500 plus a commemorative plaque.

*Donor(s):* Roche Diagnostics

*Qualification(s):* The award will be given to the student with the highest cumulative average graduating in the Fall, Winter, or Spring semester of the academic year.

*Amount:* 1 award of $500, 1 Commemorative plaque.

Ronald Ko Scholarship [0151]

This scholarship represents income generated by a trust fund established by Dr. Ko. One annual award is presented in the Winter semester. Application not required.

*Donor(s):* Dr. Ronald Ko, Department of Zoology, University of Hong Kong.

*Qualification(s):* Student with the highest grade in the Wild LifeParasitology course (ZOO*3010) in the Department of Integrative Biology, currently offered in the Fall semester.

*Amount:* 1 award of $500.

Sharon Marshall Memorial Prize [0448]

Established by the family in memory of their daughter, Sharon Marshall, an undergraduate student from 1994-1997. Awarded by the College of Biological Science Awards Committee on the recommendation of the Plant Biology Council. Application not required. One award of $100 and a plaque.

*Donor(s):* The family of Sharon Marshall.

*Qualification(s):* Student graduating in the Plant Biology major with the highest cumulative average.

*Amount:* 1 award of $100, 1 Plaque.

Shutt Memorial Scholarship [0257]

In honour of Professor D.B. Shutt and Dr. F.T. Shutt. Not tenable with the Upjohn Award. Application not required.

*Donor(s):* Greta M. Shutt, B.Sc. (H.E.)

*Qualification(s):* Awarded in the Winter semester to a student enrolled in the B.SC. Microbiology major. The scholarship will be awarded on the basis of the highest cumulative average achieved over the 6 semester levels of the program.

*Amount:* 1 award of $500.

Society of Chemical Industries Prizes [0333]

Application not required.

*Donor(s):* Society of Chemical Industry.

*Qualification(s):* Students who obtain the highest standing in the final year in each of the B.SC. honours major Chemistry and the B.SC.(Tech.) honours major Applied Pharmaceutical Chemistry.

*Amount:* 2 Engraved plaques.

Society of Management Accountants of Ontario Scholarship [0268]

The scholarship will be awarded at summer convocation. Application not required. One award of $500 and a free course enrolment in the first complete CMA subject enrolled in the Society's program.

*Donor(s):* Society of Management Accountants, Grand River Chapter.

*Qualification(s):* Full-time student graduating from B.Comm., B.A. (minor in Business Administration), or B.SC. (minor in Business Administration), or B.SC./(Agr.) (major in Agriculture Business or Agricultural Economics), or B.SC.(Agric.) (major in Agriculture Business or Agricultural Economics), or B.A. (minor in Business Administration), or B.A. (minor in Business Administration), or B.A. (minor in Business Administration), or B.A. (minor in Business Administration) programs. Student with the highest average in the 2 courses Financial Accounting AGEC*2220 and Intermediate Accounting AGEC*3330.

*Amount:* 1 award of $500, and a free course enrolment in the first complete CMA subject enrolled in the Society's program.

Statistics Graduation Prize [0508]

Awarded at Summer Convocation. Application not required. One award of $250 and a commemorative plaque.

*Donor(s):* College of Physical and Engineering Science

*Qualification(s):* The graduating student who has majored in statistics and who in the past year has graduated from an honours degree program with the highest cumulative average over 80%.

*Amount:* 1 award of $250, 1 Commemorative plaque.

Stephanie Wilken Volunteer Award [0449]

Established by the Wilken family in memory of Stephanie Wilken, BA 1995. Apply to Student Financial Services with letter indicating the kind and extent of volunteer activities at the Wellness Centre by October 1. Selection committee is the Senate Committee on Awards on the recommendation of the Student Wellness Educator at the Wellness Centre.

*Donor(s):* Bev and Darlene Wilken.

*Qualification(s):* Student registered in any undergraduate degree program, who has been a volunteer for at least two semesters at the Wellness Centre. The recipient will be selected on the basis of academic performance in all courses to date and volunteer work at the Wellness Centre.

*Amount:* 1 award of $1,000.
Ted Newton Memorial Scholarship [I0198]

Established in honour of Professor Ted Newton, the founding chair of the Department of Mathematics and Statistics. Awarded in the Fall semester. Application not required.

**Donor(s):** Family, friends and colleagues of Dr. T.D. (Ted) Newton

**Qualification(s):** Student majoring in mathematics or statistics in year 2 (i.e. one who has completed a minimum of 5.0 credits up to a maximum of 9.75 credits) who has the highest average over 80% on a minimum of 4.0 credits in year 1 (i.e., while the first 4.0 to 4.75 credits are in progress). A student may be considered for this award once only.

**Amount:** 1 award of $1,500

The Jack and Lillian MacDonald Scholarship [E0379]

Family, friends, and colleagues of Lillian MacDonald and Dr. Jack MacDonald, Vice-President Academic, of the University of Guelph from 1986 to 1995, have established a scholarship that recognizes their commitment to increasing the accessibility of post-secondary education to aboriginal persons. Apply by letter to Student Financial Services by April 1.

**Donor(s):** Jack and Lillian MacDonald

**Qualification(s):** In the first instance, the award will be given to an entering student coming from the Grand River Polytechnical Institute (GRPI) and who has received the highest cumulative average in the Native University Access Program. If there is no entering student in any one year, the scholarship will be awarded to the in-course student who is a graduate of the GRPI who has the highest cumulative average at the University.

**Amount:** 1 award of $900

**Van Stralen and Van Der Hoeven Memorial Scholarship** [I0296]

Application will be made by nominations signed by 4 currently registered students forwarded to Student Financial Services by April 1. Presentations are made in the Fall semester.

**Donor(s):** Mr. & Mrs. J. Van Stralen & family and Mr. & Mrs. Hans Van Der Hoeven & family

**Qualification(s):** Students that have completed a minimum of 2.0 credits, but not more than 7.5 in the Winter term in any degree program who have obtained a minimum of 70% standing. Selection will be made on the basis of participation in university activities and in the student's home community as well as qualities of leadership, ambition and initiative.

**Amount:** 2 awards of $400

W. Harold Minshall Scholarship [I0451]

Provided by Dr. W.H. Minshall (O.A.C.33). Apply to Student Financial Services by April 1.

**Donor(s):** OAC Alumni Foundation on behalf of Dr. W.H. Minshall

**Qualification(s):** Student enrolled in the Human Kinetics major who has completed 5.0 credits in year 1 (i.e., while the first 4.0 to 4.75 credits are in progress). A student may be considered for this award once. Awarded in the Fall semester. Application not required.

**Amount:** 1 award of $1,000

W.C. Winegard Medal [C0311]

The W.C. Winegard Medal is the most prestigious graduating award of the University of Guelph. One student will be nominated by each College Awards Committee. The Senate Awards Committee will make the final selection and the medal will be awarded at Convocation in June. Application not required.

**Donor(s):** The Board of Governors of the University

**Qualification(s):** Graduating student who excels both academically and in extracurricular activities.

**Amount:** 1 Gold medal

W.H. Boyd Scholarship [I0335]

Established by the friends of Professor W.H. Boyd. Application not required. Awarded in the Winter semester.

**Donor(s):** Douglas L. Woolley, M.D. & B.S.C. Alumni Association

**Qualification(s):** Student enrolled in the Human Kinetics major who has completed Human Anatomy and who has made leadership contributions to the University or outside community.

**Amount:** 1 award of $1,000

W.N. Vaughan Medal [C0299]

Prospective candidates will be nominated by Senators and the medal winner will be chosen by a committee selected by the Striking Committee. The medal will be awarded at Convocation in June. Application not required.

**Donor(s):** Friends of Walter N. Vaughan

**Qualification(s):** Student senator who has high academic standing and who has made a substantial contribution to student life and to the University, particularly through involvement in and commitment to Senate activities.

**Amount:** 1 Medal

Wally Fraser Mathematics Scholarship [I0544]

This scholarship is named in honour of Professor Wally Fraser, a founding member of the Department of Mathematics and Statistics. A student may only be considered for this award once. Awarded in the Fall semester. Application not required.

**Donor(s):** The Department of Mathematics and Statistics and (retired) Professor Dixon More, C.P.E.S

**Qualification(s):** Third year student majoring in mathematics (i.e., one who has completed a minimum of 10.00 credits up to a maximum of 14.75 credits) who has a cumulative average of at least 80%, and the highest average over 80% in a minimum of 4.00 credits in year 2 (i.e. while earning 5.0 to 7.95 credits).

**Amount:** 1 award of $750

Waterloo-Wellington CA Association Award [I0367]


**Donor(s):** Waterloo-Wellington Chartered Accountants Association

**Qualification(s):** Student who achieves the highest academic standing in the course AGEC3330, Intermediate Accounting.

**Amount:** 1 award of $100
### IX. Scholarships and Other Awards, Bachelor of Science

#### Wellington Laboratories Prize in Environmental Chemistry [10308]

**Provided by** Wellington Laboratories. Application not required.

**Donor(s):** Wellington Laboratories

**Qualification(s):** Students registered at the time of presentation in the Winter semester in an honours major program offered by the Department of Chemistry with the highest grade in CHEM*3360 and TOX*3360 Environmental Chemistry and Toxicology in the previous calendar year.

**Amount:** 1 award of $500

#### Wilma Hollywood Memorial Scholarship [10509]

Established by the Department of Psychology, in honour of the late Wilma Hollywood, a long-serving staff member. Application not required.

**Donor(s):** Department of Psychology

**Qualification(s):** Student majoring in Psychology in either the B.A. or B.Sc. program who has achieved the highest cumulative average in the core courses.

**Amount:** 1 award of $200

#### Year 3 Mathematics Scholarship [10506]

Awardsed in the Fall semester. Application not required.

**Donor(s):** The Department of Mathematics and Statistics

**Qualification(s):** Fourth year student majoring in mathematics (i.e., one who has completed a minimum of 15.00 credits up to a maximum of 19.75 credits) who has a cumulative average of at least 80%, and the highest average over 80% in a minimum of 4.00 credits in year 3 (i.e., while earning 10.0 to 14.75 credits). A student may be considered for this award once only.

**Amount:** 1 award of $750

#### In-course Scholarships with Financial Need

<table>
<thead>
<tr>
<th>Scholarship Name</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>3M Canada Scholarships [10564]</td>
<td>Provided by 3M Canada. Apply to Student Financial Services by October 7 with a completed Financial Need Assessment Application.</td>
</tr>
<tr>
<td>Alf and Mary Hales Undergraduate Scholarship in Food Science [14510]</td>
<td>Alf and Mary Hales, with the assistance of Ontario government's OSOTF program have established this scholarship to Food Science students. Apply with a completed Need Assessment Form to Student Financial Services by October 7. ACCESS AWARD</td>
</tr>
<tr>
<td>CBS ACCESS Scholarships [14526]</td>
<td>Established by Alumni and friends of C.B.S., with the assistance of the Ontario government's OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. Not tenable with the Hagen Undergraduate Access Scholarship. ACCESS AWARD</td>
</tr>
<tr>
<td>CPES Dean's Scholarship - ACCESS [14527]</td>
<td>Established by a number of industrial, commercial and public sector corporations with the assistance of the Ontario government's OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. This award may be held once only. ACCESS AWARD</td>
</tr>
<tr>
<td>Earl B. MacNaughton Entrance Scholarships [14172]</td>
<td>Established by friends, faculty, staff, alumni and students of the University to honour Earl B. MacNaughton, former head of the Department of Physics and founding Dean of the College of Physical and Engineering Science, with the assistance of the Ontario government's OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Fall semester. ACCESS AWARD</td>
</tr>
<tr>
<td>Eleanor Morgan &amp; Bill Archibald Scholarships [14540]</td>
<td>The family of Eleanor and Bill Archibald, with the assistance of the Ontario government's OSOTF program, provide this scholarship in memory of their parents. Apply with a completed Need Assessment Form and a letter outlining community involvement to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD</td>
</tr>
<tr>
<td>Erin Demers Memorial Scholarship [10406]</td>
<td>The family and friends of Erin Demers, a first-year student at the University of Guelph who was tragically killed in a car accident in 1996, have established this scholarship in her memory. Apply to Student Financial Services by April 1 with a completed Need Assessment Form, along with one supporting reference letter from a Residence Assistant, Residence Manager, or Residence Officer.</td>
</tr>
<tr>
<td>Euclid-Hitachi Scholarships [14517]</td>
<td>Established by Euclid-Hitachi of Canada Ltd., with the assistance of the Ontario government's OSOTF program, to assist students with financial need to continue their studies as full-time students. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD</td>
</tr>
</tbody>
</table>

### General Statements on Awards

Students with demonstrated financial need registered in any major program in C.P.E.S. in, or beyond, second year. A minimum 80% cumulative average is required. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 1 award of $750

**Qualification(s):** Students registered in Years 3 or 4 of the B.A. or B.Sc. program with demonstrated financial need and high academic achievement.

**Amount:** 2 awards of $1,000

**Donor(s):** Alf and Mary Hales

**Qualification(s):** Student registered in semesters 5 to 8 of the B.Sc. program in Food Science with a demonstrated interest in Meat Science and demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 1 award of $1,000

**Qualification(s):** Student majoring in Psychology in either the B.A. or B.Sc. program who has achieved the highest cumulative average in the core courses.

**Amount:** 1 award of $200

**Donor(s):** Department of Psychology

**Qualification(s):** Fourth year student majoring in mathematics (i.e., one who has completed a minimum of 15.00 credits up to a maximum of 19.75 credits) who has a cumulative average of at least 80%, and the highest average over 80% in a minimum of 4.00 credits in year 3 (i.e., while earning 10.0 to 14.75 credits). A student may be considered for this award once only.

**Amount:** 1 award of $750

**Donor(s):** 3M Canada Company

**Qualification(s):** Students entering Year 4 (i.e. having completed a minimum of 15.0 credits) with demonstrated financial need and high academic achievement.

**Amount:** 2 awards of $1,000

**Donor(s):** Alf and Mary Hales

**Qualification(s):** Student registered in semesters 5 to 8 of the B.Sc. program in Food Science with a demonstrated interest in Meat Science and demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 1 award of $1,000

**Donor(s):** Alumni and friends of CBS

**Qualification(s):** Full-time students beyond semester 4 with demonstrated financial need. Awarded to the students with the highest cumulative averages registered in any major in the College of Biological Science. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 2 awards of $500

**Donor(s):** Wellington Laboratories

**Qualification(s):** Students registered at the time of presentation in the Winter semester in an honours major program offered by the Department of Chemistry with the highest grade in CHEM*3360 and TOX*3360 Environmental Chemistry and Toxicology in the previous calendar year.

**Amount:** 1 award of $500

**Donor(s):** Family and friends of Erin Katrina Demers

**Qualification(s):** A student who has resided in an on-campus residence during the first semester and who has a cumulative average of 70%. This award is payable in the second year (ie completed 5.0 course credits) of study. Preference will be given to students with demonstrated financial need and who have participated significantly in extracurricular activities.

**Amount:** 1 award of $1,000

**Donor(s):** The Family of Eleanor & Bill Archibald

**Qualification(s):** Students registered in any program with a minimum of 5.0 credits who have cumulative 70% average, has demonstrated community involvement, and financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 2 awards of $1,000

**Donor(s):** Friends, faculty, staff, alumni and students of the University

**Qualification(s):** Students with demonstrated financial need registered in any major program in C.P.E.S. in, or beyond, second year. A minimum 80% cumulative average is required. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 1 award of $750

**Donor(s):** The Department of Mathematics and Statistics

**Qualification(s):** Fourth year student majoring in mathematics (i.e., one who has completed a minimum of 15.00 credits up to a maximum of 19.75 credits) who has a cumulative average of at least 80%, and the highest average over 80% in a minimum of 4.00 credits in year 3 (i.e., while earning 10.0 to 14.75 credits). A student may be considered for this award once only.

**Amount:** 1 award of $750

**Donor(s):** 3M Canada Company

**Qualification(s):** Students entering Year 4 (i.e. having completed a minimum of 15.0 credits) with demonstrated financial need and high academic achievement.

**Amount:** 2 awards of $1,000

**Donor(s):** The Family of Eleanor & Bill Archibald

**Qualification(s):** Students currently registered in the final year of an honours program in the College of Physical and Engineering Science with high academic standing, demonstrated financial need, and who have completed a minimum of 15.0 credits. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 2 awards of $1,000

**Donor(s):** Friends, faculty, staff, alumni and students of the University

**Qualification(s):** Students registered at the time of presentation in the Winter semester

**Amount:** 1 award of $1,000

**Donor(s):** Euclid-Hitachi of Canada Ltd.

**Qualification(s):** Students with a minimum cumulative average of 70% with demonstrated need. Awarded to the students with the highest cumulative averages registered in any major in the College of Biological Science. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 1 award of $500

**Donor(s):** Wellington Laboratories

**Qualification(s):** Students registered at the time of presentation in the Winter semester in an honours major program offered by the Department of Chemistry with the highest grade in CHEM*3360 and TOX*3360 Environmental Chemistry and Toxicology in the previous calendar year.
<table>
<thead>
<tr>
<th>Scholarship Name</th>
<th>Amount</th>
<th>Qualification(s)</th>
<th>Donor(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gordon Ashton Scholarship [I4535]</td>
<td>1 award of $500</td>
<td>Students beyond semester 6 with demonstrated financial need. Awarded in the Winter semester. ACCESS AWARD</td>
<td>C. Dixon More</td>
</tr>
<tr>
<td>Graham Family Incentive Scholarship [I4506]</td>
<td>1 award of $5,000</td>
<td>Students entering the fourth year of a four year degree program, maintaining at least 70% program average and demonstrating financial need, who have previously received the Harvey Graham Bursary. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).</td>
<td>Harvey Graham OAC ’39</td>
</tr>
<tr>
<td>Graham, Fraser and Trevor Bosch Scholarships in Chemistry [I4288]</td>
<td>2 awards of $1,500</td>
<td>Outstanding undergraduate students in the B. SC. Chemistry major, or in the B. SC.(Tech.) Applied Pharmaceutical Chemistry program, who have demonstrated financial need. Of the recipients with demonstrated financial need and preference will be given to Year 3 students with the highest cumulative averages in at least three 2000 level chemistry courses taken in Year 2. In the event that there are no qualified candidates in Year 3, students in Year 4 will be considered, based on demonstrated financial need and the highest cumulative averages in at least three 2000 level chemistry courses taken in Year 3. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).</td>
<td>Mr. Martin Bosch of the Guelph Soap Company</td>
</tr>
<tr>
<td>Hagen Undergraduate Scholarship [I4525]</td>
<td>3 awards of $800</td>
<td>Students beyond semester 6 with demonstrated financial need. Awarded to the students with the highest cumulative averages in any major in the College of Biological Science. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).</td>
<td>Rolf C. Hagen</td>
</tr>
<tr>
<td>Jay Majithia Scholarship [I4518]</td>
<td>2 awards of $300</td>
<td>Computer and Information Science students with demonstrated financial need who have a minimum cumulative program average of 70%. Preference will be given to eligible students who are applying for, or participating in, departmental research, including a special project or an independent study option. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).</td>
<td>Mrs. Margaret L. Middleton</td>
</tr>
<tr>
<td>Kathleen and R. Douglas Kennedy Scholarship in CSAHS [I0546]</td>
<td>1 award of $1,000</td>
<td>This scholarship will be awarded to a student in CSAHS with high academic achievement. Preference will be given to students registered in the Department of Family Relations and Applied Nutrition, the School of Hospitality and Tourism Management, or the Department of Marketing and Consumer Studies and to students with demonstrated financial need.</td>
<td>Mrs. Kathleen Kennedy and the late Mr. R. Douglas Kennedy</td>
</tr>
<tr>
<td>Keith Ronald Undergraduate Scholarship [I4532]</td>
<td>1 award of $1,500</td>
<td>Students with demonstrated financial need who are in good academic standing and who have demonstrated leadership. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).</td>
<td>Friends and Colleagues of Professor Keith Ronald</td>
</tr>
<tr>
<td>MacNaughton ACCESS Scholarship in Physics [I4523]</td>
<td>4 awards of $1,000</td>
<td>Students with demonstrated financial need who are in good academic standing and who have demonstrated leadership. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).</td>
<td>Earl B. MacNaughton and faculty, staff and alumni of the Department of Physics</td>
</tr>
<tr>
<td>OAC ’52 Scholarships [I4538]</td>
<td>5 awards of $1,000</td>
<td>Offered by the class of O.A.C.’52, with the assistance of the Ontario government's OSOTF program. Apply by letter highlighting involvement in leadership and community activities and/or university life along with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD</td>
<td>OAC ’52</td>
</tr>
</tbody>
</table>
R. Douglas and Kathleen Kennedy Scholarship in OAC [I0547]

Douglas (OAC '39) and Kathleen (MAC '39) Kennedy met at a “hop” on campus in 1937 and later married. They established this scholarship to celebrate their time on campus and their 62 years of marriage. Apply to Student Financial Services by October 7 with a completed Need Assessment Form.

**Donor(s):** Mrs. Kathleen Kennedy and the late Mr. R. Douglas Kennedy  
**Qualification(s):** This scholarship will be awarded to a student in OAC with high academic achievement and demonstrated financial need.

**Amount:** 1 award of $1,000

**Stephen Safe Scholarships in Toxicology [I4528]**  

Established by Wellington Laboratories, with the assistance of the Ontario government’s OSOTF program to honour the achievements of Prof. Stephen Safe, a former faculty member at the University of Guelph. One letter of support should be provided from a faculty member who is not a member of the Selection Committee. Apply, including a reference letter and a completed Need Assessment Form, to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

**Donor(s):** Mr. Brock Chittim  
**Qualification(s):** Students with demonstrated financial need in an undergraduate toxicology program at, or beyond, semester 5. Applicants should have achieved a minimum 77% cumulative average in the science courses of the previous two academic semesters. Previous recipients of the award may reapply in subsequent years, but preference will be given to those applicants who have not previously held this award. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 2 awards of $1,000

**Tara Lynn Giuliani Memorial Award [I0375]**  

In memory of Tara Lynn Giuliani, a bright young woman, who did not let her blindness stand in the way of her studies at the University of Guelph. Apply to the Centre for Students with Disabilities by November 25.

**Donor(s):** The Giuliani Family  
**Qualification(s):** Most academically promising applicant with a demonstrated disability and having financial need.

**Amount:** 1 award of $500

**Walter and Marion MacDougall Scholarship [I4530]**  

Established by the family of Walter and Marian MacDougall on the 50th wedding anniversary of their parents, in recognition of their gift of life-long learning to their five children, with the assistance of the Ontario government’s OSOTF program. Apply to Student Financial Services by October 7 with a completed Need Assessment Form and a résumé that includes evidence of demonstrated leadership. ACCESS AWARD

**Donor(s):** Mr. Brock Chittim, DVM  
**Qualification(s):** Students demonstrating financial need with a minimum of 10.0 credits and less than 15.0 credits and who are in the following programs/majors/minors: B.A.SC., B.S.C.(Agr.), B.S.C.(Env.), B.S.C.(Food Science, Animal Biology, Nutrition, or Forest Science), or D.V.M. are eligible. Students will have demonstrated leadership and a commitment to excellence and a minimum cumulative average of 70%. Recipients will be enrolled in a program involved in food supply or utilization, farmland conservation or woodlot management. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 2 awards of $1,000

**Wellington Laboratories Scholarship [I4308]**  

Wellington Laboratories, with the assistance of the Ontario government’s OSOTF program, established this award through an endowment provided by Mr. Brock Chittim of Wellington Laboratories. Highly qualified students will be notified by the Chair of the Department of Chemistry and the Department Awards Committee to complete a Need Assessment Form and submit to Student Financial Services by February 1. Awarded in the Winter semester. ACCESS AWARD

**Donor(s):** Mr. Brock Chittim of Wellington Laboratories  
**Qualification(s):** Students that have completed a minimum of 15.0 course credits of an honours major program offered by the Department of Chemistry. Student with demonstrated financial need and the highest cumulative averages in at least three 3000 level chemistry courses taken in semesters 5 or 6. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 2 awards of $1,000

**Yeandle Family In-Course Scholarships [I3546]**  

Provided by the Estate of Audrey Yeandle, a Mac’25 graduate and life-long supporter of the University, with the assistance of the Ontario government’s OSOTF program. Apply to Student Financial Services by October 7 with a completed Need Assessment Form. ACCESS AWARD

**Donor(s):** The Estate of Audrey Yeandle  
**Qualification(s):** Full-time undergraduate students registered in each of the eight academic units and CIDS within the College of Social and Applied Human Sciences. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards). Awards will be made on the basis of financial need and academic achievement.

**Amount:** Several awards up to $2,000

**In-course Awards with Financial Need**

**Class of OAC ’36 Bursaries [I3501]**

Established by the Class of OAC ‘36 with the assistance of the Ontario government's OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

**Donor(s):** Class of 1936  
**Qualification(s):** An OAC degree student enrolled in any degree program who has demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 2 awards of $500

**Archie and Isabelle (Cook) Rintoul CASHA Bursary [I3018]**

Offered by Archie and Isabelle (Cook) Rintoul of OAC ‘26 and MAC ‘27 respectively. Apply with a completed Need Assessment Form to Student Financial Services. Two awards of $500 (one in each of the two colleges).

**Donor(s):** Archie and Isabelle (Cook) Rintoul  
**Qualification(s):** Students enrolled in the B.A.SC. program or the Hotel and Food Administration, Housing and Real Estate Management or Marketing Management majors of the B.COMM. program and the department of Environmental Biology in the B.S.C., B.S.C.(Agr.) or the B.S.C.(Env.) degree programs. Students who have completed semester 4 (10.00 credits) and who have demonstrated financial need are eligible.

**Amount:** 2 awards of $500

**Archie and Isabelle (Cook) (Cook) Rintoul OAC Bursary [I3060]**

Offered by Archie and Isabelle (Cook) Rintoul of OAC ‘26 and MAC ‘27 respectively. Apply with a completed Need Assessment Form to Student Financial Services. Two awards of $500 (one in each of the two colleges).

**Donor(s):** Archie and Isabelle (Cook) Rintoul  
**Qualification(s):** Students enrolled in the B.A.SC. program or the Hotel and Food Administration, Housing and Real Estate Management or Marketing Management majors of the B.COMM. program and the department of Environmental Biology in the B.S.C., B.S.C.(Agr.) or the B.S.C.(Env.) degree programs. Students who have completed semester 4 (10.00 credits) and who have demonstrated financial need are eligible.

**Amount:** 2 awards of $500

**Bette Stephenson Accessibility Bursary [I3054]**

In recognition of the work of Dr. Bette Stephenson in supporting students with learning disabilities, the University of Guelph offers bursaries to students who have demonstrated financial need and who have a learning disability. These bursaries will be used to offset the costs of a required assessment, or the purchase of a computer that is required to support their learning needs. Apply to Student Financial Services, with a completed Need Assessment Form by October 7. Awarded in the Winter semester.

**Donor(s):** University of Guelph  
**Qualification(s):** Undergraduate students who have demonstrated financial need and who have a learning disability. Students must be full-time (as defined by OSAP regulations) and Canadian citizens or permanent residents.

**Amount:** 3 awards to a maximum of $1,500

**Brinton Partners Inc. Bursaries [I3526]**

Brinton Partners Inc., with the assistance of the Ontario government’s OSOTF program, has established these bursaries. Apply with a completed need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

**Donor(s):** Brinton Partners Inc.  
**Qualification(s):** Students with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 2 awards of $1,500
### Burnbrae Farms Bursaries [I3525]
Established by Burnbrae Farms, with the assistance of the Ontario government's OSOTF program to assist students with financial need to continue their studies as full-time students. Apply with a completed need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

**Donor(s):** Burnbrae Farms  
**Qualification(s):** Full-time students with demonstrated financial need. Preference will be given to students with a demonstrated interest in poultry science. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 2 awards of $1,500

### Catherine and Brian Berg Memorial Bursary [I3542]
Established by the families of Brian and Cathy Berg, with the assistance of the Ontario government's OSOTF program. Apply by completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

**Donor(s):** Families of Cathy and Brian Berg  
**Qualification(s):** C.B.S. student with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 1 award of $500

### Class of '72: 25th Reunion Bursaries [I3512]
Established by the Class of '72: 25th Reunion Fund with the assistance of the Ontario government's OSOTF program to support students who wish to study full-time. Apply to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

**Donor(s):** Class of '72: 25th Reunion  
**Qualification(s):** Full-time students with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 3 awards of $1,000

### Class of OAC '33 Bursaries [I3531]
Established by the class of OAC '33 on the occasion of their 65th Anniversary, with the assistance of the Ontario government's OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

**Donor(s):** Class of 1933 (in honour of the late Prof. W.J. Squirrel)  
**Qualification(s):** OAC undergraduate students with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 3 awards of $500

### Elizabeth Burton Bursaries [I3503]
Mrs. Elizabeth Burton, with the assistance of the Ontario government's OSOTF program, provides bursaries to students with demonstrated financial need. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD. A number of awards totalling $2,900.

**Donor(s):** Mrs. Elizabeth Burton  
**Qualification(s):** Students in second, third or fourth year with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** Several awards of $2,900

### Food Science Co-op Bursaries [I3509]
Established by the Knechtel Scholarship fund and the Toronto section of CIFST, with the assistance of the Ontario government's OSOTF program, to assist with Co-op fees. Apply with a completed Need Assessment Form to Student Financial Services by October 7. ACCESS AWARD

**Donor(s):** Knechtel Scholarship Fund  
**Qualification(s):** Students registered in the Food Science Co-op program in semester 1 and confirmed registration in the Food Science Co-op program in semester 2. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 5 awards of $850

### George and Margaret J. Miles Memorial Bursary [I3544]
Established by the family to honour the memory of the parents, George and Margaret J. Miles, life long supporters of education. Apply with a completed Need Assessment Form and a letter describing involvement in extra-curricular activities to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

**Donor(s):** Established by the Miles Family  
**Qualification(s):** All undergraduate arts and social science students with demonstrated financial need who are in or beyond semester 3 and have at least a 75% cumulative average in all courses completed to date are eligible to apply. Preference will be given to students who participate and provide leadership in extra-curricular or community activities (examples include student government, charitable organization, volunteer work, Big Brothers/Sisters, contributions to school and/or community, etc.). Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 1 award of $1,500

### Gordon B. Henry Bursaries in Food Science [I3540]
Established in memory of O.A.C. graduate '34 Gordon B. Henry by his family and associates with the assistance of the Ontario government's OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD. Varying number of awards totalling $1,000.

**Donor(s):** Gordon B. Henry, OAC ‘34  
**Qualification(s):** Undergraduate and graduate students registered in Food Science with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** Several awards of $1,000

### Gryphon Investment Council Bursaries [I3513]
Established by Gryphon Investment Counsel, with the assistance of the Ontario government's OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

**Donor(s):** Gryphon Investment Council Inc.  
**Qualification(s):** Full-time students with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 2 awards of $1,500
International Emergency Medical Aid Assistance [I3059]
The University of Guelph provides support to International undergraduate students that are faced with unexpected, or unforeseen medical shortfalls due to a medical issue not covered by UHIP or the Student Dental/Medical insurance plans. Students should apply to the International Student Advisor, in the Centre for International Programs office, by completing an International Student Financial Need Assessment Form and submitting documentation to support the medical issue. These bursaries are awarded on an on-going basis.

Donor(s): University of Guelph
Qualification(s): Any International student registered in a degree program at the University of Guelph with a minimum registration of 1.50 course credits.
Amount: Several awards of varying amounts.

Margaret Rich Bursary [I3055]
Established by the Jean Rich Foundation to assist students with an academic interest in animal nutrition. Apply by October 7 with a completed Need Assessment Form and a letter indicating interest in animal nutrition and in being considered for this prestigious award, including evidence of at least 2.00 credits completed in nutrition courses.

Donor(s): Jean Rich Foundation
Qualification(s): Undergraduate Honours B.Sc. students in any college, who have completed more than 10.00 credits may apply. The University Bursary Committee will use financial need assessment and satisfactory academic standing for continuation in the program of study to determine the recipient.
Amount: 1 award of $5,000.

Leroux Bursaries [I3535]
Established by Mr. Hector Leroux, O.A.C.’44, with the assistance of the Ontario government’s OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services by October 7. ACCESS AWARD

Donor(s): Mr. J.H. Leroux
Qualification(s): O.A.C. degree students in the B.Sc.(Agr.), B.Sc., B.Comm. or B.Sc.(Env.) programs with demonstrated financial need. Satisfactory academic standing is required. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).
Amount: Several awards of $5,000.

Howard and Myrtle Rogers Bursaries [I3537]
Provided by the Estate of Howard and Myrtle Rogers, with the assistance of the Ontario government’s OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester.

Donor(s): Mr. T.K.C. Karr, O.A.C. ’32
Qualification(s): O.A.C. students with demonstrated financial need
Amount: Several varies.

Lady Glencora Bursaries [I2586]
Established by the Rathlyn Foundation, with the assistance of the Ontario government’s OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services by October 7. ACCESS AWARD

Donor(s): The Rathlyn Foundation
Qualification(s): Undergraduate students in the D.V.M. program, students registered in the Faculty of Graduate Studies and enrolled in a department of the Ontario Veterinary College, and undergraduate students in the honours B.Sc. (Bio-Med) program who have demonstrated financial need.
Amount: Various awards totaling $5,000.

Gwen Karr Memorial Bursary [I3101]
Mr. T.K.C. Karr, O.A.C. ’32, has provided an endowment fund to assist students in a degree or diploma program of the Ontario Agricultural College. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester.

Donor(s): Mr. T.K.C. Karr, OAC ’32
Qualification(s): O.A.C. students with demonstrated financial need
Amount: Several varies.

Irvine and Grace Black Memorial Bursary [I3051]
Established in memory of Irvine and Grace Black, by friends and family to recognize their many contributions to young people. Irvine, a well-known sheep breeder, was a judge at College Royal and the Royal Winter Fair for over fifty years, and Grace was active in the Women’s Institute and the Fergus Fall Fair. Apply to Student Financial Services with a completed Need Assessment Form and a letter outlining involvement in the 4-H Club and/or a Women’s Institute.

Donor(s): Family and friends of Irvine and Grace Black
Qualification(s): Full-time undergraduate students registered in any degree program with demonstrated financial need. Preference will be given to applicants who are, or have been, active in the 4-H Club and/or a Women’s Institute.
Amount: 1 award of $500.

L. George and Margaret Baker Bursary [I3052]
Robert Jack and M. Ismay Martin provide this bursary in memory of Ismay’s parents, George and Margaret Baker in recognition of the contributions to society. This award is not tenable with other Senate Awards. Apply by letter with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. One or more awards totalling $5,000.

Donor(s): Robert Jack and M. Ismay Martin
Qualification(s): Students who resided in Canada prior to their initial registration at the University of Guelph and who are in semesters 3 or 4 of the Food Science program are eligible. The award will be given to the student with an interest in functional foods and secondarily, to those who come from a rural community with greatest financial need.
Amount: Various awards totalling $5,000.

Guelph Compassionate Health Bursary [I3061]
This bursary has been established and approved by the Student Health and Dental Committee to assist students facing unforeseen health needs above and beyond the benefits offered through the mandatory University of Guelph student health plan. Submit a Financial Need Assessment application accompanied by the physician recommendation, cost estimates and physician contact information to the Awards Officer, Student Financial Services. The application will be reviewed throughout the semester to handle emergencies immediately.

Donor(s): Student Health and Dental Plan Reserve
Qualification(s): All currently registered students at the University of Guelph that are covered under the University of Guelph mandatory Student Health Plan. The student must require treatment for a condition not currently or completely covered by the Student Health Plan.
Amount: Several varies to a maximum $1,500.
### OAC Alumni Foundation Access Bursaries [I3524]

Established by the estate of Mary I. Whitelock, a friend of the University, with the assistance of the Ontario government’s OSOTF program, to assist students who wish to study full-time but who need financial support to do so. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

**Donor(s):** Estate of Mary I. Whitelock  
**Qualification(s):** All undergraduate, graduate or OAC diploma students with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 13 awards of $2,000

### Masterfeeds Bursaries [I3514]

Established by Masterfeeds and the O.A.C. Alumni Foundation, with the assistance of the Ontario government’s OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

**Donor(s):** Masterfeeds  
**Qualification(s):** O.A.C. students in B.SC.(Agr.) Animal Science or B.SC. Animal Biology majors who have demonstrated financial need and, at the time of application, have a cumulative average of 60%. Students may receive one or two bursaries annually. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 4 awards of $500

### O.A.C. ’55 Access Bursaries [I3517]

Provided by the class of O.A.C.’55 with the assistance of the Ontario government’s OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

**Donor(s):** O.A.C. Class of ’55  
**Qualification(s):** Students at any semester level in an O.A.C. degree program or students enrolled in the B.SC.(Eng.) program with demonstrated financial need and a 60% minimum cumulative average. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statement on Awards).

**Amount:** Several awards of $500

### OAC ’38 Lloyd Minshall Bursaries [I3529]

Established by OAC ’38 Alumni, with the assistance of the Ontario government’s OSOTF program, to recognize the many contributions of Lloyd Minshall to his classmates and to OAC. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

**Donor(s):** OAC ’38 Alumni  
**Qualification(s):** OAC undergraduate students with demonstrated financial need in semesters 5, 6, 7 or 8 and OAC graduate students are eligible to apply. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 7 awards of $1,000

### OAC ’57 Bursaries [I3518]

Provided by the Class of OAC ’57 with the assistance of the Ontario government’s OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

**Donor(s):** OAC ’57 and the OAC Alumni Foundation  
**Qualification(s):** OAC undergraduate degree students with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 5 awards of $1,000

### OAC Alumni Foundation Access Bursaries [I3533]

Provided by the OAC Alumni Foundation, with the assistance of the Ontario government’s OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

**Donor(s):** OAC Alumni Foundation  
**Qualification(s):** OAC undergraduate students with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 4 awards of $500

### Ontario Cattlemen’s Association Degree Bursary [I3506]

Provided by the Ontario Cattlemen’s Association and the O.A.C. Alumni Foundation with the assistance of the Ontario government’s OSOTF program. Apply by letter with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

**Donor(s):** Ontario Cattlemen’s Association  
**Qualification(s):** Students with demonstrated financial need who are enrolled in semester 5 or above in the B.SC.(Agr.), B.Comm.(Agricultural Business), B.Sc. (Animal Biology) or B.SC. (Food Science) program and have a 60% minimum cumulative average. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 4 awards of $500

### Ontario Co-operatives R.P. Forshaw Bursary [I3013]

The Co-operatives, Credit Unions, friends and associates of Prof. R. P. Forshaw have established this bursary. Apply to Student Financial Services with a completed Need Assessment Form by October 7. Awarded in the Winter semester.

**Donor(s):** The Co-operatives, Credit Unions, friends and associates of Prof. R.P. Forshaw  
**Qualification(s):** Undergraduate students who have financial need. Preference may be given to candidates who have been or are members of a co-operative or credit union.

**Amount:** 1 award of $400

### Ontario Federation of Agriculture Bursaries [I3520]

Provided by the Ontario Federation of Agriculture and the O.A.C. Alumni Foundation with the assistance of the Ontario government’s OSOTF program. Apply with a letter and a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

**Donor(s):** Ontario Federation of Agriculture  
**Qualification(s):** O.A.C. students with demonstrated financial need enrolled in the B.SC.(Agr.), B.Comm., B.Sc. or B.Sc.(Env.) programs. Preference will be given to students from farm families who have participated in 4H and/or rural community activities. A student may receive up to three bursaries annually ($1,500). Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 12 awards of $500

### Ontario Grape Growers Bursary [I3033]

Offered by the Ontario Grape Growers Action Committee. Apply to Student Financial Services with a completed Need Assessment Form by October 7. Awarded in the Winter semester.

**Donor(s):** The Ontario Grape Growers Action Committee  
**Qualification(s):** Students with good academic standing in semesters 3 to 6 of a degree program or semesters 3 to 4 of a diploma program administered by O.A.C., and demonstrated need of financial assistance.

**Amount:** Several of various amounts

### Robb Travel Grants [T3028]

These travel grants have been provided in recognition of her love of agriculture, by the estate of Martha Robb, Paris, Ontario. Apply to the Dean, O.A.C. by April 15. Varying amounts (80% of the travel costs will be covered up to $750 per student).

**Donor(s):** The estate of Martha Robb  
**Qualification(s):** O.A.C. students who are attending another university on a Letter of Permission.

**Amount:** Several varies

### Robert Auger Humanitarian Bursary [I3058]

This award, of up to $500, has been established through the generosity of staff in the Office of Registrarial Services, family and friends of Robert Auger, a former Associate Registrar at the University of Guelph. It is intended as an emergency fund to assist students who unexpectedly find themselves in difficult financial circumstances, to provide grocery, and textbook vouchers.

**Donor(s):** Office of Registrarial Services  
**Qualification(s):** Students who require assistance through this fund should apply in confidence to the Assistant Registrar, Financial Aid, Student Financial Services.

**Amount:** Several awards of $500
### University of Guelph Child Care Bursaries [I3053]

Established by Scotiabank, with the assistance of the Ontario government's OSOTF program, to assist students with financial need to continue their studies as full-time students. Distributed in the Winter semester. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. **ACCESS AWARD**

- **Donor(s):** Scotiabank  
- **Qualification(s):** Full-time students with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).  
- **Amount:** 2 awards of $1,500

### University of Guelph Access Bursaries [I3522]

Provided by alumni and friends of the University, with the assistance of the Ontario government's OSOTF program, to support undergraduate, graduate or OAC (Guelph) diploma students who wish to study full-time but who need financial support to do so. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. **ACCESS AWARD.** Variable amounts from $500 to $2,000

- **Donor(s):** Alumni and Friend of the University of Guelph  
- **Qualification(s):** Full-time students with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).  
- **Amount:** Several awards of $500, Several awards of $2,000

### University of Guelph Undergraduate In-Course Bursaries (NON OSAP TR) [I3047]

Established by the University of Guelph Alumni Association, with the assistance of the Ontario government's OSOTF program, to support students who are not eligible for provincial and/or federal assistance programs who are facing unexpected, or unforeseen financial shortfalls while registered on campus. Students should apply to Benny Quay, in the Centre of International Programs office by October 7. Awarded in the Winter semester. **ACCESS AWARD**

- **Donor(s):** University of Guelph Alumni Association  
- **Qualification(s):** Full-time undergraduate and graduate students who are not eligible for provincial and/or federal assistance programs who are facing unexpected, or unforeseen financial shortfalls while registered on campus.  
- **Amount:** Several awards of varying amount to a maximum of $1,000

### University of Guelph Child Care Bursaries [I3053]

In order to provide accessible child care to students with (a) child(ren), the University of Guelph offers bursaries to students who have demonstrated financial need. Apply to Student Financial Services, with a completed Need Assessment Form by October 7. Awarded in the Winter semester. A number of awards of between $500 and $2,000.

- **Donor(s):** University of Guelph  
- **Qualification(s):** Students, supporting (a) child(ren) who demonstrate greatest financial need, to offset the costs of child care. To be eligible, undergraduate students must be full-time (as defined by OSAP regulations) and Canadian citizens or permanent residents with demonstrated financial need.  
- **Amount:** Several awards of $500, Several awards of $2,000

### University of Guelph International Bursary [I3048]

The University of Guelph provides support to International undergraduate students that are faced with unexpected, or unforeseen financial shortfalls while registered on campus. Students should apply to Benny Quay, in the Centre of International Programs office by completing an International Student Financial Need Assessment Form. These bursaries are awarded on an on-going basis.

- **Donor(s):** University of Guelph  
- **Qualification(s):** Any International student registered in a degree program at the University of Guelph with a minimum registration of 1.50 course credits.  
- **Amount:** Several varies

### University of Guelph Undergraduate In-Course Bursaries (MET-TR-UG) [I3037]

The University of Guelph offers in-course bursaries to students who have demonstrated financial need. Apply to Student Financial Services, with a completed Need Assessment Form by October 7. Awarded in the Winter semester.

- **Donor(s):** University of Guelph  
- **Qualification(s):** Undergraduate students registered for full-time studies (as defined by OSAP) in a degree program with demonstrated financial need and a minimum of 2.0 course credits completed.  
- **Amount:** Several awards ranging in value from $100 to $3,000

### University of Guelph Undergraduate In-Course Bursaries (NON OSAP TR) [I3047]

The University of Guelph offers in-course bursaries to students who have demonstrated financial need. Apply to Student Financial Services, with a completed Need Assessment Form by October 7. Awarded in the Winter semester.

- **Donor(s):** University of Guelph  
- **Qualification(s):** Undergraduate students registered for full-time studies (as defined by OSAP) in a degree program with demonstrated financial need and a minimum of 2.0 course credits completed.  
- **Amount:** Several awards to a maximum of $800

### University Police Bursaries [I3019]

The University Police have made available a number of bursaries. Apply to Student Financial Services with a completed Need Assessment Form by October 7.

- **Donor(s):** The University Police  
- **Qualification(s):** Full-time undergraduate and graduate students who have financial need.  
- **Amount:** Several varies

### University Student Assistance Program [I3057]

These bursaries have been established and approved by the University of Guelph to assist undergraduate and University of Guelph campus diploma students in financial need. Apply to Student Financial Services with a completed Need Assessment Form by October 7. Typically, awarded in the Winter semester.

- **Donor(s):** University of Guelph  
- **Qualification(s):** Full-time undergraduate students registered in any degree program with demonstrated financial need. Preference will be given to students who are not eligible for provincial and/or federal assistance programs such as Ontario Student Assistance Program (OSAP) and/or Canada Student Loan Program (CSLP).  
- **Amount:** Several awards of varying amount to a maximum of $1,000

### In-course Travel Grants

#### A.W. Archibald Memorial Travel Grant [I4541]

Mr. A.W. Archibald, OAC ‘33 with the assistance of the Ontario government's OSOTF program, provide these travel grants to students who plan to travel for a semester abroad or to attend other schools outside of Canada for workshops or other academic related purposes. Apply to Student Financial Services with a letter outlining proposed travel plans and academic purpose accompanied by a letter of support from a faculty member or student advisor, a travel budget, and a completed Financial Need Assessment Form by October 7. **ACCESS AWARD.**

- **Donor(s):** A.W. Archibald, OAC ‘33  
- **Qualification(s):** Undergraduate students in any OAC program with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).  
- **Amount:** Several up to $1000
Arthur D. Latornell Undergraduate Travel Grants [T0058]
An endowment fund established in memory of Arthur D. Latornell, OAC '50, who had a life-long professional career in resource management and conservation and a special interest in helping young people. The funds are given to provide twenty-five travel grants. These travel grants are offered to assist students in attending conferences, courses, co-op student exchanges or study abroad programs in these areas. Students may receive this grant only once. Apply to Student Financial Services. Deadline dates are June 1 for Fall travel, October 1 for Winter travel, and February 1 for Summer travel. Up to 80% of estimated travel costs to a maximum of $1,000.
Donor(s): The Estate of Arthur D. Latornell
Qualification(s): Students in semester 3 and above. Students must have at least a 70% average and a primary area of interest related to natural resources management, environmental science, conservation, soil science and/or rural development. Students will be asked to submit a one-page review of their travel experience, including the role the travel grant played, to the University after completion of the travel.
Amount: several up to a maximum of $1000

Canadian Friends of the Hebrew University in Jerusalem Travel Bursary [T4532]
The Canadian Friends of the Hebrew University of Jerusalem, with the assistance of the Ontario government's OSOTF program, have established these travel scholarships to assist students study at the Hebrew University of Jerusalem. Apply by letter with a completed Need Assessment Form to Student Financial Services by May 1. ACCESS AWARD. Up to three awards totalling $7500.
Donor(s): Canadian Friends of the Hebrew University in Jerusalem
Qualification(s): Undergraduate degree students in either the second or third year of study, Masters students in the first year of study, and Doctoral students in the first three years of study are eligible to be considered. Applicants must provide documentation that they have approval from the Hebrew University of Jerusalem (i) to take courses and (ii) for the period of the visit. Students must also arrange appropriate University of Guelph approvals for a "Letter of Permission" prior to applying. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).
Amount: 3 Awards with varying amounts

Massey Fund Travel Scholarships [T0417]
Travel scholarships available from the Massey Fund. Not tenable with other awards that support travel costs. Apply by letter outlining the study abroad/exchange program and travel costs to the OAC Dean's Office by April 15.
Donor(s): OAC Awards Committee
Qualification(s): OAC undergraduate students who are participating in an approved study abroad or exchange program outside Canada. Academic standing in the last two full-time semesters or equivalent will be used to determine recipients.
Amount: 1 award of $750

OAC '47 Travel Bursaries [T3505]
Provided by OAC '47 on the occasion of its 50th anniversary and with the assistance of the Ontario government's OSOTF program. Apply by letter with a completed Travel Award Application and a Need Assessment Form for Travel awards to Student Financial Services by October 1, January 1 or June 1. ACCESS AWARD
Donor(s): OAC '47
Qualification(s): OAC undergraduate students who have demonstrated financial need and who are participating in a study abroad program for academic credit at an approved institution. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).
Amount: 3 awards of $600

Physics Travel Scholarship [T0400]
This award is given annually to assist students with travel and/or housing costs associated with attending a semester or more of academic study or co-operative work experience at a recognized university outside Canada. Depending on availability of funds, more than one recipient may be selected for this award. Applications must be accompanied by a one-page description of the planned travel, including budget, to the Chair of the Department of Physics at least two months prior to departure.
Donor(s): Department of Physics
Qualification(s): Student who has completed at least semester 4 of one of the majors in the Physics program with a cumulative average of 80% or greater, and who has obtained a Letter of Permission to attend the University abroad.
Amount: 1 award of $500

Richard and Sophia Hungerford Undergraduate Travel Scholarships [T4508]
The estate of Richard and Sophia Hungerford, with the assistance of the Ontario government's OSOTF program, has established an endowment to provide travel scholarships to undergraduate students with demonstrated financial need who wish to study in developing countries, or attend conferences on development. Apply to Student Financial Services with a description of the intended travel, an estimate of the travel costs and a completed Need Assessment Form at least one month prior to departure. Deadline dates are June 1 for Fall travel, October 1 for Winter travel, and February 1 for Summer travel. ACCESS AWARD.
Donor(s): The Estate of Richard Hungerford
Qualification(s): Registered undergraduate students with demonstrated financial need who have at least a 70% cumulative average in the last 2 semesters of full-time equivalent study are eligible. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).
Amount: Several awards of varying amounts to a maximum of $1,000

Roderick Long International Travel Grant [T0360]
Offered in memory of the late Roderick Long, O.A.C.'54. Up to eighty percent of the travel costs associated with the study outside of Canada program will be covered up to a maximum of $1,000 per student. Application by letter should be made to the Dean O.A.C. by April 15, and include a description of the study abroad program. Travel grant (or grants) totalling $1,500.
Donor(s): Mr. Roderick W. Long
Qualification(s): O.A.C. undergraduate student who is studying outside of Canada on an approved program for one or more semesters
Amount: Several awards of $1,500
<table>
<thead>
<tr>
<th>University of Guelph Travel Scholarships [T0421]</th>
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<tbody>
<tr>
<td>The University of Guelph, through the sale of Guelph London House, has established an endowment to provide travel scholarships to undergraduate and graduate students who wish to study outside of Canada but need financial support to do so. A total of $35,000 is available in the fund. Apply to Student Financial Services with a completed Travel Grant Application and Financial Need Assessment Form by October 1 for Winter travel, February 1 for Spring travel and June 1 for Fall travel.</td>
</tr>
<tr>
<td><strong>Donor(s):</strong> University of Guelph</td>
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<tr>
<td><strong>Qualification(s):</strong> Registered undergraduate and graduate students that have completed 5.0 credits with demonstrated financial need who have a minimum 70% cumulative average in the last two semesters of full-time equivalent study are eligible to apply. The value of the award will depend on the assessed financial need. The scholarship can cover additional costs of travelling outside of Canada including: airfare, administrative costs, and differential costs of accommodation.</td>
</tr>
<tr>
<td><strong>Amount:</strong> Several up to $1,000</td>
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</tbody>
</table>
Bachelor of Science in Agriculture

Please refer to the General Statement on Awards for:

- Award Eligibility
- ACCESS Awards Eligibility
- Ontario Student Opportunity Trust Fund (OSOTF) Program
- How Awards are Paid

The University reserves the right to amend awards subject to the availability of funds.

Entrance Scholarships

Amos & William Lowe Memorial Scholarship [E0158]
Endowed by the late William B. Lowe of Fort Francis, Ontario. Preference will be given first to eligible students from the district of Rainy River, then from the district of Kenora or Thunder Bay, and finally from the remaining districts of Northern Ontario. Application not required. Two awards of $1,250 paid in two installments of $625.

Donor(s): William B. Lowe and Amos Edgar Lowe
Qualification(s): Student entering any of the undergraduate degree programs of the Ontario Agricultural College.
Amount: 2 awards of $1,250

Angelo and Frank Agro Undergraduate Scholarship [E0520]
Provided by the Agro Scholarship Fund. Apply by April 1 to Student Financial Services, including a covering letter describing your activities within 4H (details of 4H club membership, creativity in support of 4H activities, participation in activities and events, volunteer leadership roles, etc.) and a letter of reference from a 4H club official attesting to your involvement. $4,000 ($1,000 annually for four years).

Donor(s): The Frank Agro Estate
Qualification(s): Full-time students entering semester 1 who have attained a minimum 80% admission average in their graduating year from high school. The scholarship will be awarded to the eligible student demonstrating the greatest past or continuing involvement with 4H activities. Recipients must maintain full-time studies and at least a 70% program average each year for continuation of the award.
Amount: 1 award of $4,000

Board of Governors’ Scholarships [E0317]
The scholarship will be paid in eight equal installments with the first and second payments payable shortly after registration in semesters 1 and 2. The 3rd to 8th payments are contingent upon obtaining a minimum average of 80% over the previous two semesters of full-time study. Students who fail to qualify for a payment may re-qualify by subsequently obtaining an 80% or better average over the previous two semesters of full-time study. Application not required. Twenty-five awards of $8,000 ($2,000 annually for 4 years).

Donor(s): Board of Governors
Qualification(s): Outstanding students entering semester 1
Amount: 25 awards of $8,000

Elite Swine Entrance Scholarship [E0532]
This award is provided by Elite Swine Inc. to assist students entering an OAC undergraduate Program. High schools will forward nominations to the OAC Awards Committee by September 15.

Donor(s): Elite Swine Inc.
Qualification(s): High school graduates who have applied to OAC undergraduate programs, based on admission average, contributions to their schools and communities and on their potential to become leaders in society. Preference will be given to students with a strong interest in animal science, particularly swine production.
Amount: 5 awards of $1,000

Gordon W. Innes Scholarship [E0140]
Established by the Gordon W. "Sparky" Innes Scholarship Fund Committee of the Woodstock Agricultural Society. Application not required.

Donor(s): Gordon W. 'Sparky' Innes Scholarship Fund Committee of the Woodstock Agricultural Society
Qualification(s): Student from Oxford County with the highest admission average.
Amount: 1 award of $1,400

Harold A. Kopas Memorial Entrance Award [E0152]
The award is restricted to students who have completed their secondary school education within the County of Wellington or Waterloo Region. Students should complete the online Entrance Financial Need Assessment application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student). Deadline to submit the application is May 1. One award of $6,200 ($2,000 in year 1 and $1,400 annually for 3 years).

Donor(s): The Harold A. Kopas Charitable Foundation
Qualification(s): Student who has demonstrated financial need, together with a minimum average of 70% entering the B.SC.(Agr.) program. Subsequent payments are dependent on the student maintaining a 70% cumulative average, demonstrating continuing financial need and continuing in the B.SC.(Agr.) or D.V.M. program.
Amount: 1 award of $6,200

International Student Entrance Scholarships [E0408]
In support of the University’s strategic direction of internationalism, entrance scholarships are available each Fall semester to the top international students entering their first semester of an undergraduate degree program at the University of Guelph. Applicants must submit all relevant documentation for admission consideration by March 1 to be considered for a scholarship. These scholarships are awarded on a competitive basis. Application not required.

Donor(s): University of Guelph
Qualification(s): Students on a “student visa” entering an undergraduate degree program at the University of Guelph with a record of high academic achievement and extracurricular involvement, and studying full-time. This award is offered for the first year of study.
Amount: Several awards ranging in value from $500 - $6,000

J.D. MacLachlan Scholarship [E0170]
Provided by the family of J.D. MacLachlan. Application not required.

Donor(s): The J.D. MacLachlan Trust
Qualification(s): Student entering the University with the highest admission average.
Amount: 1 award of $1,500

Lincoln Alexander Chancellor’s Scholarship [E0493]
These scholarships, named to honour Lincoln Alexander, Chancellor of the University of Guelph and former Lieutenant Governor of Ontario, on his 80th birthday, are awarded to academically distinguished entering students who are Aboriginal, persons with a disability or members of a racial minority, and who have made significant contributions to their schools and communities and demonstrated the potential to become leaders in society. These scholarships are intended to enhance student diversity and are amongst the most prestigious entrance awards at the University of Guelph. Nominations are made by high school principals and are to be sent to the Associate Registrar, Student Financial Services, by March 1. Two awards of $20,000 ($5,000 annually for 4 years).

Donor(s): Many Donors
Qualification(s): Entering students of academic distinction who are Aboriginal, persons with a disability or members of a racial minority, and who have made significant contributions to their schools and communities and demonstrated the potential to become leaders in society. Financial need may be taken into consideration.
Amount: 2 awards of $20,000

McArthur-Humphries Scholarship [E0183]
Provided by the Wilhelmina McArthur Humphries Trust Fund. This scholarship is awarded to students entering any undergraduate degree program and are based on the highest admission average. Application not required.

Donor(s): Wilhelmina McArthur-Humphries Trust Fund
Qualification(s): Students entering semester 1 with a minimum 75% admission average. Preference will be given to those students from Lanark and Wellington Counties. An equal number of awards are available to students from each county. In the case of insufficient eligible applicants from one county, the awards will be given to eligible applicants from the other county.
Amount: 12 awards of $1,000
IX. Scholarships and Other Awards, Bachelor of Science in Agriculture

P.A.J. Clarke Family Scholarship [E0381]
Paul and Aileen Clarke and their family established the endowment for this entrance scholarship in honour of Paul's father, the late Jack Clarke, a Blenheim area farmer. Apply by letter outlining extracurricular and/or community activities, ensuring that you have completed a Need Assessment Form for Entrance Awards, and submit to Student Financial Services by April 1. Students who have applied to the University for admission will receive information on completing a Need Assessment Form for Entrance Awards from the University early in the calendar year. This award is not tenable with the President's or Lincoln Alexander Chancellor's Scholarship. Annual payments are contingent upon full-time enrolment and maintaining a minimum 70% average on the previous Fall and Winter semesters. One award of $12,000 ($3,000 annually for 4 years).

Donor(s): Paul and Aileen Clarke
Qualification(s): Students with a minimum 80% average with a record of leadership and community participation are eligible. Preference will be given to candidates from Blenheim district or Kent County and who were raised, or have worked, on a farm. Students may be contacted to provide special need circumstances if there is a short list of equal candidates.

Amount: 1 award of $12,000

President’s Scholarship [E0238]
The most prestigious entrance awards at the University of Guelph. Twelve scholarships of $20,000 ($5,000 annually), named to honour their donors or distinguished members of the University, are awarded to entering students of academic distinction who have made significant contributions to their schools and communities and demonstrated the potential to become leaders in society. Nomination packages are sent to Canadian high schools each fall. This award is tenable with the University of Guelph Entrance Scholarship, but no other Entrance Scholarships. High school principals must submit their nominations using the application material sent to the school's Guidance Office in the fall, to the Associate Registrar, Student Financial Services, by March 1.

Donor(s): A number of President’s Scholarships have been named in honour of the following people and/or donors:
- Dick Brown
- Cecil H. Franklin and Ingrid Franklin
- Charles S. Humphrey
- Jack R. Longstaffe
- Burton C. Matthews
- Kathleen and Frederick Metcalf
- Mr. and Mrs. F.T. Metcalf of Guelph have endowed this award. After a distinguished career in cable TV, broadcasting and publishing, the late Mr. Metcalf retired as President of Maclean Hunter Ltd. and Chairman of the Board of Maclean Hunter Cable Ltd. He was a member of the University of Guelph Heritage Board (1996).
- Rol-land Farms Limited
- Lillian Stewart Usher

Qualification(s): Students entering an undergraduate degree program at the University of Guelph will receive information on completing a Need Assessment Form for Entrance Awards from the University early in the calendar year. This award is not tenable with the President’s Scholarship. Annual payments are contingent upon full-time enrolment and maintaining a minimum 70% average on the previous Fall and Winter semesters. You can view the scholarship amounts at: http://www.uoguelph.ca/studfin/fall_current_merit.shtml. Application not required.

Amount: Several awards ranging in value from $1,500 to $3,000

Robert Thompson Scholarship [E0283]
Established in memory of the late Robert Thompson. Application not required.

Donor(s): The estate of Mrs. Sarah Jane Fiske
Qualification(s): Student of high academic standing entering the first semester of the B.SC.(Agr.) program

Amount: 2 awards of $400

The Jack and Lillian MacDonald Scholarship [E0379]
Family, friends, and colleagues of Lillian MacDonald and Dr. Jack MacDonald, Vice-President, Academic, of the University of Guelph from 1986 to 1995, have established a scholarship that recognizes their commitment to increasing the accessibility of post-secondary education to aboriginal persons. Apply by letter to Student Financial Services by April 1.

Donor(s): Jack and Lillian MacDonald
Qualification(s): In the first instance, the award will be given to an entering student coming from the Grand River Polytechnical Institute (GRPI) and who has received the highest cumulative average in the Native University Access Program. If there is no entering student in any one year, the scholarship will be awarded to the in-course student who is a graduate of the GRPI who has the highest cumulative average at the University.

Amount: 1 award of $900

University of Guelph Entrance Scholarships [E0291]
This scholarship is based on the final admission average and program of study that is calculated by Admission Services, based on 12U, 12M, or OAC courses. These will be awarded based on the final high school grades that are submitted to the University in July. A minimum 85% final admission average guarantees an award. The scholarship will be applied directly to the student's financial account in two equal payments in the Fall and Winter Semesters. You can view the scholarship amounts at: http://www.uoguelph.ca/studfin/fall_current_merit.shtml. Application not required.

Donor(s): University of Guelph
Qualification(s): Students entering their first year of post-secondary studies for the first time and have a minimum 85% final admission average.

Amount: Several awards ranging in value from $1,500 to $3,000

University of Guelph Faculty Association Scholarship [E0292]

W. Penri Morris Memorial Scholarship [E0430]
Established by the family in memory of Penri Morris, who was killed World War II action in 1944 at the age of 21. Penri grew up on the family fruit farm near Forest, Ontario. After graduating from high school, he joined the Royal Canadian Air Force and was attached to the Royal Air Force Bomber Command as a navigator at the time of this death. Awarded to the student with the highest cumulative academic performance above 75% in all courses of the last year in high school study (full-time or equivalent study). Application not required.

Donor(s): Prof. Rosalina Morris
Qualification(s): Students entering first year of any undergraduate program from North Lambton Secondary School in Forest, Ontario, in their absence, from Lambton County, and their absence, from Ontario.

Amount: 1 award of $1,000

Entrance Scholarships with Financial Need

Bill Klopp Memorial Award [E0150]
Priority will be given to a student from Kitchener-Waterloo Collegiate and Vocational Institute. Apply by letter, to Student Financial Services, outlining extracurricular activities and by completing the online Entrance Financial Need Assessment Application (N.A.F.) by May 1. Students should complete the Entrance Financial Need Assessment application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student).

Donor(s): Ross and Mary Lou Klopp
Qualification(s): Presented to a student entering semester 1 from the cities of Kitchener or Waterloo who has demonstrated involvement in extracurricular activities who has shown satisfactory academic performance and who has financial need.

Amount: 1 award of $500

Last Revision: October 18, 2005  2005-2006 University of Guelph Undergraduate Calendar
### Kenneth O. Hammill-Blount Canada Scholarship [E4356]

Established in honour of Kenneth Osborne Hammill, a long time friend of the University and retired plant manager of Blount Canada, with the assistance of the Ontario government’s OSOTF program. The winner is chosen from the list of alternates for the President’s Scholarships. President’s Scholarship nominees should complete the online Entrance Financial Need Assessment application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student). Deadline to submit the application is May 1. ACCESS AWARD.

**Donor(s):** The Blount Foundation, Inc.

**Qualification(s):** Students from the Province of Ontario, with demonstrated financial need, entering one of the following programs on an annual rotation:

- B.A. in 98/99, then B.A.Sc., B.Comm., B.S.C., B.S.C.(Agr.), B.S.C.(Eng.), B.Sc.(Env.). Recipients must maintain a B+ average or higher, continue to demonstrate financial need and be full-time students in order to qualify for subsequent installments. During the summer after the 3rd year, the scholars will propose, to Student Financial Services, an enrichment experiential undertaking related to the student’s field of study; the grant application should include a detailed budget. A grant of up to $1,200 is available to support the undertaking, subject to continuing financial need and approval of the proposal by Student Financial Services. Upon completion, the student will write a report of the experience to Student Financial Services. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 1 award of $9,600, payable in 8 payments of $1,200

### Registrar’s Entrance Scholarships [E0384]

Established by the University of Guelph to support entering undergraduate students with identified financial need. Students should complete the online Entrance Financial Need Assessment application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student). Deadline to submit the application is May 1. ACCESS AWARD.

**Donor(s):** University of Guelph

**Qualification(s):** Students entering a full-time undergraduate program on the basis of financial need and academic merit.

**Amount:** 500 awards of $2,000

### Rol-Land Farms Scholarships [E4519]

Established by Rol-Land Farms, with the assistance of the Ontario government’s OSOTF program, to attract entering students who might otherwise not be able to attend university for financial reasons. Students should complete the online Financial Need Assessment application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student). Deadline to submit the application is May 1. ACCESS AWARD.

**Donor(s):** Rol-Land Farms

**Qualification(s):** Outstanding entering undergraduate degree students with demonstrated financial need and a minimum 80% cumulative average. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 13 awards of $2,000

### University of Guelph Accessibility Scholarship [E3038]

Established by the University of Guelph to support entering undergraduate students with identified financial need. Students should complete the online Entrance Financial Need Assessment application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student). Deadline to submit the application is May 1. ACCESS AWARD.

**Donor(s):** University of Guelph

**Qualification(s):** Students entering a full-time undergraduate program on the basis of financial need and academic excellence.

**Amount:** 150 awards of $9,000

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### Entrance Awards with Financial Need

#### Fred Hindle Bursary [E3500]

Awarded in memory of Fred Hindle, O.A.C.’38, a long-time generous supporter of his Alma Mater, who at the time of his death, wanted future students to have the same opportunity for an education as he had received. This bursary is awarded with the assistance of the Ontario government’s OSOTF program. This bursary is dependent on continued demonstration of financial need and successful completion of study to advance into the next year. Students should complete the online Entrance Financial Need Assessment application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student). Deadline to submit the application is May 1. ACCESS AWARD. One award of $6,000 ($1,500 annually for 4 years).

**Donor(s):** W. Roy Hindle and family

**Qualification(s):** An entering O.A.C. degree student who has demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statement on Awards).

**Amount:** 1 award of $6,000

#### Gord Bennett Memorial and OAC ’43 Class Bursary [E3515]

The family and friends of R. Gordon Bennett, O.A.C.’43, a former Deputy Minister of Agriculture, with the assistance of the Ontario government’s OSOTF program, have created a this bursary. Apply by letter to Student Financial Services and by completing the online Entrance Financial Need Assessment application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student). Deadline to submit the online application and letter is May 1. ACCESS AWARD.

**Donor(s):** The family and friends of R. Gordon Bennett, O.A.C.’43

**Qualification(s):** O.A.C. student with demonstrated financial need entering the Diploma, B.S.C.(Agr.), or B.COMM., Agricultural Business major, programs. Preference will be given to students whose primary family occupation is farming. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 1 award of $1,000

#### Harvey Graham Bursary [E3030]

Provided by Harvey Graham (OAC ’39). Students should complete the online Entrance Financial Need Assessment application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student). Deadline to submit the application is May 1.

**Donor(s):** Harvey Graham, OAC’39

**Qualification(s):** Student who has demonstrated financial need with preference given to a student who comes from a working farm. Students graduating from Lindsay C. V. I., Fenelon Falls Secondary School, or I. E. Weldon Secondary School will be considered. Each application must be accompanied by a reference letter from the Reeve of the student's home township.

**Amount:** 1 award of $1,700

#### International Student Entrance Bursaries [E3043]

In support of the University's strategic direction of internationalism, entrance bursaries are available each fall to assist some of our international students entering an undergraduate degree program at the University of Guelph. Students who have applied to the University of Guelph will receive an application form.

**Donor(s):** University of Guelph

**Qualification(s):** Students on a student visa entering an undergraduate degree program at the University of Guelph with demonstrated financial need.

**Amount:** Several awards of $1,000, Several awards of $3,000

#### Justine Eves Learning Disability Accessibility Bursaries [E3057]

In memory of Justine Eves who was dyslexic and died tragically in an automobile accident in 1995, the Justine Eves Foundation together with the University of Guelph provides these awards to entering Undergraduate students who have a learning disability and who has demonstrated financial need. Students should complete the online Entrance Financial Need Assessment application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student). Deadline to submit the application is May 1.

**Donor(s):** Justin Eves Foundation

**Qualification(s):** Any entering undergraduate student that has financial need and a documented learning disability as defined by the Ontario Psychological Association.

**Amount:** 4 awards of $3,000
Robert Arthur Stewart Bursaries [E3272]
Established in memory of Mrs. Elsa H. Stewart of Pakenham, Ontario. Mr. Stewart graduated from the Ontario Agricultural College in 1933 and Mrs. Stewart from Macdonald Institute in 1932. Applicants for these bursaries should have a good academic record and an active interest in community affairs. A recommendation from the County agricultural representative or the secondary school principal is required and should be sent to Student Financial Services by April 1. Students should complete the online Entrance Financial Need Assessment application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student).

Donor(s): The Estate of Mrs. H. Stewart
Qualification(s): Students from the Ontario Counties of Lanark and Renfrew, and the Regional Municipality of Ottawa-Carleton, entering the 1st semester of a degree program at the University of Guelph.
Amount: 12 awards of $500

In-course Scholarships

Allied Accounting and Tax Services Scholarship [C0004]
Provided by the Allied Group of Companies of London, Ontario. Application not required.

Donor(s): Allied Group of Companies
Qualification(s): Student graduating from the B.SC.(Agr.) program with the highest cumulative average in all semesters
Amount: 1 award of $250

Amber (Gibbons) Underwood Communications Award [I0207]
Offered in memory of Amber (Gibbons) Underwood (O.A.C.'79, M.SC.'87) by the Gibbons and Underwood families and the class of O.A.C.'79. Application not required.

Donor(s): The Gibbons and Underwood families and the Class of OAC '79
Qualification(s): Students enrolled in the B.SC.(Agr.) program of the Ontario Agricultural College. The recipient will be selected on the basis of their academic performance in one or more of the courses dealing with Communications: REXT*3040 Communication Process, REXT*3050, REXT*3060 International Communication and REXT*4060 Agricultural Communication.
Amount: 1 award of $400

Beth Duncan Gold Medalist [C0205]
Offered by the O.A.C. Alumni Foundation to a student in the B.SC.(Agr.) program. Application not required.

Donor(s): OAC Alumni Foundation
Qualification(s): Graduating B.Sc.(Agr.) student who has maintained minimum of a 70% standing in all semester levels while participating in and contributing to the extracurricular program on campus.
Amount: 1 Medal

Bill Taylor Memorial Scholarship [I0208]
Applications to include a supporting letter from a coach or intramural supervisor. Apply to Student Financial Services by April 1.

Donor(s): AMF Canada Ltd.
Qualification(s): Full-time student that has completed a minimum of 7.5 credits, but no more than 17.5 credits in the Winter term who has a cumulative 80% average or who is in the top 10% of his/her program. The recipient must have demonstrated responsibility and leadership qualities through participation in intramural or intercollegiate athletics.
Amount: 1 award of $900

Blackburn Scholarship [10404]
In commemoration of the 125th Anniversary of the Ontario Agricultural College. Dr. D.J. Blackburn, a retired faculty member in Rural Extension Studies and former Director of the Associate Diploma Program has established this scholarship. Apply by letter, citing athletic contributions, to the OAC Awards Committee by April 1.

Donor(s): D.J. Blackburn
Qualification(s): OAC degree or diploma student who has participated in intercollegiate athletics and maintained a minimum cumulative average of 70% while registered at Guelph. Athletic excellence and leadership will be used to determine the recipient.
Amount: 1 award of $1,000

Bruce M. Cohoe Prize [C0069]
Application not required.

Donor(s): Mr. Bruce M. Cohoe
Qualification(s): Student in the final semester level with an interest in agronomy with outstanding academic achievement and participation in extracurricular activities at the departmental, College and University levels.
Amount: 1 award of $1,200

Bruce W. Minshall Memorial Scholarship [I0450]
Provided by Dr. W.H. Minshall (O.A.C.'33) in memory of his son Bruce, a graduate of O.A.C. in 1970. Apply to Student Financial Services by April 1.

Donor(s): OAC Alumni Foundation on behalf of Dr. W.H. Minshall
Qualification(s): O.A.C. students in the B.SC.(Agr.), B.SC.(Env.) or B.SC. degree programs who have completed semester level 6 are eligible. Interest in crop protection and achievement in courses such as CROP*4240, ENVB*3030, ENVB*3210, ENVB*4100, and ENVB*4240 will be considered. Awarded to the student with an interest in crop protection and showing the greatest improvement in academic standing since entering the program.
Amount: 1 award of $1,000

C.G.A. Ontario Award for Excellence [C0025]
Apply by April 1 to Student Financial Services indicating intent to pursue the CGA program of professional studies. One award of $150 plus credit equaling one year’s tuition and course fees towards the CGA program (approximate value: $2,000)

Donor(s): Certified General Accountants Association of Ontario
Qualification(s): Graduating student who has a minimum cumulative average of 77% in Financial Accounting AGEC*2220; Management Accounting AGEC*2220; and Intermediate Accounting AGEC*3330.
Amount: 1 award of $150, plus 1 year tuition and course fee towards the CGA program. (approximate value of $2,000)

C.M. and D.J. Switzer Scholarships [I0276]
Apply by April 1 to Student Financial Services.

Donor(s): C.M. and D.J. Switzer
Qualification(s): One to a student who has completed semester 2 of the Diploma in Agriculture program and one to a student who has completed semester 4 of a degree program in OAC Recipients will have a minimum of 70% standing and have demonstrated outstanding leadership ability in OAC student organizations, class executives and College Royal.
Amount: 2 awards of $2,000

C.W. Riley Prize [C0246]
The C.W. Riley Prize was established by a number of his friends and associates. Application not required.

Donor(s): Friends and associates of C.W. Riley
Qualification(s): Student who, on graduation from Agricultural Economics, Agricultural Business or Resource Economics and Rural Development major, attains the highest proficiency in the area subjects.
Amount: 1 award of $375

Canadian Agri-Marketing Association (Ontario) Scholarship [I0541]
Provided by the Canadian Association of Agri-Marketing Association (Ontario). Apply to the OAC awards Committee by April 1 with a summary of participation in the AgEc & Biz Society and in agri-marketing initiatives as well as a letter of recommendation from a faculty member.

Donor(s): Canadian Agri-Marketing Association (Ontario)
Qualification(s): Student who has competed a minimum of 10 credits with a maximum cumulative average of 70% who are members of OAC and the Ag Ec & Biz Society. Selection will be based on a combination of academic achievement and a demonstrated interest in agi-marketing.
Amount: 1 award of $1,500

Canadian Association of Agri-Retailers Scholarship [I0444]
Provided by the Canadian Association of Agri-Retailers. Apply to Student Financial Services by April 1.

Donor(s): Canadian Association of Agri-Retailers
Qualification(s): Student who has completed semesters 4, 5, or 6 in B.SC.(Agr.) or B.Com., Agricultural Business major, with a minimum 70% average in the previous 2 semesters of full-time equivalent study, participated in extracurricular activities, and has an interest in the input supply industry in agriculture.
Amount: 1 award of $1,000
<table>
<thead>
<tr>
<th>Scholarship Name</th>
<th>Award Amount</th>
<th>Qualification(s)</th>
<th>Donor(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class of 1933 Scholarship [I0424]</td>
<td>1 award of $1,400</td>
<td>Outstanding student in any degree program who has attained at least an 80% average in two consecutive semesters resulting in placement on the Deans' Honours List.</td>
<td>Class 1970: 25th Reunion Gift</td>
</tr>
<tr>
<td>Collins Barrow Award [I0040]</td>
<td>1 award of $500</td>
<td>Student with the highest grade in course AGEC*3330, Intermediate Accounting, in the Fall semester.</td>
<td>Collins Barrow Chartered Accountants</td>
</tr>
<tr>
<td>Dawn Morris Memorial Award [C0361]</td>
<td>1 award of $1,500</td>
<td>Outstanding student who has demonstrated leadership in the College or University extracurricular activities.</td>
<td>The Family of Dawn Morris</td>
</tr>
<tr>
<td>Deans' Scholarships [I0323]</td>
<td>1 award of $1,500</td>
<td>Students registered in any degree program. The primary academic criteria is placement on the Deans' Honours List for two consecutive semesters, excluding semesters 7 and 8, in the previous Fall/Winter/Spring sequence.</td>
<td>Board of Governors</td>
</tr>
<tr>
<td>Doug Wakely Memorial Scholarship [I0334]</td>
<td>1 award of $800</td>
<td>Student in the B.SC.(Agr.) program who has completed course(s) in livestock production or in grain crop production and who has participated in athletics at the University, intramural or community level as a player or in an organizing capacity.</td>
<td>The Harriston Group of the Ontario Grain and Feed Dealers</td>
</tr>
<tr>
<td>Class of 1905 Scholarship [I0060]</td>
<td>1 award of $1,000</td>
<td>Student who has completed 15.0 course credits, is registered in a major in an Ontario Agricultural College, is considered to be the most outstanding student in the class and who, through activity in all branches of college life, as well as proficiency in scholarship during the program, has done most for the college, for fellow students and for personal development.</td>
<td>Graduating Class of 1905</td>
</tr>
<tr>
<td>Class of 1933 Scholarship [C0062]</td>
<td>2 awards of $2,500</td>
<td>Graduating students of the BSc(Agr.) program who plan to undertake graduate study in agriculture at a recognized university. Academic standing and involvement in extracurricular activities will be used to determine the recipients.</td>
<td>Graduating Class of 1933</td>
</tr>
<tr>
<td>Cay of 175th Anniversary Awards [I0515]</td>
<td>1 award of $300</td>
<td>Student who has completed 15.0 course credits, is registered in a major in an OAC department who have a 70% standing in the final year of study and who have demonstrated leadership and financial need.</td>
<td>The Guelph Community Foundation</td>
</tr>
<tr>
<td>Class of ’51 OAC Leadership Awards [C0063]</td>
<td>1 award of $1,000</td>
<td>Students graduating from the degree program in an OAC department who have a 70% standing in the final year of study and who have demonstrated leadership in the College or University extracurricular activities.</td>
<td>Year ’51 OAC</td>
</tr>
<tr>
<td>Class of ’67 OAC Centennial Scholarship [I0067]</td>
<td>4 awards of $1,000</td>
<td>Students graduating from the degree program in an OAC department who have a 70% standing in the final year of study and who have demonstrated leadership in the College or University extracurricular activities.</td>
<td>Class of OAC ’67</td>
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<td>Class of 1905 Scholarship [I0060]</td>
<td>1 award of $1,000</td>
<td>Student who has completed 15.0 course credits, is registered in a major in an Ontario Agricultural College, is considered to be the most outstanding student in the class and who, through activity in all branches of college life, as well as proficiency in scholarship during the program, has done most for the college, for fellow students and for personal development.</td>
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<td>CFRU Volunteer Award [I0215]</td>
<td>5000 or 2 awards of $2,500</td>
<td>Students registered in any degree program. The primary academic criteria is placement on the Deans' Honours List for two consecutive semesters, excluding semesters 7 and 8, in the previous Fall/Winter/Spring sequence.</td>
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IX. Scholarships and Other Awards, Bachelor of Science in Agriculture

Douglas M. Robinson Memorial Prize for Excellence in Communications [I0409]

In memory of Douglas Robinson (O.A.C. ’53), and in conjunction with the establishment of an innovative curriculum in agricultural science at the University of Guelph in 1995, the Innovative Farmers’ Association of Ontario and the Robinson family provide this annual prize. Apply by letter to the Dean’s Office, O.A.C. by April 1 outlining how communication has been used creatively and effectively. One annual award of $1,000 or two annual awards of $500.

**Donor(s):** The Innovative Farmers Association of Ontario

**Qualification(s):** Students in the B.SC.(Agr.) program who demonstrate creativity and excellence in communication.

**Amount:** 1 award of $1,000

Evelyn Matheson Pepper Memorial Scholarship [I0538]

The daughters and grandchildren of Evelyn Matheson Pepper, a Mac ’33 graduate, provide this scholarship. Application not required.

**Donor(s):** Ms. Barbara Stuart and Ms. Susan Pepper

**Qualification(s):** Student who achieves the highest grade in the course FRHD*3200, Practicum in Child, Youth and Family I, offered by the department of FRAN.

**Amount:** 1 award of $1,000

Foodland Hydro Scholarship [I0290]

The Foodland Hydro Scholarship was established by the Foodland Hydro Committee. Preference may be given to a student from Bruce, Huron or Middlesex Counties. Apply to Student Financial Services by April 1.

**Donor(s):** Foodland Hydro Committee

**Qualification(s):** Student who has completed semester 6 in the B.SC.(Agr.) program and who has an interest in agricultural environmental issues as they are affected by the public interest process.

**Amount:** 1 award of $800

Gary Putnam Memorial Scholarship [C0241]

Provided in memory of their son Gary by Mr. and Mrs. Ross Putnam. Apply to the Associate Registrar, Student Financial Services by April 1.

**Donor(s):** Mr. and Mrs. Ross G. Putnam

**Qualification(s):** Graduating B.SC.(Agr.) student with high standing in at least 3 courses in pesticides or alternative methods of insect, disease and weed control.

**Amount:** 1 award of $750

George A. Gray OAC ’51 Varsity Scholarships [I0487]

Established in memory of George Gray, OAC ’51, a Guelph football lineman and a great player of the game. Apply to Student Financial Services by October 7 providing a covering letter describing on- and off-campus academic and extra-curricular activities and a completed Need Assessment Form. Awarded at the annual Athletics Banquet.

**Donor(s):** Mrs. George A. Gray

**Qualification(s):** Undergraduate degree or diploma students who are members of varsity teams and in the second, third, fourth or fifth year of full-time study with a minimum 70% average in all courses completed in the previous year of study and have demonstrated leadership. Selection will include equally weighted consideration of academic performance, leadership and financial need. Preference will be given to members of the varsity football team. Examples of leadership may include academic tutoring, mentoring team mates, assisting in the organization and promotion of varsity and/or intramural athletics, participation on university committees, such as in residences, on Senate or in Colleges, and similar off-campus activities. Students may receive the award up to four times.

**Amount:** 2 awards of $1,250

Governor General’s Medal [C0044]

Established by the Office of the Governor General of Canada. Application not required.

**Donor(s):** The Chancellery

**Qualification(s):** Restricted to those undergraduate students in any degree program who are graduating in June, or who have graduated in the previous two convocations, with the highest cumulative average.

**Amount:** 1 Silver medal

Guelph Varsity Athletic Accessibility Scholarship [I0518]

Established by alumni and friends of the University of Guelph. Apply to Student Financial Services by October 7 providing a covering letter describing on- and off-campus academic and extra-curricular activities and a completed Need Assessment Form. Awarded at the annual Athletics Banquet.

**Donor(s):** Alumni and friends of the University of Guelph

**Qualification(s):** Undergraduate degree or diploma students, with at least 5.0 credits and less than 20.5 credits, who are members of a varsity athletic team and who have demonstrated financial need, are eligible to apply. Students must have maintained at least a 70% cumulative average in all courses completed in the previous year of study (minimum 3.0 credits). Selection will be based upon equally weighted consideration of academic performance and evidence of leadership qualities. Students may receive the award up to four times.

**Amount:** 2 awards of $1,250

Heimbecker Award in Entrepreneurship [I0388]

The Heimbecker Award in Entrepreneurship has been established by the friends and associates of Herb Heimbecker, on his retirement as a Director of Goderich Elevators, to honour his contributions to the agrifood industry in Canada. Students should apply to Student Financial Services by April 1, including a résumé and a letter highlighting their entrepreneurial skills and their aptitude and interest in business.

**Donor(s):** The friends of Herb Heimbecker at Goderich Elevators

**Qualification(s):** O.A.C. student in B.SC.(Agr.) or B.Comm., Agribusiness major, who has completed semester 6 are eligible. Students must have a minimum of a B standing (73%-76%) in their previous full-time year or equivalent [5.00] credits, have demonstrated entrepreneurial skills and display an aptitude and an interest in business.

**Amount:** 1 award of $1,300

Hurnik Award in Agricultural Ethics [I0455]

Provided by Dr. Frank Hurnik, Professor Emeritus, and faculty member in Animal and Poultry Science from 1971 to 1997. Dr. Hurnik initiated work in behavioral studies and animal welfare at Guelph, developed the first course in Animal Welfare, and was co-founder and editor of the Journal of Agricultural and Environmental Ethics. Apply by letter to the Chair, Animal and Poultry Science, by February 1 outlining details of the project or meeting.

**Donor(s):** Dr. Frank Hurnik

**Qualification(s):** O.A.C. undergraduate or graduate students who are associated with the department of Animal & Poultry Science and who undertake a project or attend a conference/scientific meeting or publish a paper in animal welfare or agricultural ethics may apply. A minimum of B standing for undergraduate students and A- standing for graduate students in the last two semesters is required. The award will be given to the student who has the best presentation, paper or project.

**Amount:** 1 award of $500

Intervet Canada Poultry Health Prize [C0327]

Awarded at graduation. Evaluated by the faculty in the Department of Animal and Poultry Science. Application not required.

**Donor(s):** Intervet Canada Inc.

**Qualification(s):** Student enrolled in the B.SC.(Agr.) program registered in courses AGR*4400 or AGR*4500 who submits a paper on some aspect of poultry health as it relates to poultry production.

**Amount:** 1 award of $500

Glen (Andy) W. Anderson Scholarship [I0380]

Family and friends of Glenn (Andy) Anderson (O.A.C. ’54 Crop Science) have created a scholarship to honour him at the time of his retirement after 41 years as a Professor in O.A.C. He had an interest in weed science throughout his career. Students are to apply, including a letter of reference from a Crop Science faculty member, to Student Financial Services, by April 1.

**Donor(s):** Anderson Family

**Qualification(s):** Offered to O.A.C. diploma students with an interest in agronomy or crop science who enter the B.SC.(Agr.) Degree program and who demonstrate a commitment to and an interest in weed science. Selection will be based on performance in courses in weed science, summer employment and/or work activity in the agricultural chemical industry and/or leadership activities in weed science and related areas. Preference will be given to a student who has resided in Ontario for at least 12 months prior to admission to the University of Guelph.

**Amount:** 1 award of $1,000
IX. Scholarships and Other Awards, Bachelor of Science in Agriculture

**J. Ross Cavers Memorial Scholarship [I0349]**
The members of O.A.C. '53 have established, in honour of their highly respected Honorary President and now Honorary Year member, Professor Emeritus Cavers, a scholarship to assist Canadian students to become more aware of international agriculture and hence to contribute to solutions of world food problems. Apply to Student Financial Services by April 1.

*Donor(s):* O.A.C. '53

*Qualification(s):* Student registered in the B.Sc.(Agr.), B.Sc.(Agr.) Agricultural Economics, B.Sc.(Agr.) Agronomy, B.A. Agricultural Economics, or B.Com. Agricultural Business program who has completed a minimum of 15.0 credits. Selection will be based on the student with the highest cumulative average. A student may be receive this award once only.

*Amount:* 1 award of $2,000

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**John Eccles Scholarship [I0093]**
Nominations, accompanied by appropriate résumés, are to be submitted to Student Financial Services by April 1.

*Donor(s):* Student Housing Services

*Qualification(s):* Full-time student registered in semester 2, 3, 4, 5 or 6 and living in residence in the Winter semester who has a cumulative 80% average or who is in the top 10% of his/her program. The recipient must have demonstrated responsibility and leadership qualities through participation in residence related activities. Residence Life Staff and paid members of Interhall Council and Hall Councils are not eligible.

*Amount:* 1 award of $600

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**Joseph Arlen Memorial Award in Horticulture [C0330]**
Application not required.

*Donor(s):* Mrs. Judy Arlen

*Qualification(s):* Student graduating from the B.Sc.(Agr.) program with an interest in Horticultural Science with the highest cumulative average in all semesters.

*Amount:* 1 award of $500

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**Kae and Gordon Skinner Memorial Scholarship [C0258]**
Provided by the late Kae Stalker Skinner (Mac '30) and Gordon Skinner (O.A.C. '24), former Registrar of the Ontario Institute of Agrologists. Consideration will be given to participation in the Student Branch of the Ontario Institute of Agrologists. Apply to Student Financial Services by April 1.

*Donor(s):* The estates of the late Mr. and Mrs. A.G. Skinner

*Qualification(s):* O.A.C. student graduating from the B.Sc.(Agr.), B.Sc., or B.Comm. programs who has made a significant contribution to developing an understanding of the profession of agrology among fellow students.

*Amount:* 1 award of $750

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**Kenneth W. Hammond Award [I0045]**
The evaluation of the student will be based on the final essay in the "Environmental Perspectives and Human Choice: 5000 Days" course. The selection committee will be comprised of 4 persons: the donor, the Director of the Arboretum, the Dean of Physical and Engineering Science and the Dean of Biological Science. Application not required.

*Donor(s):* Kenneth W. Hammond

*Qualification(s):* O.A.C. student graduating from the B.Sc.(Agr.), B.Sc., or B.Comm. programs with a cumulative average of 70%. Preference will be given to students who is in the top 10% of his/her program. The recipient must have demonstrated responsibility and leadership qualities through participation in residence related activities. Residence Life Staff and paid members of Interhall Council and Hall Councils are not eligible.

*Amount:* 1 award of $1,000

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**Kevin Lang Memorial Scholarship [I0328]**
In memory of Kevin Lang, '79 O.A.C. Apply to Student Financial Services, by April 1.

*Donor(s):* In memory of Kevin Lang, O.A.C. '79

*Qualification(s):* Student with an interest in courses in Animal and Poultry Science who, at the completion of semester 6, has contributed most to extra curricular activities related to animal agriculture.

*Amount:* 1 award of $500

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**Kip Hunter Prize [I0139]**
For the best essay, written by an undergraduate in a philosophy course. The essay may be either a required assignment for a course (in which case either the student or the instructor may submit it) or it may be specially prepared for the competition. Submission of essays is to the Chair, Department of Philosophy, by the end of the 12th week of the Winter semester.

*Donor(s):* Faculty, students and staff of the Philosophy Department

*Qualification(s):* Any undergraduate who has registered for a philosophy course during the academic year in which the prize is awarded.

*Amount:* 1 Book prize

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**Land Resource Science Academic Scholarship [C0425]**
Provided by the Land Resource Science Endowment fund. Application not required.

*Donor(s):* Provided by the Land Resource Science Endowment Fund

*Qualification(s):* Student graduating from any major in the department with the highest cumulative average.

*Amount:* 1 award of $1,000

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**Land Resource Science Achievement Scholarship [C0426]**
Provided by the Land Resource Science Endowment fund. Apply to Student Financial Services by April 1.

*Donor(s):* Provided by the Land Resource Science Endowment Fund

*Qualification(s):* Student graduating from any major in the department with a minimum cumulative average of 70%. Preference will be given to students contributing to student life on campus and/or community activities.

*Amount:* 1 award of $1,000
Leonard Conolly Exchange Student Scholarship [I0446]
Established by students, faculty, staff and friends to honour Prof. Leonard Conolly, professor of drama, Chair of the Department of Drama, 1981-88, and Associate Vice-President Academic, 1988-1992. Apply to the Centre for International Programs by April 5, for visiting during the subsequent Fall or Winter semesters.

**Donor(s):** Students, staff, faculty and friends of Dr. Leonard Conolly

**Qualification(s):** Full-time visiting exchange undergraduate or graduate student, registered at Guelph for at least one semester, from any country in the South (a list of eligible countries and exchange partner universities is available in the Centre for International Programs). Selection, by the Centre for International Programs, will be based on assessment of (a) a one-page submission describing the significance of the student visiting Guelph to the program of study at the partner exchange university (b) two faculty references of one-page each, and (c) consistent high performance in the course work completed, as documented by a transcript of program grades to date, submitted by the home university.

**Amount:** 1 award of $1,000

Maple Leaf Foods Inc. Shur-Gain Scholarship [I0307]
Provided by Shur-Gain, a member of Maple Leaf Foods Inc. Apply to Student Financial Services by April 1.

**Donor(s):** Shur-Gain

**Qualification(s):** Undergraduate in Animal Science or Animal Biology who has high academic standing during the first 4 semesters and is continuing in that program. Positive evidence of leadership and contribution to university and/or community life are also given strong consideration.

**Amount:** 2 awards of $2,200

OAC Centennial Graduate Fellowships [C0209]
Established as a permanent commemoration of the Centennial of the College. Apply to Student Financial Services by April 1.

**Donor(s):** Dean, OAC

**Qualification(s):** Students graduating from a degree program administered by the Ontario Agricultural College and who plan to pursue graduate studies in any department or school of the Ontario Agricultural College in the year of baccalaureate graduation are eligible for these fellowships. The fellowship will be based on academic achievement in semesters 7 and 8, as well as participation in extracurricular activities throughout the student's university career.

**Amount:** 2 awards of $2,200

OAC ’45 Public Speaking Awards [C0200]
Offered by the Class of ’45 O.A.C., on the occasion of their 40th anniversary. Application not required.

**Donor(s):** Year ’45 OAC

**Qualification(s):** Graduating student in the B.SC.(Agr.) or B.Comm. Agricultural Business programs who have demonstrated proficiency in public speaking and communication.

**Amount:** 2 awards of $1,000

O.A.C. Students’ Federation Medal [C0217]
Application not required.

**Donor(s):** OAC

**Qualification(s):** Graduating student in an undergraduate degree program in a major in an OAC department who has been an outstanding leader in student activities at the College level throughout his or her University career.

**Amount:** 1 Medal

O.A.C. ’55 Scholarships [I0064]
Provided by the class of OAC ’55. Apply to Student Financial Services by April 1.

**Donor(s):** OAC ’55

**Qualification(s):** Students who are registered in any OAC degree program or students enrolled in the B.SC.(Eng.) program and have completed semester 4. Recipients will have made an outstanding contribution to College life through academic proficiency and participation in extracurricular activities and can be considered to have done the most for the College, for fellow students and in their personal development. Recipients must have a 70% minimum cumulative average.

**Amount:** 1 award of $2,000

OAC Agricultural Co-operatives Scholarship [I0289]
These annual scholarships are provided by Ontario Agricultural Co-operatives. The award may be held only once. Apply to Student Financial Services by April 1.

**Donor(s):** Ontario Agricultural Co-operatives

**Qualification(s):** Students who have completed semester 4 or 6 of the B.SC.(Agr.) degree or B.Comm. degree with a major in Agricultural Business, or semester 2 of the Diploma in Agriculture program. One scholarship will be awarded in the diploma program and two in the degree programs, one at the conclusion of Semester 4, one at the conclusion of semester 6. Students must have at least a cumulative average of 70% and have demonstrated leadership and involvement in one or more of extracurricular activities, community service, or agricultural employment.

**Amount:** 3 awards of $800

Ontario Horticultural Association Scholarship [I0433]
Provided by the Ontario Horticultural Association. Apply to Student Financial Services by April 1.

**Donor(s):** Ontario Horticultural Association

**Qualification(s):** Student in the B.SC.(Agr.) program who has excelled in courses in horticultural science and who has completed semester 6.

**Amount:** 1 award of $500

Ottawa-Carleton 1983 International Ploughing Match (OAC) Scholarships [I0227]

**Donor(s):** Ottawa-Carleton International Ploughing Match Committee 1983

**Qualification(s):** Students from the Region of Ottawa-Carleton in the year they have completed semester 2 in the B.SC.(Agr.) program and who have a cumulative average of 70% (minimum) standing in semesters 1 and 2. Participation in extracurricular activities and financial need will be considered.

**Amount:** 3 awards of $1,000

Oxford County Pork Producers Scholarship (Degree) [I0531]
The Oxford County Pork Producers have made available this scholarship. Apply to OAC Awards Committee by April 1 with a letter up to two pages in length including information about leadership, community involvement and pork industry involvement.

**Donor(s):** Oxford County Pork Producers

**Qualification(s):** Students who have completed a minimum of 5.0 credits in an OAC degree program with a minimum cumulative average of 70%, pork production background or interest in pork production/industry, and demonstrated leadership and/or community involvement. Preference will be given to students from Oxford County or surrounding area.

**Amount:** 1 award of $1,000

Pacific Regeneration Technologies (PRT) Scholarship [C0511]
Provided by Pacific Regeneration Technologies Inc. (PRT), Canada's largest forestry nursery company. Application not required.

**Donor(s):** Pacific Regeneration Technologies Inc. (PRT)

**Qualification(s):** Undergraduate students who have completed at least 15.00 credits, and who have taken the forestry ecology course ENVB*4780 are eligible. High academic standing, with a preference to those graduating with a Forest Science minor, or related major/minor, will be used to select the winner.

**Amount:** 1 award of $500

Pacifica Mann Award for Embryology [I2032]
Provided by colleagues and friends of Dr. Mann, a scholar and teacher of Embryology from 1954-1987. Application not required.

**Donor(s):** Colleagues and friends of Dr. Mann

**Qualification(s):** Student from any degree program completing the course BIOM*3040 Biomedical Embryology, with the highest academic standing.

**Amount:** 1 award of $100
R.J. Watford Prize [C0304]
Apply to Student Financial Services by April 1.
Donor(s): R.J. Watford
Qualification(s): Graduating student who has shown proficiency in the poultry courses in semesters 4 to 8. The student shall have a genuine interest in the poultry industry and special consideration will be given to a student who indicates a desire to establish some form of poultry production or who seeks employment in the poultry industry.
Amount: 1 award of $500

R.W. (Bob) Pawley Scholarship [I0231]
Apply to Student Financial Services by April 1.
Donor(s): Mr. Robert W. Pawley, OAC ’39
Qualification(s): Student in the B.SC.(Agr.) program upon completion of the first 4 semesters who has had active participation or involvement in production agriculture.
Amount: 1 award of $600

Robert Harcourt Scholarships [I0121]
This fund was established by the late Mrs. R. Harcourt in honour of the late Dr. Robert Harcourt. Application not required.
Donor(s): Established by the late Mrs. R. Harcourt in honour of the late Dr. Robert Harcourt
Qualification(s): Students who have completed the 4th or 6th semester levels with an interest in courses in the Department of Land Resource Science.
Amount: 2 awards of $1,250

Robert Keegan Memorial Scholarship [C0148]
Offered by the family of the late Robert Keegan, formerly Professor of Plant Breeding, to apply to Student Financial Services by April 1.
Donor(s): The family of the late Robert Keegan
Qualification(s): Student in the Agronomy major. The award will be presented to a student with a minimum of 70% standing in his/her final year, a proficiency and interest in grain crops and who has actively participated in student organizations and extracurricular activities.
Amount: 1 award of $500

Robert McCann Memorial Scholarship [I0184]
Mrs. Edward McCann offers this scholarship in memory of her son. Apply to Student Financial Services by April 1.
Donor(s): Mrs. Edward McCann in honour of her son
Qualification(s): Student who has completed the 4th semester level and entering the 5th semester level with an interest in agroecosystem management. The student must have obtained 70% standing at the end of the 4th semester level and must have been active in student activities.
Amount: 1 award of $1,250

Robert S. and Ethelyne L. Fulkerson Scholarship [I0382]
Professor Robert S. Fulkerson, a former faculty member in the Department of Crop Science and graduate of O.A.C. in 1946, and his wife Ethelyne, have endowed two annual awards. Applications along with a completed Need Assessment Form should be submitted to Student Financial Services by April 1.
Donor(s): Professor Robert S. and Ethelyne L. Fulkerson
Qualification(s): Students in agronomy or crop science who have completed semester 6 with at least a 70% cumulative average, have an interest in crop production, and are in financial need may apply.
Amount: 2 awards of $750

Ross Jones Memorial Scholarship [C0147]
In memory of Ross Jones, ’71 O.A.C., his friends, colleagues and classmates. Apply to Student Financial Services by April 1.
Donor(s): Year ’71 OAC
Qualification(s): Graduating student who demonstrates the greatest potential in the area of Weed Science.
Amount: 1 award of $600

Samuel Carr Scholarship [C0048]
Offered from the estate of Samuel Leister Carr. Apply by letter to the O.A.C. Awards Committee by April 1.
Donor(s): The estate of the late Samuel Lester Carr
Qualification(s): Student completing the requirements for the B.SC.(Agr) program with a minimum of 70% standing in semester levels 7 and 8 and who has demonstrated willingness to assume responsibility and leadership in College and community activities. Preference will be given to candidates who, upon graduation, take an active part in the operation of a farm, that are involved with the management and day-to-day operation of the farm, farm related business, or horticultural enterprise and who have a capital investment in the farm or business.
Amount: 1 award of $3,000

Society of Management Accountants of Ontario Scholarship [C0268]
The scholarship will be awarded at summer convocation. Application not required. One award of $500 and a free course enrolment in the first complete CMA subject enrolled in the Society's program.
Donor(s): Society of Management Accountants, Grand River Chapter
Qualification(s): Full-time student graduating from B.Comm., B.A. (minor in Business Administration), or B.S.C. (minor in Business Administration), or B.S.C.(Agr.) (major in Agriculture Business or Agricultural Economics), programs. Student with the highest average in the 2 courses Financial Accounting AGEC*2220 and Intermediate Accounting AGEC*3330.
Amount: 1 award of $500, and a free course enrolment in the first complete CMA subject enrolled in the Society's program

Stephanie Wilken Volunteer Award [I0449]
Established by the Wilken family in memory of Stephanie Wilken, BA 1995. Apply to Student Financial Services with letter indicating the kind and extent of volunteer activities at the Wellness Centre by October 1. Selection committee is the Senate Committee on Awards on the recommendation of the Student Wellness Educator at the Wellness Centre.
Donor(s): Bev and Darlene Wilken
Qualification(s): Student registered in any undergraduate degree program, who has been a volunteer for at least two semesters at the Wellness Centre. The recipient will be selected on the basis of academic performance in all courses and volunteer work at the Wellness Centre.
Amount: 1 award of $1,000

T.K. Warley Agrifood Policy Prize [I0212]
Established by Prof. T.K. Warley, former Chair of the Department of Agricultural Economics and a faculty member of the Ontario Agricultural College from 1970 to 1991. Application not required.
Donor(s): Professor T.K. Warley
Qualification(s): Student providing the best term paper written on a public policy issue relating to the agrifood system or rural society in courses such as AGEC*3030 Price and Production Analysis, AGEC*4000 Agricultural and Food Policy, and AGEC*4720 Special Study in Agricultural Economics.
Amount: 1 award of $500

The Jack and Lillian MacDonald Scholarship [E0379]
Family, friends, and colleagues of Lillian MacDonald and Dr. Jack MacDonald, Vice-President, Academic, of the University of Guelph from 1986 to 1995, have established a scholarship that recognizes their commitment to increasing the accessibility of post-secondary education to aboriginal persons. Apply by letter to Student Financial Services by April 1.
Donor(s): Jack and Lillian MacDonald
Qualification(s): In the first instance, the award will be given to an entering student coming from the Grand River Polytechnical Institute (GRPI) and who has received the highest cumulative average in the Native University Access Program. If there is no entering student in any one year, the scholarship will be awarded to the in-course student who is a graduate of the GRPI who has the highest cumulative average at the University.
Amount: 1 award of $900

Thomas H. Peters Scholarship [I0233]
Application not required.
Donor(s): Friends and associates of Thomas H. Peters
Qualification(s): Student in any academic program of the University who has completed courses in Land Reclamation (e.g. CROP*2280, SOIL*3200), with a minimum 10.0 credits completed. Applicants must have a minimum of 70% cumulative average and have demonstrated an interest and aptitude in the area of crops and land reclamation.
Amount: 1 award of $250
### IX. Scholarships and Other Awards, Bachelor of Science in Agriculture

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<tr>
<th>Scholarship Name</th>
<th>Award Details</th>
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| **Toronto District Beekeepers’ Association Scholarship [10285]** | A scholarship is offered by the Toronto District Beekeepers Association in memory of the late Hugh McLeod, past chair of the Association. Application not required.  
**Donor(s):** Mr. Jack Robinson  
**Qualification(s):** The recipient will have good academic standing, have participated in extracurricular activities, and demonstrated a keen interest in beekeeping.  
**Amount:** 1 award of $500 |
| **United Steelworkers LU/4120 Scholarship [10293]** | Apply to Student Financial Services, by January 31.  
**Donor(s):** United Steelworkers LU4120  
**Qualification(s):** Student who is a member or former member, or who is from the immediate family of a member of United Steelworkers LU 4120, and who is entering semester 2, 3, or 4 of a degree or diploma program in the Winter semester. If there is more than one eligible candidate, the award will go to the one who has attained the highest relative class standing in his or her previous full-time semester, provided that a minimum of 70% standing is obtained.  
**Amount:** 1 award of $800 |
| **Van Stralen and Van Der Hoeven Memorial Scholarship [10296]** | Application will be made by nominations signed by 4 currently registered students forwarded to Student Financial Services by April 1. Presentations are made in the Fall semester.  
**Donor(s):** Mr. & Mrs. J. Van Stralen & family and Mr. & Mrs. Hans Van Der Hoeven & family  
**Qualification(s):** Students that have completed a minimum of 2.0 credits, but not more than 7.5 in the Winter term in any degree program who have obtained a minimum of 70% standing. Selection will be made on the basis of participation in university activities and in the student’s home community as well as qualities of leadership, ambition and initiative.  
**Amount:** 2 awards of $400 |
| **W. Harold Minshall Scholarship [10451]** | Provided by Dr. W.H. Minshall (O.A.C.‘33). Apply to Student Financial Services by April 1.  
**Donor(s):** OAC Alumni Foundation on behalf of Dr. W.H. Minshall  
**Qualification(s):** O.A.C. students in the B.SC.(Agr.), B.SC.(Env.) or B.SC. degree programs who have completed semester level 6 are eligible. Interest and aptitude in crop protection, particularly in weed biology and management. Interest in crop protection and achievement in courses such as CROP*4240, ENVB*3030, ENVB*3210, ENVB*4100, and ENVB*4240 will be considered. Awarded on the basis of academic standing, extracurricular activities, and in student’s home community.  
**Amount:** 1 award of $1,000 |
| **W.C. Winegard Medal [C0311]** | The W.C. Winegard Medal is the most prestigious graduating award of the University of Guelph. One student will be nominated by each College Awards Committee. The Senate Awards Committee will make the final selection and the medal will be awarded at Convocation in June. Application not required.  
**Donor(s):** The Board of Governors of the University  
**Qualification(s):** Graduating student who excels both academically and in extracurricular activities.  
**Amount:** 1 Gold medal |
| **W.H. Waddell Scholarship [C0300]** | Established by Professor W.H. Waddell. Apply to Student Financial Services by April 1.  
**Donor(s):** Professor W.H. Waddell  
**Qualification(s):** Graduating student in the Agriculture major who has a high academic standing in plant breeding and in genetics and has demonstrated an interest in Crop Science.  
**Amount:** 1 award of $600 |
| **W.N. Vaughan Medal [C0299]** | Prospective candidates will be nominated by Senators and the medal winner will be chosen by a committee selected by the Striking Committee. The medal will be awarded at Convocation in June. Application not required.  
**Donor(s):** Friends of Walter N. Vaughan  
**Qualification(s):** Student senator who has high academic standing and who has made a substantial contribution to student life and to the University, particularly through involvement in and commitment to Senate activities.  
**Amount:** 1 Medal |
| **Waterloo-Wellington CA Association Award [10367]** | Provided by the Waterloo-Wellington Chartered Accountant’s Association. Awarded in the Winter semester. Application not required.  
**Donor(s):** Waterloo-Wellington Chartered Accountants Association  
**Qualification(s):** Student who achieves the highest academic standing in the course AGEC*3330, Intermediate Accounting.  
**Amount:** 1 award of $100 |
| **William Godfrey Memorial Scholarship in Horticultural Science [10111]** | In memory of William Godfrey, ’33 O.A.C. Apply to Student Financial Services by April 1. One award of $1,600 (two payments of $800).  
**Donor(s):** Mrs. Lisabel Godfrey  
**Qualification(s):** Student with interest in Horticultural Science who has completed semester 4 or 6 or with a minimum of 70% standing, who has participated in extracurricular activities and who has an interest in tree fruit production. The scholarship is payable in 2 installments with the second installment conditional upon the student obtaining a minimum of 70% standing in semester 5 and 6 or registering in a graduate program in Horticultural Science as applicable.  
**Amount:** 1 award of $1,600 |
| **In-course Scholarships with Financial Need** |  
**3M Canada Scholarships [10564]** | Provided by 3M Canada. Apply to Student Financial Services by October 7 with a completed Financial Need Assessment Application.  
**Donor(s):** 3M Canada Company  
**Qualification(s):** Students entering Year 4 (ie. having completed a minimum of 15.0 credits) with demonstrated financial need and high academic achievement.  
**Amount:** 2 awards of $1,000 |
| **Eleanor Morgan & Bill Archibald Scholarships [14540]** | The family of Eleanor and Bill Archibald, with the assistance of the Ontario government’s OSOTF program, provide this scholarship in memory of their parents. Apply with a completed Need Assessment Form and a letter outlining community involvement to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD  
**Donor(s):** The Family of Eleanor & Bill Archibald  
**Qualification(s):** Students registered in any program with a minimum of 5.0 credits who have cumulative 70% average, has demonstrated community involvement, and financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (See General Statements on Awards).  
**Amount:** 1 award of $1,000 |
| **Erin Demers Memorial Scholarship [10406]** | The family and friends of Erin Demers, a first-year student at the University of Guelph who was tragically killed in a car accident in 1996, have established this scholarship in her memory. Apply with a completed Need Assessment Form, along with one supporting reference letter from a Residence Assistant, Residence Manager, or Residence Officer.  
**Donor(s):** Family and friends of Erin Katrina Demers  
**Qualification(s):** A student who has resided in an on-campus residence during the first semester and who has a cumulative average of 70%. This award is payable in the second year (ie completed 5.0 course credits) of study. Preference will be given to students with demonstrated financial need and who have participated significantly in extracurricular activities.  
**Amount:** 1 award of $1,000 |
| **Euclid-Hitachi Scholarships [14517]** | Established by Euclid-Hitachi of Canada Ltd., with the assistance of the Ontario government’s OSOTF program, to assist students with financial need to continue their studies as full-time students. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD  
**Donor(s):** Euclid-Hitachi of Canada Ltd.  
**Qualification(s):** Students with a minimum cumulative average of 70% with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).  
**Amount:** 2 awards of $1,500 |
Graham Family Incentive Scholarship [14506]
Provided by Harvey Graham (OAC ’39) with the assistance of the Ontario government’s OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

Donor(s): Harvey Graham OAC ’39
Qualification(s): Students entering the fourth year of a four year degree program, maintaining at least a 70% program average and demonstrating financial need, who have previously received the Harvey Graham Bursary. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

Amount: 1 award of $5,000

OAC ’52 Scholarships [14538]
Offered by the class of O.A.C.’52, with the assistance of the Ontario government’s OSOTF program. Apply by letter highlighting involvement in leadership and community activities and/or university life along with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

Donor(s): OAC ’52
Qualification(s): O.A.C. students enrolled in the B.SC.(Agr.), B.COMM., B.SC. or B.SC.(Env.) programs who have demonstrated financial need, who are in good academic standing and who have demonstrated leadership. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

Amount: 5 awards of $1,000

R. Douglas and Kathleen Kennedy Scholarship in OAC [10547]
Douglas (OAC ’39) and Kathleen (MAC ’39) Kennedy met at a “hop” on campus in 1937 and later married. They established this scholarship to celebrate their time on campus and their 62 years of marriage. Apply to Student Financial Services by October 7 with a completed Need Assessment Form.

Donor(s): Mrs. Kathleen Kennedy and the late Mr. R. Douglas Kennedy
Qualification(s): This scholarship will be awarded to a student in OAC with high academic achievement and demonstrated financial need.

Amount: 1 award of $1,000

Robert, Louis and Helen Shaw Memorial Degree Scholarships [14520]
Established by the Shaw Scholarship Committee with the assistance of the Ontario government’s OSOTF program. Apply by letter, including a summary of local agricultural activities and a completed Need Assessment Form, to Student Financial Services by October 7. ACCESS AWARD

Donor(s): The Shaw Scholarship Committee
Qualification(s): Students registered in the B.A.Sc, B.COMM. in Agricultural Business, B.SC.(Agr.) or D.V.M. programs studying agriculture, horticulture, equine studies, food and nutrition or veterinary sciences with demonstrated financial need, a 70% cumulative average and involvement in local agricultural activities. Preference will be given to first year students from Peterborough County. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

Amount: Several awards of $1,000

Tara Lynn Giuliani Memorial Award [10375]
In memory of Tara Lynn Giuliani, a bright young woman, who did not let her blindness stand in the way of her studies at the University of Guelph. Apply to the Centre for Students with Disabilities by November 25.

Donor(s): The Giuliani Family
Qualification(s): Most academically promising applicant with a demonstrated disability and having financial need.

Amount: 1 award of $500

Walter and Marion MacDougald Scholarship [14530]
Established by the family of Walter and Marian MacDougald on the 50th wedding anniversary of their parents, in recognition of their gift of life-long learning to their five children, with the assistance of the Ontario government’s OSOTF program. Apply to Student Financial Services by October 7 with a completed Need Assessment Form and a résumé that includes evidence of demonstrated leadership. ACCESS AWARD

Donor(s): Doug MacDougald, DVM
Qualification(s): Students demonstrating financial need with a minimum of 10.0 credits and less than 15.0 credits and who are in the following programs/majors/minors: B.A.SC., B.SC.(Agr.), B.SC.(Env.), B.SC. (Food Science, Animal Biology, Nutrition, or Forest Science), or D.V.M. are eligible. Students will have demonstrated leadership and a commitment to excellence and a minimum cumulative average of 70%. Recipients will be enrolled in a program involved in food supply or utilization, farmland conservation or woodlot management. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

Amount: 2 awards of $1,000

In-course Awards with Financial Need

Class of OAC ’36 Bursaries [13501]
Established by the Class of OAC ’36 with the assistance of the Ontario government’s OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

Donor(s): Class of 1936
Qualification(s): An OAC degree student enrolled in any degree program who has demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

Amount: 2 awards of $500

Archie and Isabelle (Cook) Rintoul OAC Bursary [13600]
Offered by Archie and Isabelle (Cook) Rintoul of OAC ’26 and MAC ’27 respectively. Apply with a completed Need Assessment Form by October 7 to Student Financial Services. Two awards of $500 (one in each of the two colleges).

Donor(s): Archie and Isabelle (Cook) Rintoul
Qualification(s): Students enrolled in the B.A.SC. program or the Hotel and Food Administration, Housing and Real Estate Management or Marketing Management majors of the B.COMM. program and the department of Environmental Biology in the B.SC., B.SC.(Agr.) or the B.SC.(Env.) degree programs. Students who have completed semester 4 (10.00 credits) and who have demonstrated financial need are eligible.

Amount: 2 awards of $500

Bette Stephenson Accessibility Bursary [13054]
In recognition of the work of Dr. Bette Stephenson in supporting students with learning disabilities, the University of Guelph offers bursaries to students who have demonstrated financial need and who have a learning disability. These bursaries will be used to offset the costs of a required assessment, or the purchase of a computer that is required to support their learning needs. Apply to Student Financial Services, with a completed Need Assessment Form by October 7. Awarded in the Winter semester.

Donor(s): University of Guelph
Qualification(s): Undergraduate students who have demonstrated financial need and who have a learning disability. Students must be full-time (as defined by OSAP regulations) and Canadian citizens or permanent residents.

Amount: 3 awards to a maximum of $1,500

Brinson Partners Inc. Bursaries [13526]
Brinson Partners Inc., with the assistance of the Ontario government’s OSOTF program, has established these bursaries. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

Donor(s): Brinson Partners Inc.
Qualification(s): Students with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

Amount: 2 awards of $1,500
Burnbrae Farms Bursaries [I3525]

Established by Burnbrae Farms, with the assistance of the Ontario government's OSOTF program to assist students with financial need to continue their studies as full-time students. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

**Donor(s):** Burnbrae Farms

**Qualification(s):** Full-time students with demonstrated financial need. Preference will be given to students with a demonstrated interest in poultry science. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 2 awards of $1,500

Class of '72: 25th Reunion Bursaries [I3512]

Established by the Class of '72: 25th Reunion Fund with the assistance of the Ontario government's OSOTF program to support students who wish to study full-time. Apply to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

**Donor(s):** Class of '72: 25th Reunion

**Qualification(s):** Full-time students with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 3 awards of $1,000

Class of OAC '33 Bursaries [I3531]

Established by the class of OAC '33 on the occasion of their 65th Anniversary, with the assistance of the Ontario government's OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

**Donor(s):** Class of 1933 (in honour of the late Prof. W.I.J. Squirrell)

**Qualification(s):** OAC undergraduate students with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 3 awards of $500

Credit Valley Conservation Authority Foundation Bursary [I3007]

Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester.

**Donor(s):** Credit Valley Conservation Authority Foundation

**Qualification(s):** Full-time student registered in B.A. Geography, B.SC. Geographic Information Systems and Environmental Analysis, B.SC. Engineering (Water Resource Engineering), B.SC.(Agr.) Agroecosystem Management or B.SC.(Env.) Geography majors with demonstrated financial need. Preference will be given to a student who resides in a member municipality of the Credit Valley Authority Foundation.

**Amount:** 1 award of $500

David R. Leach Memorial Bursary [I3534]

Provided in memory of David R. Leach by his family, with the assistance of the Ontario government's OSOTF program. David entered OAC in 1969 as a member of OAC '73 and graduated with a B.SC. in Agriculture in 1974. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

**Donor(s):** Mrs Deborah Leach-Sartor

**Qualification(s):** OAC undergraduate degree or diploma student who is physically disabled as determined by the Centre for students with Disabilities, has satisfactory academic standing and who has demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 1 award of $1,000

Donald P. Watson Bursaries in Horticultural Science [I4501]

Established by the estate of Donald P. Watson, O.A.C.'34, with the assistance of the Ontario government's OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD. A number of awards ranging from $500 to $2,000.

**Donor(s):** The estate of Dr. Donald P. Watson

**Qualification(s):** Undergraduate students majoring in Horticultural Science, Landscape Architecture, Agronomy, Agricultural Science or Environmental Science, who have completed a minimum of 10.00 credits and who have demonstrated financial need. Recipients must have satisfactory academic standing in their last 10.00 credits. The scholarships will be awarded based on financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** Several awards of $500, Several awards of $2,000

Elizabeth Burton Bursaries [I3503]

Mrs. Elizabeth Burton, with the assistance of the Ontario government's OSOTF program, provides bursaries to students with demonstrated financial need. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD. A number of awards totalling $2,900.

**Donor(s):** Mrs. Elizabeth Burton

**Qualification(s):** Students in second, third or fourth year with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** Several awards of $2,900

Grant Misener Bursaries [I3025]

Dr. Andrew Grant Misener, an alumnus of the University of Guelph, has provided this endowed fund. These bursaries provide financial assistance to students with established need and are distributed at the discretion of the University Bursary Committee. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester.

**Donor(s):** Dr. Andrew Grant Misener

**Qualification(s):** Students in the B.SC.(Agr.) program

**Amount:** Several varies

Gryphon Investment Council Bursaries [I3513]

Established by Gryphon Investment Counsel, with the assistance of the Ontario government's OSOTF program. Awarded in the Winter semester. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

**Donor(s):** Gryphon Investment Council Inc.

**Qualification(s):** Full-time students with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 2 awards of $1,500

Guelph Compassionate Health Bursary [I3061]

This bursary has been established and approved by the Student Health and Dental Committee to assist students facing unforeseen health needs above and beyond the benefits offered through the mandatory University of Guelph student health plan. Submit a Financial Need Assessment application accompanied by the physician recommendation, cost estimates and physician contact information to the Awards Office, Student Financial Services. The application will be reviewed throughout the semester to handle emergencies immediately.

**Donor(s):** Student Health and Dental Plan Reserve

**Qualification(s):** All currently registered students at the University of Guelph that are covered under the University of Guelph mandatory Student Health Plan. The student must require treatment for a condition not currently or completely covered by the Student Health Plan.

**Amount:** Several varies to a maximum $1,500

Guelph Student Assistance Program [I3056]

These bursaries have been established and approved by undergraduate students through student referendum to assist undergraduate and University of Guelph campus diploma students in financial need. Apply to Student Financial Services with a completed Need Assessment Form by October 7. Typically, awarded in the Winter semester.

**Donor(s):** Undergraduate Students

**Qualification(s):** Full-time undergraduate students registered in any degree program with demonstrated financial need. Preference will be given to students who are not eligible for provincial and/or federal assistance programs such as Ontario Student Assistance Program (OSAP) and/or Canada Student Loan Program (CSLP).

**Amount:** Several awards of varying amounts up to $1,000

Gwen Karr Memorial Bursary [I3010]

Mr. T.K.C. Karr, O.A.C. '32, has provided an endowment fund to assist students in a degree or diploma program of the Ontario Agricultural College. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester.

**Donor(s):** Mr. T.K.C. Karr, O.A.C.'32

**Qualification(s):** O.A.C. students with demonstrated financial need

**Amount:** Several varies
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| **Mary I. Whitelock Bursaries** [I3524] | Established by the estate of Mary I. Whitelock, a friend of the University, with the assistance of the Ontario government's OSOTF program, to assist students who wish to study full-time but who need financial support to do so. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD
- **Donor(s):** Estate of Mary I. Whitelock
- **Qualification(s):** All undergraduate, graduate or OAC diploma students with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).
- **Amount:** 13 awards of $2,000 |
| **O.A.C. ’55 Access Bursaries** [I3517] | Established by the class of O.A.C. ’55 with the assistance of the Ontario government’s OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD
- **Donor(s):** O.A.C. Class of ’55
- **Qualification(s):** Students at any semester level in an O.A.C. degree program or students enrolled in the B.SC.(Eng.) program with demonstrated financial need and a 60% minimum cumulative average. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).
- **Amount:** Several awards of $500 |
| **OAC ‘38 Lloyd Minshall Bursaries** [I3529] | Established by OAC ’38 Alumni, with the assistance of the Ontario government’s OSOTF program, to recognize the many contributions of Lloyd Minshall to his classmates and to OAC. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD
- **Donor(s):** OAC ’38 Alumni
- **Qualification(s):** OAC undergraduate students with demonstrated financial need in semesters 5, 6, 7 or 8 and OAC graduate students are eligible to apply. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).
- **Amount:** 7 awards of $1,000 |
| **OAC Alumni Foundation Access Bursaries** [I3533] | Provided by the OAC Alumni Foundation, with the assistance of the Ontario government's OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD
- **Donor(s):** OAC Alumni Foundation
- **Qualification(s):** OAC undergraduate students with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).
- **Amount:** 4 awards of $500 |
| **Ontario Agri Business Association Degree Bursaries** [I3502] | Established by the Ontario Agri Business Association, with the aid of the Ontario government's OSOTF program, has made available four bursaries of $750. Apply by October 7 to Student Financial Services with a letter, of up to two pages in length, detailing your involvement and including a University of Guelph Financial Needs Assessment Form. ACCESS AWARD
- **Donor(s):** Ontario Agri Business Association
- **Qualification(s):** Awarded to students who have completed a minimum of 10.0 credits in the B.SC.(Ag.) program in either an unspecified major or in Agricultural Economics, Animal Science, Agronomy or in the B.Com. program in Agricultural Business. Students must have a minimum cumulative average of 60%. Students will be selected based on demonstrated financial need and in involvement in community/extracurricular activities. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).
- **Amount:** 4 awards of $750 |
IX. Scholarships and Other Awards, Bachelor of Science in Agriculture

Ontario Cattlemen's Association Degree Bursary [13506]
Provided by the Ontario Cattlemen's Association and the O.A.C. Alumni Foundation with the assistance of the Ontario government's OSOTF program. Apply with a letter and a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

Donor(s): Ontario Cattlemen's Association
Qualification(s): Students with demonstrated financial need who are enrolled in semester 5 or above in the B.Sc.(Agr.), B.Comm.(Agricultural Business), B.S.C.(Animal Biology) or B.Sc. (Food Science) program and have a 60% minimum cumulative average. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

Amount: 4 awards of $500

Ontario Co-operatives R.P. Forshaw Bursary [1313]
Provided by the Ontario Egg Producers' Marketing Board and the O.A.C. Alumni Foundation. Apply by letter with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

Donor(s): The Co-operatives, Credit Unions, friends and associates of Prof. R.P. Forshaw
Qualification(s): Undergraduate students who have financial need. Preference may be given to candidates who have been or are members of a co-operative or credit union.

Amount: 1 award of $400

Ontario Egg Producers’ Marketing Board Bursaries [13507]
Provided by the Ontario Egg Producers’ Marketing Board and the O.A.C. Alumni Foundation with the assistance of the Ontario government's OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

Donor(s): The Ontario Egg Producers’ Marketing Board
Qualification(s): Students with demonstrated financial need who have completed semester 2 and are enrolled in the B.Sc.(Agr.) or B.Com.(Agricultural Business) programs and who have a 60% minimum cumulative average. Preference will be given to students who have demonstrated an interest in the poultry industry. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

Amount: 6 awards of $1,000

Ontario Federation of Agriculture Bursaries [13520]
Provided by the Ontario Federation of Agriculture and the O.A.C. Alumni Foundation with the assistance of the Ontario government's OSOTF program. Apply with a letter and a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

Donor(s): Ontario Federation of Agriculture
Qualification(s): O.A.C. students with demonstrated financial need enrolled in the B.Sc.(Agr.), B.Com., B.Sc. or B.Sc.(Env.) programs. Preference will be given to students from farm families who have participated in 4H and/or rural community activities. A student may receive up to three bursaries annually ($1,500). Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

Amount: 12 awards of $500

Ontario Grape Growers Bursary [13033]
Offered by the Ontario Grape Growers Action Committee. Apply to Student Financial Services with a completed Need Assessment Form by October 7. Awarded in the Winter semester. ACCESS AWARD

Donor(s): The Ontario Grape Growers Action Committee
Qualification(s): Students with good academic standing in semesters 3 to 6 of a degree program or semesters 3 to 4 of a diploma program administered by O.A.C., and demonstrated need of financial assistance.

Amount: Several of various amounts

Ontario Pork (Degree) Bursary [13049]
Provided by Ontario Pork Producers’ Marketing Board. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

Donor(s): Ontario Pork Producers’ Marketing Board
Qualification(s): B.Sc.(Agr.) and B.Com., Agricultural Business major, students with demonstrated financial need who have completed semester 4 and who have satisfactory academic standing and an interest in pork production.

Amount: 1 award of $500

Robby Travel Grants [T3028]
These travel grants have been provided in recognition of her love of agriculture, by the estate of Martha Robb, Paris, Ontario. Apply to the Dean, O.A.C. by April 15. Varying amounts (80% of the travel costs will be covered up to $750 per student).

Donor(s): The estate of Martha Robb
Qualification(s): O.A.C. students who are attending another university on a Letter of Permission.

Amount: Several varies

Robert Auger Humanitarian Bursary [13058]
This award, of up to $500, has been established through the generosity of staff in the Office of Registrarial Services, family and friends of Robert Auger, a former Associate Registrar at the University of Guelph. It is intended as an emergency fund to assist students who unexpectedly find themselves in difficult financial circumstances, to provide grocery, and textbook vouchers.

Donor(s): Office of Registrarial Services
Qualification(s): Students who require assistance through this fund should apply in confidence to the Assistant Registrar, Financial Aid, Student Financial Services.

Amount: Several of various $500

Scotiabank Bursaries [13532]
Established by Scotiabank, with the assistance of the Ontario government's OSOTF program, to assist students with financial need to continue their studies as full-time students. Distributed in the Winter semester. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

Amount: 2 awards of $1,500

T.K. Warley Bursaries [13510]
Established by O.A.C. Alumni Association, with the assistance of the Ontario government's OSOTF program, to recognize Professor T.K. Warley's significant contribution to the O.A.C. Alumni Foundation and to students through teaching and promotion/development of "Experience Agriculture". A degree student may receive this bursary twice. Apply by letter stating qualifications with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

Amount: 3 awards of $500

University of Guelph Access Bursaries [13522]
Provided by alumni and friends of the University, with the assistance of the Ontario government's OSOTF program, to support undergraduate, graduate or OAC (Guelph) diploma students who wish to study full-time but who need financial support to do so. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

Amount: Several of amounts, Several awards of $2,000

University of Guelph Alumni Association Access Bursaries [13523]
Established by the University of Guelph Alumni Association, with the assistance of the Ontario government's OSOTF program, to support students who wish to study full-time but who need financial support to do so. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

Amount: Several of amounts, Several awards of $2,000

Last Revision: October 18, 2005
2005-2006 University of Guelph Undergraduate Calendar
### University of Guelph Child Cares Bursaries [I3053]

In order to provide accessible child care to students with (a) child(ren), the University of Guelph offers bursaries to students who have demonstrated financial need. Apply to Student Financial Services, with a completed Need Assessment Form by October 7. Awarded in the Winter semester. A number of awards of between $500 and $2,000.

**Donor(s):** University of Guelph  
**Qualification(s):** Students, supporting (a) child(ren) who demonstrate greatest financial need, to offset the costs of child care. To be eligible, undergraduate students must be full-time (as defined by OSAP regulations) and Canadian citizens or permanent residents with demonstrated financial need.

**Amount:** Several awards of $500, Several awards of $2,000

### University Police Bursaries [I3019]

Several awards of varying amount to a maximum of $1,000. Full-time undergraduate students registered in any degree program at the University of Guelph. Donor(s): need. Apply to Student Financial Services with a completed Need Assessment Form by October 7. The University Police have made available a number of bursaries. Apply to Student Financial Services with a completed Need Assessment Form by October 7. Awarded in the Winter semester. A number of awards of between $500 and $2,000.

**Donor(s):** University of Guelph  
**Qualification(s):** Any International student registered in a degree program at the University of Guelph with a minimum registration of 1.50 course credits.

**Amount:** Several awards ranging in value from $100 to $3,000

### University of Guelph Undergraduate In-Course Bursaries (MET-TR-UG) [I3037]

The University of Guelph offers in-course bursaries to students who have demonstrated financial need. Apply to Student Financial Services, with a completed Need Assessment Form by October 7. Awarded in the Winter semester.

**Donor(s):** University of Guelph  
**Qualification(s):** Ontario students registered for full-time studies (as defined by OSAP) in a degree program with demonstrated financial need and a minimum of 2.0 course credits completed.

**Amount:** Several awards to a maximum of $800

### University of Guelph Undergraduate In-Course Bursaries (NON OSAP TR) [I3047]

The University of Guelph offers in-course bursaries to students who have demonstrated financial need. Apply to Student Financial Services, with a completed Need Assessment Form by October 7. Awarded in the Winter semester.

**Donor(s):** University of Guelph  
**Qualification(s):** Undergraduate students registered for full-time studies (as defined by OSAP) in a degree program with demonstrated financial need and a minimum of 2.0 course credits completed.

**Amount:** Several awards to a maximum of $800

### University Student Assistance Program [I3057]

These bursaries have been established and approved by the University of Guelph to assist undergraduate and University of Guelph campus diploma students in financial need. Apply to Student Financial Services with a completed Need Assessment Form by October 7. Typically, awarded in the Winter semester.

**Donor(s):** University of Guelph  
**Qualification(s):** Full-time undergraduate and graduate students who have financial need.

**Amount:** Several awards

### In-course Travel Grants

#### A.W. Archibald Memorial Travel Grant [T4541]

Mr. A.W. Archibald, OAC ‘33 with the assistance of the Ontario government’s OSOTF program, provide these travel grants to students who plan to travel for a semester abroad or to attend other schools outside of Canada for workshops or other academic related purposes. Apply to Student Financial Services with a letter outlining proposed travel plans and academic purpose accompanied by a letter of support from a faculty member or student advisor, a travel budget, and a completed Financial Need Assessment Form by October 7. ACCESS AWARD.

**Donor(s):** A.W. Archibald, OAC ‘33  
**Qualification(s):** Undergraduate students in any OAC program with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** Several up to $1000

#### Arthur D. Latornell Undergraduate Travel Grants [T0058]

An endowment fund established in memory of Arthur D. Latornell, OAC ’50, who had a life-long professional career in resource management and conservation and a special interest in helping young people. The funds are given to provide twenty-five travel grants. These travel grants are offered to assist students in attending conferences, courses, co-op student exchanges or study abroad programs in these areas. Students may receive this grant only once. Apply to Student Financial Services. Deadline dates are June 1 for Fall travel, October 1 for Winter travel, and February 1 for Summer travel. Up to 80% of estimated travel costs to a maximum of $1,000.

**Donor(s):** The Estate of Arthur D. Latornell  
**Qualification(s):** Students in semester 3 and above. Students must have at least a 70% average and a primary area of interest related to natural resources management, environmental science, conservation, soil science and/or rural development. Students will be asked to submit a one-page review of their travel experience, including the role the travel grant played, to the University after completion of the travel.

**Amount:** several up to a maximum of $1000

### Canada's Outdoor Farm Show Travel Grants [T3536]

Established by Canada’s Outdoor Farm Show and the O.A.C. Alumni Foundation, with the assistance of the Ontario government’s OSOTF program. Apply to Student Financial Services with a completed Need Assessment Form by February 1. The letter should outline the reasons for participating in the meeting, competition, etc., and include a brief statement of learning objectives and appropriate involvement in student activities. Upon successful return from travel opportunity, student(s) should be willing to present report to classmates and/or faculty. ACCESS AWARD.

**Donor(s):** Canada’s Outdoor Farm Show  
**Qualification(s):** Undergraduate students in O.A.C. who have completed semester 4 in Agricultural Science or Agricultural Business or who have completed semester 2 of the Diploma in Agriculture program (Alfred, Guelph, Kemptville, Ridgetown).

**Amount:** 1 award of $1,000

### Canadian Friends of the Hebrew University in Jerusalem Travel Bursary [T4532]

The Canadian Friends of the Hebrew University of Jerusalem, with the assistance of the Ontario government's OSOTF program, have established these travel scholarships to assist students study at the Hebrew University of Jerusalem. Apply by letter with a completed Need Assessment Form to Student Financial Services by May 1. ACCESS AWARD. Up to three awards totalling $7500.

**Donor(s):** Canadian Friends of the Hebrew University in Jerusalem  
**Qualification(s):** Undergraduate degree students in either the second or third year of study, Masters students in the first year of study, and Doctoral students in the first three years of study are eligible to be considered. Applicants must provide documentation that they have approval from the Hebrew University of Jerusalem (i) to take courses and (ii) for the period of the visit. Students must also arrange appropriate University of Guelph approvals for a "Letter of Permission" prior to applying. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 3 Awards with varying amounts
Frank E. Wolff International Scholarships [T0313]
The late Frank E. Wolff was a faculty member and a graduate of O.A.C. He was active in the O.A.C. Alumni Foundation and in the establishment of the O.A.C. Alumni Foundation. This scholarship fund was established in memory of Frank E. Wolff. Mr. A.O. Wolff and family. As a faculty member, he studied the techniques of artificial insemination of cattle in Denmark and upon his return in 1939, employed these techniques in the O.A.C. herd. To be considered for this award, students must apply for the J. Ross Cavers International Scholarship by April 1.

Donor(s): Ron Wolff - friends and associates

Qualification(s): Students who have an interest in International Agriculture. The scholarships will be awarded to students with a minimum of a 70% standing over the first 4 semester levels of the B.Sc.(Agr.) program. Students must register for the International Field Study course (AGR*2500) in the year the award is received.

Amount: Up to 9 awards of $600

J. Ross Cavers International Exchange Scholarship [T0051]
O.A.C. ’53 provides this scholarship in memory of J. Ross Cavers, their honorary year member and Professor Emeritus. Apply to Student Financial Services, by April 1.

Donor(s): O.A.C. ’53

Qualification(s): Undergraduate student in OAC with travel and/or housing costs associated with a semester or more of academic study or cooperative work experience through a recognized university outside Canada. Students must have completed [7.50] credits and have satisfactory academic standing in their undergraduate course work. Preference will be given to a candidate who has exhibited qualities of leadership.

Amount: 1 award of $1,000

Lorne Page Memorial Travel Grants [T0475]
Established by Shirley Page in memory of her husband Lorne, a staff member in Animal and Poultry Science for over 34 years. Apply by letter to the Chair, Department of Animal and Poultry Science by February 1, outlining the nature of the conference and your contribution to the program in the department. One or two awards totalling $1,000.

Donor(s): Shirley Page

Qualification(s): Students in Animal Biology or in Agricultural Science with an interest in animal production who have completed 12.50 credits with satisfactory academic standing and who are planning to attend a student conference or activity related to animal production.

Amount: 1 award of $1,000

Massey Fund Travel Scholarships [T0417]
Travel scholarships available from the Massey Fund. Not tenable with other awards that support travel costs. Apply by letter outlining the study abroad/exchange program and travel costs to the OAC Dean's Office by April 15.

Donor(s): Massey Fund

Qualification(s): OC undergraduate students who are participating in an approved study abroad or exchange program outside Canada. Academic standing in the last two full-time semesters or equivalent will be used to determine recipients.

Amount: 1 award of $750

Michael Chepesuik International Travel Grant [T0373]
Offered in memory of the late Michael W. Chepesuik, O.A.C.’30. Application by letter should be made to the O.A.C. Dean's Office by April 15, and include a description of the study program. Travel grant (or grants). Up to 80% of the actual travel costs associated with the study outside of Canada program will be covered up to a maximum of $1,000 per student.

Donor(s): Mr. Michael W. Chepesuik

Qualification(s): Undergraduate or graduate students pursuing studies in Agricultural Economics and who are studying outside of Canada for one or more semesters.

Amount: 1 award of $1,000

OAC ’47 Travel Bursaries [T3505]
Provided by OAC’47 on the occasion of its 50th anniversary and with the assistance of the Ontario government's OSOTF program. Apply by letter with a completed Travel Award Application and a Need Assessment Form for Travel awards to Student Financial Services by October 1, January 1 or June 1. ACCESS AWARD

Donor(s): OAC ’47

Qualification(s): OC undergraduate students who have demonstrated financial need and who are participating in a study abroad program for academic credit at an approved institution. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

Amount: 3 awards of $600

Richard and Sophia Hungerford Undergraduate Travel Scholarships [T4508]
The estate of Richard and Sophia Hungerford, with the assistance of the Ontario government's OSOTF program, has established an endowment to provide travel scholarships to undergraduate students with demonstrated financial need who wish to study in developing countries, or attend conferences on development. Apply to Student Financial Services with a description of the intended travel, an estimate of the travel costs and a completed Need Assessment Form at least one month prior to departure. Deadline dates are June 1 for Fall travel, October 1 for Winter travel, and February 1 for Summer travel. ACCESS AWARD.

Donor(s): The Estate of Richard Hungerford

Qualification(s): Registered undergraduate students with demonstrated financial need who have at least a 70% cumulative average in the last 2 semesters of full-time equivalent study are eligible. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

Amount: Several awards of varying amounts to a maximum of $1,000

Roderick Long International Travel Grant [T0360]
Offered in memory of the late Roderick Long, O.A.C.’54. Up to eighty percent of the travel costs associated with the study outside of Canada program will be covered up to a maximum of $1,000 per student. Application by letter should be made to the Dean O.A.C. by April 15, and include a description of the study abroad program. Travel grant (or grants) totalling $1,500.

Donor(s): Mr. Roderick W. Long

Qualification(s): O.A.C. undergraduate student who is studying outside of Canada on an approved program for one or more semesters.

Amount: Several awards of $1,500

University of Guelph Travel Scholarships [T0421]
The University of Guelph, through the sale of Guelph London House, has established an endowment to provide travel scholarships to undergraduate and graduate students who wish to study outside of Canada but need financial support to do so. A total of $35,000 is available in the fund. Apply to Student Financial Services with a completed Travel Grant Application and Financial Need Assessment Form by October 1 for Winter travel, February 1 for Spring travel and June 1 for Fall travel.

Donor(s): University of Guelph

Qualification(s): Registered undergraduate and graduate students that have completed 5.0 credits with demonstrated financial need who have a minimum 70% cumulative average in the last two semesters of full-time equivalent study are eligible to apply. The value of the award will depend on the assessed financial need. The scholarship can cover additional costs of travelling outside of Canada including: airfare, administrative costs, and differential costs of accommodation.

Amount: Several up to $1,000

Varley and Lyon Exchange Scholarships [T0298]
Miss Bertha Manent of New York City has established five or more Mrs. Lillie-Jane Lyon Varley and Clarence D. Lyon Exchange scholarships. Apply to Student Financial Services by April 1, including a letter from the Dean or Director approving the proposed program of study.

Donor(s): Miss Bertha Manent

Qualification(s): O.A.C. students who are pursuing a course of study for one or two semesters at another college or faculty of agriculture in Canada or in another country. Such course of study must lead to the degree of B.Sc.(Agr.), B.Comm. in Agricultural Business or the Diploma in Agriculture at the University of Guelph.

Amount: 3 awards of $750
Bachelor of Science in Engineering

Please refer to the General Statement on Awards for:

- Award Eligibility
- ACCESS Awards Eligibility
- Ontario Student Opportunity Trust Fund (OSOTF) Program
- How Awards are Paid

The University reserves the right to amend awards subject to the availability of funds.

Entrance Scholarships

Angelo and Frank Agro Undergraduate Scholarship [E0520]

Provided by the Agro Scholarship Fund. Apply by April 1 to Student Financial Services, including a covering letter describing your activities within 4H (details of 4H club membership, creativity in support of 4H activities, participation in activities and events, volunteer leadership roles, etc.) and a letter of reference from a 4H club official attesting to your involvement. $4,000 ($1,000 annually for four years).

Donor(s): The Frank Agro Estate
Qualification(s): Full-time students entering semester 1 who have attained a minimum 80% admission average in their graduating year from high school. The scholarship will be awarded to the eligible student demonstrating the greatest past or continuing involvement with 4H activities. Recipients must maintain full-time studies and at least a 70% program average each year for continuation of the award.

Amount: 1 award of $4,000

Association of Professional Engineers of Ontario Scholarship [E0016]

Awarded by the Ontario Professional Engineers Foundation for Education, on the recommendation of the University’s Faculty of Council to Ontario Scholars entering an accredited engineering program. Application not required.

Donor(s): Professional Engineers of Ontario.
Qualification(s): Students entering the B.Sc.(Eng.) program who are well-rounded, exhibit characteristics of leadership and have demonstrated academic excellence.

Amount: 2 awards of $1,500

Board of Governors' Scholarships [E0317]

The scholarship will be paid in eight equal installments with the first and second payments payable shortly after registration in semesters 1 and 2. The 3rd to 8th payments are contingent upon obtaining a minimum average of 80% over the previous two semesters of full-time study. Students who fail to qualify for a payment may re-qualify by subsequently obtaining an 80% or better average over the previous two semesters of full-time study. Application not required. Twenty-five awards of $8,000 ($2,000 annually for 4 years).

Donor(s): Board of Governors
Qualification(s): Outstanding students entering semester 1

Amount: 25 awards of $8,000

Danone Crystal Springs Water Resources Engineering Entrance Scholarships [E0514]

Established through the generosity of Danone Crystal Springs, a leading distributor of bottled water. Eligible students will be invited to submit an essay to the Chair of the School of Engineering Awards Committee by October 1.

Donor(s): Danone Crystal Springs
Qualification(s): Students entering the Water Resources Engineering program with the highest admission average who have completed a satisfactory three-page essay on a water resources protection topic of the applicants' choice.

Amount: 2 awards of $2,000

December 6th Memorial Scholarship [E0005]

This scholarship, established by the Faculty Association, is awarded in memory of the fourteen women murdered in December 1989 at Ecole Polytechnique and is intended to attract women to a profession that is largely comprised of men. Application not required. $2,250 ($750 in each of semesters 1, 3 and 5).

Donor(s): University of Guelph Faculty Association
Qualification(s): Female student who is a Canadian Citizen or Permanent resident of Canada enrolled in the College of Physical and Engineering Science. The recipient will be selected on the basis of academic performance. For continued eligibility beyond semester 1, the student must maintain a minimum of 70% cumulative average. Demonstrated financial need may also be considered.

Amount: 1 award of $2,250

Earl B. MacNaughton Entrance Scholarships [E0172]

Established by friends, faculty, staff, alumni and students of the University to honour Earl B. MacNaughton, former head of the Department of Physics and founding Dean of the College of Physical Science. Application not required.

Donor(s): Earl B. MacNaughton
Qualification(s): Students with high academic standing, entering an honours program in the College of Physical and Engineering Science. Emphasis will be given to academic achievement in high school science and mathematics.

Amount: 4 awards of $1,000

Gordon W. Innes Scholarship [E0140]

Established by the Gordon W. "Sparky" Innes Scholarship Fund Committee of the Woodstock Agricultural Society. Application not required.

Donor(s): Gordon W. "Sparky" Innes Scholarship Fund Committee of the Woodstock Agricultural Society
Qualification(s): Student from Oxford County with the highest admission average.

Amount: 1 award of $1,400

International Student Entrance Scholarships [E0408]

In support of the University's strategic direction of internationalism, entrance scholarships are available each Fall semester to the top international students entering their first semester of an undergraduate degree program at the University of Guelph. Applicants must submit all relevant documentation for admission consideration by March 1 to be considered for a scholarship. These scholarships are awarded on a competitive basis. Application not required.

Donor(s): University of Guelph
Qualification(s): Students on a "student visa" entering an undergraduate degree program at the University of Guelph with a record of high academic achievement and extracurricular involvement, and studying full-time. This award is offered for the first year of study.

Amount: Several awards ranging in value from $500 - $6,000

J.D. MacLachlan Scholarship [E0170]

Provided by the family of J.D. MacLachlan. Application not required.

Donor(s): The J.D. MacLachlan Trust
Qualification(s): Student entering the University with the highest admission average.

Amount: 1 award of $1,500

Lincoln Alexander Chancellor’s Scholarship [E0493]

These scholarships, named to honour Lincoln Alexander, Chancellor of the University of Guelph and former Lieutenant Governor of Ontario, on his 80th birthday, are awarded to academically distinguished entering students who are Aboriginal, persons with a disability or members of a racial minority, and who have made significant contributions to their schools and communities and demonstrated the potential to become leaders in society. These scholarships are intended to enhance student diversity and are amongst the most prestigious entrance awards at the University of Guelph. Nominations are made by high school principals and are to be sent to the Associate Registrar, Student Financial Services, by March 1. Two awards of $20,000 ($5,000 annually for 4 years).

Donor(s): Many Donors
Qualification(s): Entering students of academic distinction who are Aboriginal, persons with a disability or members of a racial minority, and who have made significant contributions to their schools and communities and demonstrated the potential to become leaders in society. Financial need may be taken into consideration.

Amount: 2 awards of $20,000

McArthur-Humphries Scholarship [E0183]

Provided by the Wilhelmmina McArthur Humphries Trust Fund. This scholarship is awarded to students entering any undergraduate degree program and are based on the highest admission average. Application not required.

Donor(s): Wilhelmmina McArthur-Humphries Trust Fund
Qualification(s): Students entering semester 1 with a minimum 75% admission average. Preference will be given to those students from Lanark and Wellington Counties. An equal number of awards are available to students from each county. In the case of insufficient eligible applicants from one county, the awards will be given to eligible applicants from the other county.

Amount: 12 awards of $1,000
### P.A. J. Clarke Family Scholarship [E0381]

Paul and Aileen Clarke and their family established the endowment for this entrance scholarship in honour of Paul's father, the late Jack Clarke, a Blenheim area farmer. Apply by letter outlining extracurricular and/or community activities, ensuring that you have completed a Need Assessment Form for Entrance Awards, and submit to Student Financial Services by April 1. Students who have applied to the University for admission will receive information on completing a Need Assessment Form for Entrance Awards from the University early in the calendar year. This award is not tenable with the President's or Lincoln Alexander Chancellor's Scholarship. Annual payments are contingent upon full-time enrolment and maintaining a minimum 70% average on the previous Fall and Winter semesters. One award of $12,000 ($3,000 annually for 4 years).

**Donor(s):** Paul and Aileen Clarke  
**Qualification(s):** Students with a minimum 80% average with a record of leadership and community participation are eligible. Preference will be given to candidates from Blenheim district or Kent County and who were raised, or have worked, on a farm. Students may be contacted to provide special need circumstances if there is a short list of equal candidates.  
**Amount:** 1 award of $12,000

### Phyllis Mary Carpenter Scholarship [E0503]

Established through the generosity of The Carpenter Family Fund, administered by the Hamilton Community Foundation to recognize academic excellence. Application not required.

**Donor(s):** The Carpenter Family Fund, administered by the Hamilton Community Foundation  
**Qualification(s):** Full-time student entering the Environmental Engineering Undergraduate Program from a publicly funded Ontario secondary school. Awarded to the student with the highest entering average admission. Preference will be given to students from the Hamilton or Burlington area.  
**Amount:** 1 award of $1,500

### President's Scholarship [E0238]

The most prestigious entrance awards at the University of Guelph. Twelve scholarships of $20,000 ($5,000 annually), named to honour their donors or distinguished members of the University, are awarded to entering students of academic distinction who have made significant contributions to their schools and communities and demonstrated the potential to become leaders in society. Nomination packages are sent to Canadian high schools each fall. This award is tenable with the University of Guelph Entrance Scholarship, the University of Guelph Accessibility Scholarship or the Registrar's Entrance Scholarship, but no other Entrance Scholarships. High school principals must submit their nominations using the application material sent to the school's Guidance Office in the fall, to the Associate Registrar, Student Financial Services, by March 1.

**Donor(s):** A number of President's Scholarships have been named in honour of the following people and/or donors:  
- **Dick Brown**  
  Two of the scholarships, endowed by Dr. Patrick Lett are awarded to winners whose leadership qualities best reflect those demonstrated by Dick Brown in University Athletics from 1968 to 1988.  
- **Cecil H. Franklin and Ingrid Franklin**  
  In honour of Cecil Franklin, former Chair of the Board of Governors and Honorary Fellow of the University, the University of Guelph has named one of these twelve prestigious entrance awards to recognize his financial contributions and volunteer support to the President's Entrance Scholarship program.  
- **Charles S. Humphrey**  
  In memory of Charles S. Humphrey, a former President of Hart Chemical Company Canada Ltd. and long-time friend, the University has named one of these twelve prestigious entrance awards to recognize his financial contributions through his estate to the President's Entrance Scholarship program.  
- **Jack R. Longstaffe**  
  The University of Guelph has named one of these twelve prestigious entrance awards in memory of Jack R. Longstaffe to recognize his financial contribution through his estate to the President's Entrance Scholarship program.  
- **Burton C. Matthews**  
  The University of Guelph has named one of these twelve prestigious entrance awards in honour of Burton C. Matthews to recognize his insight and leadership in establishing the President's Entrance Scholarship program.  
- **Kathleen and Frederick Metcalf**  
  Mr. and Mrs. F.T. Metcalf of Guelph have endowed this scholarship. After a distinguished career in cable TV, broadcasting and publishing, the late Mr. Metcalf retired as President of Maclean Hunter Ltd. and Chairman of the Board of Maclean Hunter Cable Ltd. He was Honorary Chairman of Maclean Hunter Cable Ltd. and a member of the University of Guelph Heritage Board (1996).  
- **Rol-land Farms Limited**  
  Two of the scholarships are endowed by the four shareholders of Rol-land Farms Limited of Blenheim, Ontario, Hank, Peter, Arthur and Eric Vander Pol and their families. The Vander Pol families are generous supporters of a number of University projects and programs.  
- **Lillian Stewart Usher**  
  The University of Guelph has named one of these twelve prestigious entrance awards in honour of Lillian Stewart Usher a friend of the University to recognize her financial contribution through her estate to the President's Entrance Scholarship program.  
- **Kathleen and Frederick Metcalf**  
  Entering students of academic distinction who have made significant contributions to their schools and communities and demonstrated the potential to become leaders in society.  
**Amount:** 12 awards of $20,000

### The Jack and Lillian MacDonald Scholarship [E0379]

Family, friends, and colleagues of Lillian MacDonald and Dr. Jack MacDonald, Vice-President, Academic, of the University of Guelph from 1986 to 1995, have established a scholarship that recognizes their commitment to increasing the accessibility of post-secondary education to aboriginal persons. Apply by letter to Student Financial Services by April 1.

**Donor(s):** Jack and Lillian MacDonald  
**Qualification(s):** In the first instance, the award will be given to an entering student coming from the Grand River Polytechnical Institute (GRPI) and who has received the highest cumulative average in the Native University Access Program. If there is no entering student in any one year, the scholarship will be awarded to the in-course student who is a graduate of the GRPI who has the highest cumulative average at the University.  
**Amount:** 1 award of $900
### Scholarships and Other Awards, Bachelor of Science in Engineering

#### Entrance Scholarships with Financial Need

<table>
<thead>
<tr>
<th>Scholarship Name</th>
<th>Amount</th>
<th>Qualification(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>W. Penri Morris Memorial Scholarship</strong> [E0430]</td>
<td>1 award of $500</td>
<td>Presented to a student entering semester 1 from the cities of Kitchener and Waterloo who has demonstrated involvement in extracurricular activities who has shown satisfactory academic performance and who has financial need.</td>
</tr>
<tr>
<td><strong>University of Guelph Faculty Association Scholarship</strong> [E0292]</td>
<td>Students entering their first year of post-secondary studies for the first time and have a minimum 85% final admission average.</td>
<td></td>
</tr>
<tr>
<td><strong>University of Guelph Entrance Scholarships</strong> [E0291]</td>
<td>Several awards ranging in value from $1,500 to $3,000</td>
<td></td>
</tr>
</tbody>
</table>

#### University of Guelph Entrance Scholarships [E0291]

This scholarship is based on the final admission average and program of study that is calculated by Admission Services, based on 12U, 12M, or OAC courses. These will be awarded based on the final high school grades that are submitted to the University in July. A minimum 85% final admission average guarantees an award. The scholarship will be applied directly to the student's financial account in two equal payments in the Fall and Winter Semesters. You can view the scholarship amounts at: http://www.uoguelph.ca/studfin/fall_current_merit.shtml. Application not required.

**Donor(s):** University of Guelph  
**Qualification(s):** Students entering their first year of post-secondary studies for the first time and have a minimum 85% final admission average.  
**Amount:** Several awards ranging in value from $1,500 to $3,000

#### University of Guelph Faculty Association Scholarship [E0292]

Award is payable at $750 per annum in the student’s 1st, 3rd, and 5th semester levels, provided a cumulative average of at least a 70% is maintained. To receive the final payment, the recipient would normally be entering the 5th semester level within a period of 3 calendar years from the date of admission. Application not required.

**Donor(s):** University of Guelph Faculty Association  
**Qualification(s):** Students entering an undergraduate degree program at the University of Guelph with the highest admission average who has been a resident in the County of Wellington during the previous twelve months.  
**Amount:** 1 award of $2,250

#### W. Penri Morris Memorial Scholarship [E0430]

Established by the family in memory of Penri Morris, who was killed World War II action in 1944 at the age of 21. Penri grew up on the family fruit farm near Forest, Ontario. After graduating from high school, he joined the Royal Canadian Air Force and was attached to the Royal Air Force Bomber Command as a navigator at the time of this death. Awarded to the student with the highest cumulative academic performance above 75% in all courses of the last year in high school study (full-time or equivalent study). Application not required.

**Donor(s):** Prof. Rosalina Morris  
**Qualification(s):** Students entering first year of any undergraduate program from North Lambton Secondary School in Forest, Ontario, in their absence, from Lambton County, and their absence, from Ontario.  
**Amount:** 1 award of $1,000

#### Entrance Scholarships with Financial Need

<table>
<thead>
<tr>
<th>Scholarship Name</th>
<th>Amount</th>
<th>Qualification(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bill Klopp Memorial Award</strong> [E0150]</td>
<td>1 award of $500</td>
<td>Presented to a student entering semester 1 from the cities of Kitchener or Waterloo who has demonstrated involvement in extracurricular activities who has shown satisfactory academic performance and who has financial need.</td>
</tr>
</tbody>
</table>

#### Bill Klopp Memorial Award [E0150]

Priority will be given to a student from Kitchener-Waterloo Collegiate and Vocational Institute. Apply by letter, to Student Financial Services, outlining extracurricular activities and by completing the online Entrance Financial Need Assessment Application (N.A.F) by May 1. Students should complete the Entrance Financial Need Assessment application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student).

**Donor(s):** Ross and Mary Lou Klopp  
**Qualification(s):** Students entering their first year of post-secondary studies for the first time and have a minimum 85% final admission average.  
**Amount:** 1 award of $500

#### Kenneth O. Hammill-Blount Canada Scholarship [E4356]

Established in honour of Kenneth Osborne Hammill, a long time friend of the University and retired plant manager of Blount Canada, with the assistance of the Ontario government’s OSOTF program. The winner is chosen from the list of alternates for the President’s Scholarships. President’s Scholarship nominees should complete the online Entrance Financial Need Assessment application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student). Deadline to submit the application is May 1. ACCESS AWARD.

**Donor(s):** The Blount Foundation, Inc.  
**Qualification(s):** Students from the Province of Ontario, with demonstrated financial need, entering one of the following programs on an annual rotation: B.A. in 98/99, then B.A.Sc., B.Comm., B.S.C., B.S.C.(Agr.), B.S.C.(Eng.), B.S.C.(Env.). Recipients must maintain a B+ average or higher, continue to demonstrate financial need and be full-time students in order to qualify for subsequent installments. During the summer after the 3rd year, the scholars will propose, to Student Financial Services, an enrichment experiential undertaking related to the student’s field of study; the grant application should include a detailed budget. A grant of up to $1,200 is available to support the undertaking, subject to continuing financial need and approval of the proposal by Student Financial Services. Upon completion, the student will write a report of the experience to Student Financial Services. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 1 award of $9,600, payable in 8 payments of $1,200

#### Registrar’s Entrance Scholarships [E0384]

Established by the University of Guelph to support entering undergraduate students with identified financial need. Students should complete the online Entrance Financial Need Assessment application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student). Deadline to submit the application is May 1. ACCESS AWARD.

**Donor(s):** University of Guelph  
**Qualification(s):** Students entering a full-time undergraduate program on the basis of financial need and academic merit.  
**Amount:** 500 awards of $2,000

#### Rol-Land Farms Scholarship [E4519]

Established by Rol-Land Farms, with the assistance of the Ontario government’s OSOTF program, to attract entering students who might otherwise not be able to attend university for financial reasons. Students should complete the online Financial Need Assessment application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student). Deadline to submit the application is May 1. ACCESS AWARD.

**Donor(s):** Rol-Land Farms  
**Qualification(s):** Students entering a full-time undergraduate degree program with demonstrated financial need and a minimum 80% cumulative average. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 13 awards of $2,000

#### University of Guelph Accessibility Scholarship [E3038]

Established by the University of Guelph to support entering undergraduate students with identified financial need. Students should complete the online Entrance Financial Need Assessment application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student). Deadline to submit the application is May 1. ACCESS AWARD.

**Donor(s):** University of Guelph  
**Qualification(s):** Outstanding entering undergraduate degree students with demonstrated financial need, entering one of the following programs on an annual rotation: B.A. in 98/99, then B.A.Sc., B.Comm., B.S.C., B.S.C.(Agr.), B.S.C.(Eng.), B.S.C.(Env.). Recipients must maintain a B+ average or higher, continue to demonstrate financial need and be full-time students in order to qualify for subsequent installments. During the summer after the 3rd year, the scholars will propose, to Student Financial Services, an enrichment experiential undertaking related to the student’s field of study; the grant application should include a detailed budget. A grant of up to $1,200 is available to support the undertaking, subject to continuing financial need and approval of the proposal by Student Financial Services. Upon completion, the student will write a report of the experience to Student Financial Services. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 1 award of $9,600, payable in 8 payments of $1,200

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2005-2006 University of Guelph Undergraduate Calendar  
Last Revision: October 18, 2005
IX. Scholarships and Other Awards, Bachelor of Science in Engineering

Entrance Awards with Financial Need

Harvey Graham Bursary [E3030]
Provided by Harvey Graham (OAC ’39). Students should complete the online Entrance Financial Need Assessment application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student). Deadline to submit the application is May 1.

Donor(s): Harvey Graham, OAC ’39
Qualification(s): Student who has demonstrated financial need with preference given to a student who comes from a working farm. Students graduating from Lindsay C. V. I., Fenelon Falls Secondary School, or L. E. Weldon Secondary School will be considered. Each application must be accompanied by a reference letter from the Reeve of the student’s home township.

Amount: 1 award of $1,700

International Student Entrance Bursaries [E3043]
In support of the University’s strategic direction of internationalism, entrance bursaries are available each fall to assist some of our international students entering an undergraduate degree program at the University of Guelph. Students who have applied to the University of Guelph will receive an application form.

Donor(s): University of Guelph
Qualification(s): Students on a student visa entering an undergraduate degree program at the University of Guelph with demonstrated financial need.

Amount: Several awards of $1,000, Several awards of $3,000

Justine Eves Learning Disability Accessibility Bursaries [E3057]
In memory of Justine Eves who was dyslexic and died tragically in an automobile accident in 1995, the Justine Eves Foundation together with the University of Guelph provides these awards to entering Undergraduate students who have a learning disability and who has demonstrated financial need. Students should complete the online Entrance Financial Need Assessment application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student). Deadline to submit the application is May 1.

Donor(s): Justin Eves Foundation
Qualification(s): Any entering undergraduate student that has financial need and a documented learning disability as defined by the Ontario Psychological Association.

Amount: 4 awards of $3,000

Robert Arthur Stewart Bursaries [E3272]
Established in memory of Mrs. Elsa H. Stewart of Pakenham, Ontario. Mr. Stewart graduated from the Ontario Agricultural College in 1933 and Mrs. Stewart from Macdonald Institute in 1932. Applicants for these bursaries should have a good academic record and an active interest in community affairs. A recommendation from the County agricultural representative or the secondary school principal is required and should be sent to Student Financial Services by April 1. Students should complete the online Entrance Financial Need Assessment application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student).

Donor(s): The Estate of Mrs. H. Stewart
Qualification(s): Students from the Ontario Counties of Lanark and Renfrew, and the Regional Municipality of Ottawa-Carleton, entering the 1st semester of a degree program at the University of Guelph.

Amount: 12 awards of $500

In-course Scholarships

Association of Professional Engineers Medal [C0019]
Application not required.

Donor(s): Professional Engineers of Ontario
Qualification(s): Graduate of an accredited engineering program, obtaining the highest average in the practical work and written examinations of the year.

Amount: 1 Gold medal

Association of Professional Engineers of Ontario Scholarships [10018]
Apply to the Chair of the Awards Committee, School of Engineering, by March 31.

Donor(s): Professional Engineers of Ontario
Qualification(s): Students in their 2nd and 3rd years of an accredited engineering program. One award is given for high academic standing and the other for a combination of academic excellence and demonstrated leadership qualities.

Amount: 2 awards of $1,000

Babcock & Wilcox Design Award [10350]
This award is available to facilitate extramural, independent participation in Ontario and National engineering competitions. Apply in writing to Chair, Awards Committee, School of Engineering by January 31.

Donor(s): Babcock and Wilcox, International Division
Qualification(s): Undergraduate engineering student.

Amount: 1 award of $500

Bill Taylor Memorial Scholarship [10280]
Applications to include a supporting letter from a coach or intramural supervisor. Apply to Student Financial Services by April 1.

Donor(s): AMF Canada Ltd.
Qualification(s): Full-time student that has completed a minimum of 7.5 credits, but no more than 17.5 credits in the Winter term who has a cumulative 80% average or who is in the top 10% of his/her program. The recipient must have demonstrated responsibility and leadership qualities through participation in intramural or intercollegiate athletics.

Amount: 1 award of $900

C.G.A. Ontario Award for Excellence [C0025]
Apply by April 1 to Student Financial Services indicating intent to pursue the CGA program of professional studies. One award of $150 plus a credit equalling one year's tuition and course fees towards the CGA program (approximate value: $2,000)

Donor(s): Certified General Accountants Association of Ontario
Qualification(s): Graduating student who has a minimum cumulative average of 77% in Financial Accounting AGEC*2220; Management Accounting AGEC*2230; and Intermediate Accounting AGEC*3330.

Amount: 1 award of $150, plus 1 year tuition and course fee towards the CGA program. (approximate value of $2,000)

Canadian Federation of University Women/Guelph Scholarship [10294]
The Guelph Chapter of the Canadian Federation of University Women provides this annual scholarship. Application not required.

Donor(s): The Guelph Chapter of the Canadian Federation of University Women
Qualification(s): Female student registered in Year 3 in the Fall semester in either B.SC.(Eng.), B.A. (College of Physical and Engineering Science) or B.SC. (College of Physical and Engineering Science) who has the highest cumulative average. Preference will be given to a student who has graduated from a secondary school in Wellington County.

Amount: 1 award of $2,000

CFRU Volunteer Award [10215]
Apply to the CFRU Board of Governors by April 30.

Donor(s): Station Manager, CFRU
Qualification(s): Applicants must be registered or graduating from the University of Guelph and have volunteered at CFRU for at least one year. The recipients will be selected on the basis of academic performance and volunteer work at CFRU.

Amount: 2 awards of $250

City of Guelph 175th Anniversary Awards [10515]
Provided by the Guelph Community Foundation, in celebration of the 175th anniversary of the City of Guelph in 2002, as an investment for future generations. Apply to Student Financial Services, by October 7 of the second year of study, with a letter describing Guelph community and University community volunteer activities and extracurricular activities, a completed Need Assessment Form, and two reference letters not to exceed two pages in length from individuals familiar with the volunteer and/or community service contributions. Award may be held only once.

Donor(s): The Guelph Community Foundation
Qualification(s): Undergraduate degree students with more than 5.0 credits and less than 10.5 credits of full-time study must have maintained a cumulative 70% average in all courses completed (5.0 credits or more) in the first year study and have demonstrated leadership and financial need. Applicants must be graduates of a City of Guelph high school and be Canadian citizens or permanent residents at the time of application. Selection will include equally weighted consideration of academic performance, leadership both on and off campus and financial need.

Amount: 1 award of $1,000
IX. Scholarships and Other Awards, Bachelor of Science in Engineering

Class of 1970 Scholarship [I0424]
Established by the Silver Anniversary celebrants to commemorate the 25th anniversary of the University Class of 1970. This award rotates among all six colleges on the main campus. The appropriate College Award Committee selects the candidate each Fall semester and the candidate is announced each October. Application not required.

Donor(s): Class 1970: 25th Reunion Gift
Qualification(s): Outstanding student in any degree program who has attained at least an 80% average in two consecutive semesters resulting in placement on the Deans’ Honours List.
Amount: 1 award of $1,400

College of Physical Engineering Science Academic Scholarship [I0073]
Application not required.

Donor(s): College of Physical and Engineering Science
Qualification(s): Student graduating with the highest cumulative average from an honours B.SC. program in a Physical and Engineering Science area.
Amount: 1 award of $250, 1 Commemorative plaque

College of Physical Engineering Science Graduation Prize [C0075]
The winner will be selected in May from all students who have completed the program in the previous twelve months. Application not required. One award of $250 and a commemorative plaque.

Donor(s): College of Physical and Engineering Science
Qualification(s): Recipients will be selected on the basis of a high average (minimum 80% average required) in courses normally taken in Year 3.
Amount: 1 award of $250

Collins Barrow Award [I0040]
Offered by Collins Barrow, a national firm of Chartered Accountants. Awarded in the Winter semester. Application not required.

Donor(s): Collins Barrow Chartered Accountants
Qualification(s): Student with the highest grade in course AGEC*3330, Intermediate Accounting, in the Fall semester. In the event of a tie, the scholarship will be given to the student with the highest cumulative average in their program.
Amount: 1 award of $500

CSCE Environmental and Water Resources Engineering Scholarships [I0549]
Established by the School of Engineering in recognition of the conference entitled, An International Perspective on Environmental Engineering, organized and co-sponsored in 2002 by the School and proposed by the Environmental Engineering Division of the Canadian Society for Civil Engineering (CSCE) in co-operation with the Environmental and Water Resources Institute of the American Society of Civil Engineering. Application not required.

Donor(s): School of Engineering
Qualification(s): Full-time student registered in either Environmental Engineering or Water Resources Engineering with the highest cumulative average who has completed a minimum of 8.5 credits at the beginning of semester 4.
Amount: 1 award of $400

David F. Boyes Apiculture Scholarship [I0031]
Established in memory of David Boyes a technician in the Apiculture Field Laboratory. Application not required.

Donor(s): The Apiculture Club
Qualification(s): Student registered in the Fall semester who achieves high academic standing in Introductory Apiculture (ENVB*2210) in the previous year, demonstrates an interest in apiculture and who has participated in extracurricular activities.
Amount: 1 award of $150

Deans’ Scholarships [I0323]
Offered by the Board of Governors. Recipients will be selected by each of the College Awards Committees. Winners will be notified in the Fall semester. Application not required.

Donor(s): Board of Governors
Qualification(s): Students registered in any degree program. The primary academic criteria is placement on the Deans’ Honours List for two consecutive semesters, excluding semesters 7 and 8, in the previous Fall/Winter/Spring sequence.
Amount: 150 awards of $1,000

E.B. MacNaughton Convocation Prize [C0171]
Established by the College of Physical and Engineering Science to honour Earl B. MacNaughton, former head of the Department of Physics and founding Dean of the College of Physical Science. Application not required. One award of a plaque-mounted medal and $250.

Donor(s): The College of Physical and Engineering Science
Qualification(s): The College of Physical and Engineering Science nominee for the Winegard Medal.
Amount: 1 award of $250, 1 Plaque-mounted medal

Evelyn Matheson Pepper Memorial Scholarship [I0538]
The daughters and grandchildren of Evelyn Matheson Pepper, a Mac ’33 graduate, provide this scholarship. Application not required.

Donor(s): Ms. Barbara Stuart and Ms. Susan Pepper
Qualification(s): Student who achieves the highest grade in the course FRHD*3200, Practicum in Child, Youth and Family I, offered by the department of FRAN.
Amount: 1 award of $1,000

George A. Gray OAC ’51 Varsity Scholarships [I0487]
Established in memory of George Gray, OAC 51, a Guelph football lineman and a great player of the game. Apply to Student Financial Services by October 7 providing a covering letter describing on- and off-campus academic and extra-curricular activities and a completed Need Assessment Form. Awarded at the annual Athletics Banquet.

Donor(s): Mrs. George A. Gray
Qualification(s): Undergraduate degree or diploma students who are members of varsity teams and in the second, third, fourth or fifth year of full-time study with a minimum 70% average in all courses completed in the previous year of study and have demonstrated leadership. Selection will include equally weighted consideration of academic performance, leadership and financial need. Preference will be given to members of the varsity football team. Examples of leadership may include academic tutoring, mentoring team mates, assisting in the organization and promotion of varsity and/or intramural athletics, participation on university committees, such as in residences, on Senate or in Colleges, and similar off-campus activities. Students may receive the award up to four times.
Amount: 2 awards of $1,250

Governor General’s Medal [C0044]
Established by the Office of the Governor General of Canada. Application not required.

Donor(s): The Chancellery
Qualification(s): Restricted to those undergraduate students in any degree program who are graduating in June, or who have graduated in the previous two convocations, with the highest cumulative average.
Amount: 1 Silver medal

Guelph Varsity Athletic Accessibility Scholarship [I0518]
Established by alumni and friends of the University of Guelph. Apply to Student Financial Services by October 7 providing a covering letter describing on- and off-campus academic and extra-curricular activities and a completed Need Assessment Form. Awarded at the annual Athletics Banquet.

Donor(s): Alumni and friends of the University of Guelph
Qualification(s): Undergraduate degree or diploma students, with at least 5.0 credits and less than 20.5 credits, who are members of a varsity athletic team and who have demonstrated financial need, are eligible to apply. Students must have maintained at least a 70% cumulative average in all courses completed in the previous year of study (minimum 3.0 credits). Selection will be based upon equally weighted consideration of academic performance and evidence of leadership qualities. Students may receive the award up to four times.
Amount: 2 awards of $1,250

Evelyn Matheson Pepper Memorial Scholarship [I0538]
The daughters and grandchildren of Evelyn Matheson Pepper, a Mac ’33 graduate, provide this scholarship. Application not required.

Donor(s): Ms. Barbara Stuart and Ms. Susan Pepper
Qualification(s): Student who achieves the highest grade in the course FRHD*3200, Practicum in Child, Youth and Family I, offered by the department of FRAN.
Amount: 1 award of $1,000

George A. Gray OAC ’51 Varsity Scholarships [I0487]
Established in memory of George Gray, OAC 51, a Guelph football lineman and a great player of the game. Apply to Student Financial Services by October 7 providing a covering letter describing on- and off-campus academic and extra-curricular activities and a completed Need Assessment Form. Awarded at the annual Athletics Banquet.

Donor(s): Mrs. George A. Gray
Qualification(s): Undergraduate degree or diploma students who are members of varsity teams and in the second, third, fourth or fifth year of full-time study with a minimum 70% average in all courses completed in the previous year of study and have demonstrated leadership. Selection will include equally weighted consideration of academic performance, leadership and financial need. Preference will be given to members of the varsity football team. Examples of leadership may include academic tutoring, mentoring team mates, assisting in the organization and promotion of varsity and/or intramural athletics, participation on university committees, such as in residences, on Senate or in Colleges, and similar off-campus activities. Students may receive the award up to four times.
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Guelph Varsity Athletic Accessibility Scholarship [I0518]
Established by alumni and friends of the University of Guelph. Apply to Student Financial Services by October 7 providing a covering letter describing on- and off-campus academic and extra-curricular activities and a completed Need Assessment Form. Awarded at the annual Athletics Banquet.

Donor(s): Alumni and friends of the University of Guelph
Qualification(s): Undergraduate degree or diploma students, with at least 5.0 credits and less than 20.5 credits, who are members of a varsity athletic team and who have demonstrated financial need, are eligible to apply. Students must have maintained at least a 70% cumulative average in all courses completed in the previous year of study (minimum 3.0 credits). Selection will be based upon equally weighted consideration of academic performance and evidence of leadership qualities. Students may receive the award up to four times.
Amount: 2 awards of $1,250
Helen Grace Tucker Design Awards [C0365]

Established by a bequest of Helen Grace Tucker, 65 Engineering, who was co-inventor of a number of patented sensor and control components and co-author of many international publications. Application not required.

**Donor(s):** Estate of Helen Grace Tucker, OAC

**Qualification(s):** Graduating student in each of the four engineering programs. The winner will be selected on the basis of best performance (at least 80% in ENGG*2100, ENGG*3100 and the final design course).

**Amount:** 4 awards of $500

John Deere Canada Ltd. Environmental Engineering Scholarship [I0548]

Established by the generosity of the John Deere Corporation to a full-time environmental engineering student who has completed a minimum of 17.0 credits (with a minimum of 5.0 credits in the previous year). Apply before September 15 with a letter and a resume to the Chair of the School of Engineering Awards Committee.

**Donor(s):** John Deere Foundation of Canada

**Qualification(s):** Selection will be based on a combination of academic achievement and contributions to the community, the University, and the School of Engineering through the participation in and leadership of extracurricular activities.

**Amount:** 2 awards of $1,000

John Eccles Scholarship [I0093]

Nominations, accompanied by appropriate résumés, are to be submitted to Student Financial Services by April 1.

**Donor(s):** Student Housing Services

**Qualification(s):** Full-time student registered in semester 2, 3, 4, 5 or 6 and living in residence in the Winter semester who has a cumulative 80% average or who is in the top 10% of his/her program. The recipient must have demonstrated responsibility and leadership qualities through participation in residence related activities. Residence Life Staff and paid members of Interhall Council and Hall Councils are not eligible.

**Amount:** 1 award of $600

Kenneth W. Hammond Award [I0045]

The evaluation of the student will be based on the final essay in the "Environmental Perspectives and Human Choice: 5000 Days" course. The selection committee will be comprised of 4 persons: the donor, the Director of the Arboretum, the Dean of Physical and Engineering Science and the Dean of Biological Science. Application not required.

**Donor(s):** Kenneth W. Hammond

**Qualification(s):** Student who has best demonstrated an understanding of the world's resource situation and its proper use by humankind.

**Amount:** 1 award of $1,000

Kip Hunter Prize [I0139]

For the best essay, written by an undergraduate in a philosophy course. The essay may be either a required assignment for a course (in which case either the student or the instructor may submit it) or it may be specially prepared for the competition. Submission of essays is to the Chair, Department of Philosophy, by the end of the 12th week of the Winter semester.

**Donor(s):** Faculty, students and staff of the Philosophy Department

**Qualification(s):** Any undergraduate who has registered for a philosophy course during the academic year in which the prize is awarded.

**Amount:** 1 Book prize

Knut Karl Grimstad Memorial Scholarship [I0116]

Application not required.

**Donor(s):** Mrs. Anne Grimstad

**Qualification(s):** Outstanding students majoring in Water Resources Engineering. Scholarships are based on academic proficiency in semesters 5 and 6, and on participation in extracurricular activities associated especially with the profession of engineering.

**Amount:** 2 awards of $600

Lange and Prokipcak Chemistry Scholarship [I0528]

This scholarship was established by Professor Gordon L. Lange, Professor Joe M. Prokipcak, friends and colleagues. Professors Gordon L. Lange and Joe M. Prokipcak were valued members of the chemistry Faculty who retired in 2001. Their excellence in teaching was recognized within the university and nationwide, winning them a total of eleven teaching awards. Application not required.

**Donor(s):** Professor Gordon L. Lange, Professor Joe M. Prokipcak and friends and colleagues

**Qualification(s):** Student in CPES with the highest average grade in CHEM*1040,1050 and 2700 who has completed a minimum of 10.0 credits up to a maximum of 14.75 credits.

**Amount:** 1 award of $1,000

Leonard Conolly Exchange Student Scholarship [I0446]

Established by students, faculty, and staff to honour Prof. Leonard Conolly, professor of drama, Chair of the Department of Drama, 1981-88, and Associate Vice-President Academic, 1988-1992. Apply to the Centre for International Programs by April 5, for visiting during the subsequent Fall or Winter semesters.

**Donor(s):** Students, staff and faculty of Dr. Leonard Conolly

**Qualification(s):** Full-time visiting exchange undergraduate or graduate student, registered at Guelph for at least one semester, from any country in the South (a list of eligible countries and exchange partner universities is available in the Centre for International Programs). Selection, by the Centre for International Programs, will be based on assessment of (a) a one-page submission describing the significance of the student visiting Guelph to the program of study at the partner exchange university (b) two faculty references of one-page each, and (c) consistent high performance in the course work completed, as documented by a transcript of program grades to date, submitted by the home university.

**Amount:** 1 award of $1,000

OAC '55 Scholarships [I0064]

Provided by the class of OAC '55. Apply to Student Financial Services by April 1.

**Donor(s):** OAC '55

**Qualification(s):** Students who are registered in any OAC degree program or students enrolled in the B.Sc.(Eng.) program and have completed semester 4. Recipients will have made an outstanding contribution to College life through academic proficiency and participation in extracurricular activities and can be considered to have done the most for the College, for fellow students and in their personal development. Recipients must have a 70% minimum cumulative average.

**Amount:** 1 award of $2,000

Peter Mann Award for Embryology [I2032]

Established by the Wilken family in memory of Stephanie Wilken, BA 1995. Apply to Student Financial Services with letter indicating the kind and extent of volunteer activities at the Wellness Centre by October 1. Selection committee is the Senate Committee on Awards on the recommendation of the Student Wellness Educator at the Wellness Centre.

**Donor(s):** Bev and Darlene Wilken

**Qualification(s):** Student registered in any undergraduate degree program, who has been a volunteer for at least two semesters at the Wellness Centre. The recipient will be selected on the basis of academic performance in all courses to date and volunteer work at the Wellness Centre.

**Amount:** 1 award of $1,000

Taggart Scholarship in Biological Engineering [I0278]

Apply by letter and a resume to the Chair of the School of Engineering Awards Committee by October 1.

**Donor(s):** Ontario Agriculture College Fund

**Qualification(s):** Student who has completed 17.25 credits of the Biological Engineering in the B.Sc.(Eng.) program. Academic standing and demonstration of leadership qualities will be used to select the recipient from eligible candidates.

**Amount:** 1 award of $600

The Jack and Lillian MacDonald Scholarship [E0379]

Established by friends and colleagues of the MacDonald family. Apply by letter to Student Financial Services by April 1.

**Donor(s):** Jack and Lillian MacDonald

**Qualification(s):** In the first instance, the award will be given to an entering student coming from the Grand River Polytechnical Institute (GRPI) and who has received the highest cumulative average in the Native University Access Program. If there is no entering student in any one year, the scholarship will be awarded to the in-course student who is a graduate of the GRPI who has the highest cumulative average at the University.

**Amount:** 1 award of $900
## IX. Scholarships and Other Awards, Bachelor of Science in Engineering

### 3M Canada Scholarships [I0564]
- **Provided by**: 3M Canada. Apply to Student Financial Services by October 7 with a completed Financial Need Assessment Application.
- **Donor(s)**: 3M Canada Company
- **Qualification(s)**: Students entering Year 4 (ie. having completed a minimum of 15.0 credits) with demonstrated financial need and high academic achievement.
- **Amount**: 2 awards of $1,000

### CPES Dean’s Scholarship - ACCESS [I4527]
- Established by a number of industrial, commercial and public sector corporations, with the assistance of the Ontario government’s OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. This award may be held once only. ACCESS AWARD
- **Donor(s)**: Established by a number of industrial, commercial and public sector corporations
- **Qualification(s)**: Students with demonstrated financial need registered in any major program in C.P.E.S. in, or beyond, second year. A minimum 80% cumulative average is required. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).
- **Amount**: 1 award of $750

### Earl B. MacNaughton Entrance Scholarships [I4172]
- Established by friends, faculty, staff, alumni and students of the University to honour Earl B. MacNaughton, former head of the Department of Physics and founding Dean of the College of Physical and Engineering Science, with the assistance of the Ontario government’s OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Fall semester. ACCESS AWARD
- **Donor(s)**: Earl B. MacNaughton
- **Qualification(s)**: Students currently registered in the final year of an honours program in the College of Physical and Engineering Science with high academic standing, demonstrated financial need, and who have completed a minimum of 15.0 credits. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).
- **Amount**: 2 awards of $1,000

### Eleanor Morgan & Bill Archibald Scholarships [I4540]
- The family of Eleanor and Bill Archibald, with the assistance of the Ontario government’s OSOTF program, provide this scholarship in memory of their parents. Apply with a completed Need Assessment Form and a letter outlining community involvement to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD
- **Donor(s)**: The Family of Eleanor & Bill Archibald
- **Qualification(s)**: Students registered in any program with a minimum of 5.0 credits who have cumulative 70% average, has demonstrated community involvement, and financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).
- **Amount**: 1 award of $1,000

### Erin Demers Memorial Scholarship [I0406]
- The family and friends of Erin Demers, a first-year student at the University of Guelph who was tragically killed in a car accident in 1996, have established this scholarship in her memory. Apply to Student Financial Services by April 1 with a completed Need Assessment Form, along with one supporting reference letter from a Residence Assistant, Residence Manager, or Residence Officer.
- **Donor(s)**: Family and friends of Erin Katrina Demers
- **Qualification(s)**: A student who has resided in an on-campus residence during the first semester and who has a cumulative average of 70%. This award is payable in the second year (ie completed 5.0 course credits) of study. Preference will be given to students with demonstrated financial need and who have participated significantly in extracurricular activities.
- **Amount**: 1 award of $1,000
### IX. Scholarships and Other Awards, Bachelor of Science in Engineering

#### Euclid-Hitachi Scholarships [I4517]

Established by Euclid-Hitachi of Canada Ltd., with the assistance of the Ontario government’s OSOTF program, to assist students with financial need to continue their studies as full-time students. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

**Donor(s):** Euclid-Hitachi of Canada Ltd.

**Qualification(s):** Students with a minimum cumulative average of 70% with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 2 awards of $1,500

#### Graham Family Incentive Scholarship [I4506]

Provided by Harvey Graham (OAC ‘39) with the assistance of the Ontario government’s OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

**Donor(s):** Harvey Graham OAC ’39

**Qualification(s):** Students entering the fourth year of a four year degree program, maintaining at least a 70% program average and demonstrating financial need, who have previously received the Harvey Graham Bursary. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 1 award of $5,000

#### Jay Majithia Scholarship [I4518]

Provided to honour Professor Jay Majithia, in recognition of his support and leadership while a faculty member in the Department of Computing and Information Science, by Margaret Middleton, C.P.E.S. ’86 with the assistance of the Ontario government’s OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services by October 7 and if applicable, attach a letter stating research interest and involvement. Awarded in the Winter semester. ACCESS AWARD

**Donor(s):** Mrs. Margaret L. Middleton

**Qualification(s):** Computer and Information Science students with demonstrated financial need who have a minimum cumulative program average of 70%. Preference will be given to students who are applying for, or participating in, departmental research, including a special project or an independent study option. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 2 awards of $500

#### Tarra Lynn Giuliani Memorial Award [I3075]

In memory of Tarra Lynn Giuliani, a bright young woman, who did not let her blindness stand in the way of her studies at the University of Guelph. Apply to the Centre for Students with Disabilities by November 25.

**Donor(s):** The Giuliani Family

**Qualification(s):** Most academically promising applicant with a demonstrated disability and having financial need.

**Amount:** 1 award of $500

#### In-course Awards with Financial Need

<table>
<thead>
<tr>
<th>Scholarship</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bette Stephenson Accessibility Bursary [I3054]</strong></td>
<td>In recognition of the work of Dr. Bette Stephenson in supporting students with learning disabilities, the University of Guelph offers bursaries to students who have demonstrated financial need and who have a learning disability. These bursaries will be used to offset the costs of a required assessment, or the purchase of a computer that is required to support their learning needs. Apply to Student Financial Services, with a completed Need Assessment Form by October 7. Awarded in the Winter semester.</td>
</tr>
<tr>
<td><strong>Donor(s):</strong> University of Guelph</td>
<td><strong>Qualification(s):</strong> Undergraduate students who have demonstrated financial need and who have a learning disability. Students must be full-time (as defined by OSAP regulations) and Canadian citizens or permanent residents. <strong>Amount:</strong> 3 awards to a maximum of $1,500</td>
</tr>
<tr>
<td><strong>Brinson Partners Inc. Bursaries [I3526]</strong></td>
<td>Brinson Partners Inc., with the assistance of the Ontario government’s OSOTF program, has established these bursaries. Apply with a completed need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD</td>
</tr>
<tr>
<td><strong>Donor(s):</strong> Brinson Partners Inc.</td>
<td><strong>Qualification(s):</strong> Students with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards). <strong>Amount:</strong> 2 awards of $1,500</td>
</tr>
<tr>
<td><strong>Burnbrae Farms Bursaries [I3525]</strong></td>
<td>Established by Burnbrae Farms, with the assistance of the Ontario government’s OSOTF program to assist students with financial need to continue their studies as full-time students. Apply with a completed need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD</td>
</tr>
<tr>
<td><strong>Donor(s):</strong> Burnbrae Farms</td>
<td><strong>Qualification(s):</strong> Full-time students with demonstrated financial need. Preference will be given to students with a demonstrated interest in poultry science. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards). <strong>Amount:</strong> 2 awards of $1,500</td>
</tr>
<tr>
<td><strong>Class of ’72: 25th Reunion Bursaries [I3512]</strong></td>
<td>Established by the Class of ’72: 25th Reunion Fund with the assistance of the Ontario government’s OSOTF program to support students who wish to study full-time. Apply to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD</td>
</tr>
<tr>
<td><strong>Donor(s):</strong> Class of ’72: 25th Reunion</td>
<td><strong>Qualification(s):</strong> Full-time students with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards). <strong>Amount:</strong> 3 awards of $1,000</td>
</tr>
<tr>
<td><strong>Credit Valley Conservation Authority Foundation Bursary [I3007]</strong></td>
<td>Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester.</td>
</tr>
<tr>
<td><strong>Donor(s):</strong> Credit Valley Conservation Authority Foundation</td>
<td><strong>Qualification(s):</strong> Full-time student registered in B.A. Geography, B.SC. Geographic Information Systems and Environmental Analysis, B.SC. Engineering (Water Resource Engineering), B.SC.(Agr.) Agroecosystem Management or B.SC.(Env.) Geography majors with demonstrated financial need. Preference will be given to a student who resides in a member municipality of the Credit Valley Authority Foundation. <strong>Amount:</strong> 1 award of $500</td>
</tr>
<tr>
<td><strong>Elizabeth Burton Bursaries [I3503]</strong></td>
<td>Mrs. Elizabeth Burton, with the assistance of the Ontario government’s OSOTF program, provides bursaries to students with demonstrated financial need. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD. A number of awards totalling $2,900.</td>
</tr>
<tr>
<td><strong>Donor(s):</strong> Mrs. Elizabeth Burton</td>
<td><strong>Qualification(s):</strong> Students in second, third or fourth year with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards). <strong>Amount:</strong> Several awards of $2,900</td>
</tr>
<tr>
<td><strong>Gryphon Investment Council Bursaries [I3513]</strong></td>
<td>Established by Gryphon Investment Counsel, with the assistance of the Ontario government’s OSOTF program. Awarded in the Winter semester. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD</td>
</tr>
<tr>
<td><strong>Donor(s):</strong> Gryphon Investment Council Inc.</td>
<td><strong>Qualification(s):</strong> Full-time students with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards). <strong>Amount:</strong> 2 awards of $1,500</td>
</tr>
<tr>
<td><strong>Guelph Compassionate Health Bursary [I3061]</strong></td>
<td>This bursary has been established and approved by the Student Health and Dental Committee to assist students facing unforeseen health needs above and beyond the benefits offered through the mandatory University of Guelph student health plan. Submit a Financial Need Assessment application accompanied by the physician recommendation, cost estimates and physician contact information to the Awards Officer, Student Financial Services. The application will be reviewed throughout the semester to handle emergenices immediately.</td>
</tr>
<tr>
<td><strong>Donor(s):</strong> Student Health and Dental Plan Reserve</td>
<td><strong>Qualification(s):</strong> All currently registered students at the University of Guelph that are covered under the University of Guelph mandatory Student Health Plan. The student must require treatment for a condition not currently or completely covered by the Student Health Plan. <strong>Amount:</strong> Several varies to a maximum $1,500</td>
</tr>
<tr>
<td>Scholarship Program</td>
<td>Details</td>
</tr>
<tr>
<td>---------------------------------------------</td>
<td>-------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Irvine and Grace Black Memorial Bursary</td>
<td>Established in memory of Irvine and Grace Black, by friends and family</td>
</tr>
<tr>
<td></td>
<td>who recognize their many contributions to young people. Irvine, a well-</td>
</tr>
<tr>
<td></td>
<td>known sheep breeder, was a judge at College Royal and the Royal Winter</td>
</tr>
<tr>
<td></td>
<td>Fair for over fifty years, and Grace was active in the Women's Institute</td>
</tr>
<tr>
<td></td>
<td>and the Fergus Fall Fair. Apply to Student Financial Services</td>
</tr>
<tr>
<td></td>
<td>with a completed Need Assessment Form and a letter outlining involvement</td>
</tr>
<tr>
<td></td>
<td>in the 4-H Club and/or a Women's Institute by October 7. Awarded in the</td>
</tr>
<tr>
<td></td>
<td>Winter semester.</td>
</tr>
<tr>
<td>Qualification(s):</td>
<td>Full-time undergraduate students registered in any degree program</td>
</tr>
<tr>
<td></td>
<td>with demonstrated financial need. Preference will be given to applicants</td>
</tr>
<tr>
<td></td>
<td>who are, or have been, active in the 4-H Club and/or a Women's Institute</td>
</tr>
<tr>
<td>Amount:</td>
<td>1 award of $500</td>
</tr>
</tbody>
</table>

| Howard and Myrtle Rogers Bursaries [I3537]   | Provided by the Estate of Howard and Myrtle Rogers, with the assistance of |
|                                             | the Ontario government's OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD |
| Qualification(s):                           | Students with demonstrated financial need. Preference will be given to    |
|                                             | students from Wellington County. Students are encouraged to apply for an  |
|                                             | award in each year of study. The award may have been held in previous     |
|                                             | years but students must demonstrate on-going financial need. Additionally,|
|                                             | students must meet the government-mandated terms for receipt of an OSOTF  |
|                                             | award (see General Statements on Awards).                                |
| Amount:                                     | 10 up to $2,000                                                         |

| International Emergency Medical Aid Assistance [I3059] | The University of Guelph provides support to International undergraduate students that are faced with unexpected, or unforeseen financial shortfalls due to a medical issue not covered by UHIP or the Student Dental/Medical insurance plans. Students should apply to the International Student Advisor, in the Centre for International Programs office, by completing an International Student Financial Need Assessment Form and submitting documentation to support the medical issue. These bursaries are awarded on an on-going basis. |
| Qualification(s):                                    | Any International student registered in a degree program at the University of Guelph with a minimum registration of 1.50 course credits. |
| Amount:                                              | Several awards of varying amounts                                       |

| International Student Bursaries [I3009]             | Mrs. Norma L. Valeriote has made available a number of bursaries. Apply to the International Student Advisor. |
| Qualification(s):                                   | Students who are citizens of Third World countries, as defined by the   |
|                                                      | United Nations, who are registered in a degree or diploma program        |
|                                                      | and who demonstrate financial need.                                    |
| Amount:                                              | Several varies                                                        |

| Procor Ltd. Access Bursaries in Engineering [I3528] | Procor Ltd., with the aid of the Ontario government's OSOTF program, has provided funds for one $900 bursary. ACCESS AWARD |
| Qualification(s):                                   | Awarded to students with demonstrated financial need registered in any |
|                                                      | of the engineering programs at or beyond the third semester level.     |
|                                                      | Students must have a minimum 65% cumulative average. Apply to Student |
|                                                      | Financial Services with a completed Needs Assessment Form to             |
|                                                      | Student Financial Services by October 7.                                |
| Amount:                                              | 1 award of $900                                                        |

| Robert Auger Humanitarian Bursary [I3058]         | This award, of up to $500, has been established through the generosity of staff in the Office of Registrial Services, family and friends of Robert Auger, a former Associate Registrar at the University of Guelph. It is intended as an emergency fund to assist students who unexpectedly find themselves in difficult financial circumstances, to provide grocery, and textbook vouchers. |
| Qualification(s):                                 | Students who require assistance through this fund should apply in       |
|                                                      | accordance with the Assistant Registrar, Financial Aid, Student         |
|                                                      | Financial Services.                                                    |
| Amount:                                              | Several awards of $500                                                  |

| Scotiabank Bursaries [I3532]                      | Established by Scotiabank, with the assistance of the Ontario government's OSOTF program, to assist students with financial need to continue their studies as full-time students. Distributed in the Winter semester. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD |
| Qualification(s):                                | Full-time students with demonstrated financial need. Additionally,      |
|                                                      | students must meet the government-mandated terms for receipt of an OSOTF |
|                                                      | award (see General Statements on Awards).                              |
| Amount:                                              | 2 awards of $1,500                                                     |
University of Guelph Access Bursaries [I3522]
Provided by alumni and friends of the University, with the assistance of the Ontario government's OSOTF program, to support undergraduate, graduate or OAC (Guelph) diploma students who wish to study full-time but who need financial support to do so. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD. Variable amounts from $500 to $2,000.

**Donor(s):** Alumni and Friend of the University of Guelph

**Qualification(s):** Full-time students with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** Several awards of $500, Several awards of $2,000

University of Guelph Alumni Association Access Bursaries [I3523]
Established by the University of Guelph Alumni Association, with the assistance of the Ontario government's OSOTF program, to support students who wish to study full-time but who need financial support to do so. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD.

**Donor(s):** University of Guelph Alumni Association

**Qualification(s):** Full-time in-course students with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 2 awards of $1,000

University of Guelph Child Care Bursaries [I3053]
In order to provide accessible child care to students with (a) child(ren), the University of Guelph offers bursaries to students who have demonstrated financial need. Apply to Student Financial Services, with a completed Need Assessment Form by October 7. Awarded in the Winter semester. A number of awards of between $500 and $2,000.

**Donor(s):** University of Guelph

**Qualification(s):** Students, supporting (a) child(ren) who demonstrate greatest financial need, to offset the costs of child care. To be eligible, undergraduate students must be full-time (as defined by OSAP regulations) and Canadian citizens or permanent residents with demonstrated financial need.

**Amount:** Several awards of $500, Several awards of $2,000

University of Guelph International Bursary [I3048]
The University of Guelph provides support to International undergraduate students that are faced with unexpected, or unforeseen financial shortfalls while registered on campus. Students should apply to Benny Quay, in the Centre of International Programs office by completing an International Student Financial Need Assessment Form. These bursaries are awarded on an on-going basis.

**Donor(s):** University of Guelph

**Qualification(s):** Any International student registered in a degree program at the University of Guelph with a minimum registration of 1.50 course credits.

**Amount:** Several varies

University of Guelph Undergraduate In-Course Bursaries (MET-TR-UG) [I3037]
The University of Guelph offers in-course bursaries to students who have demonstrated financial need. Apply to Student Financial Services, with a completed Need Assessment Form by October 7. Awarded in the Winter semester.

**Donor(s):** University of Guelph

**Qualification(s):** Ontario students registered for full-time studies (as defined by OSAP) in a degree program with demonstrated financial need and a minimum of 2.0 course credits completed.

**Amount:** Several awards ranging in value from $100 to $3,000

University of Guelph Undergraduate In-Course Bursaries (NON OSAP TR) [I3047]
The University of Guelph offers in-course bursaries to students who have demonstrated financial need. Apply to Student Financial Services, with a completed Need Assessment Form by October 7. Awarded in the Winter semester.

**Donor(s):** University of Guelph

**Qualification(s):** Undergraduate students registered for full-time studies (as defined by OSAP) in a degree program with demonstrated financial need and a minimum of 2.0 course credits completed.

**Amount:** Several awards to a maximum of $800

University of Guelph Access Bursary [I3048]
The University of Guelph have made available a number of bursaries. Apply to Student Financial Services with a completed Need Assessment Form by October 7.

**Donor(s):** The University of Guelph

**Qualification(s):** Full-time undergraduate and graduate students who have financial need.

**Amount:** Several varies

University Student Assistance Program [I3057]
These bursaries have been established and approved by the University of Guelph to assist undergraduate and University of Guelph campus diploma students in financial need. Apply to Student Financial Services with a completed Need Assessment Form by October 7. Typically, awarded in the Winter semester.

**Donor(s):** University of Guelph

**Qualification(s):** Full-time undergraduate students registered in any degree program with demonstrated financial need. Preference will be given to students who are not eligible for provincial and/or federal assistance programs such as Ontario Student Assistance Program (OSAP) and/or Canada Student Loan Program (CSLP).

**Amount:** Several awards of varying amount to a maximum of $1,000

In-course Travel Grants

**Arthur D. Latornell Undergraduate Travel Grants [T0058]**
An endowment fund established in memory of Arthur D. Latornell, OAC ’50, who had a life-long professional career in resource management and conservation and a special interest in helping young people. The funds are given to provide twenty-five travel grants. These travel grants are offered to assist students in attending conferences, courses, co-op student exchanges or study abroad programs in these areas. Students may receive this grant only once. Apply to Student Financial Services. Deadline dates are June 1 for Fall travel, October 1 for Winter travel, and February 1 for Summer travel. Up to 80% of estimated travel costs to a maximum of $1,000.

**Donor(s):** The Estate of Arthur D. Latornell

**Qualification(s):** Students in semester 3 and above. Students must have at least a 70% average and a primary area of interest related to natural resources management, environmental science, conservation, soil science and/or rural development. Students will be asked to submit a one-page review of their travel experience, including the role the travel grant played, to the University after completion of the travel.

**Amount:** several up to a maximum of $1000

Canadian Friends of the Hebrew University in Jerusalem Travel Bursary [T4532]
The Canadian Friends of the Hebrew University of Jerusalem, with the assistance of the Ontario government's OSOTF program, have established these travel scholarships to assist students study at the Hebrew University of Jerusalem. Apply by letter with a completed Need Assessment Form to Student Financial Services by May 1. ACCESS AWARD. Up to three awards totalling $7500.

**Donor(s):** Canadian Friends of the Hebrew University in Jerusalem

**Qualification(s):** Undergraduate degree students in either the second or third year of study, Masters students in the first year of study, and Doctoral students in the first three years of study are eligible to be considered. Applicants must provide documentation that they have approval from the University of Jerusalem (i) to take courses and (ii) for the period of the visit. Students must also arrange appropriate University of Guelph approvals for a “Letter of Permission” prior to applying. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 3 Awards with varying amounts

Richard and Sophia Hungerford Undergraduate Travel Scholarships [T4508]
The estate of Richard and Sophia Hungerford, with the assistance of the Ontario government's OSOTF program, has established an endowment to provide travel scholarships to undergraduate students with demonstrated financial need who wish to study in developing countries, or attend conferences on development. Apply to Student Financial Services with a description of the intended travel, an estimate of travel costs and a completed Need Assessment Form at least one month prior to departure. Deadline dates are June 1 for Fall travel, October 1 for Winter travel, and February 1 for Summer travel. ACCESS AWARD.

**Donor(s):** The Estate of Richard Hungerford

**Qualification(s):** Registered undergraduate students with demonstrated financial need who have at least a 70% cumulative average in the last 2 semesters of full-time equivalent study are eligible. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** Several awards of varying amounts to a maximum of $1,000
## University of Guelph Travel Scholarships [T0421]

The University of Guelph, through the sale of Guelph London House, has established an endowment to provide travel scholarships to undergraduate and graduate students who wish to study outside of Canada but need financial support to do so. A total of $35,000 is available in the fund. Apply to Student Financial Services with a completed Travel Grant Application and Financial Need Assessment Form by October 1 for Winter travel, February 1 for Spring travel and June 1 for Fall travel.

**Donor(s):** University of Guelph  

**Qualification(s):** Registered undergraduate and graduate students that have completed 5.0 credits with demonstrated financial need who have a minimum 70% cumulative average in the last two semesters of full-time equivalent study are eligible to apply. The value of the award will depend on the assessed financial need. The scholarship can cover additional costs of travelling outside of Canada including: airfare, administrative costs, and differential costs of accommodation.

**Amount:** Several up to $1,000
Bachelor of Science in Environmental Sciences

Please refer to the General Statement on Awards for:

- Award Eligibility
- ACCESS Awards Eligibility
- Ontario Student Opportunity Trust Fund (OSOTF) Program
- How Awards are Paid

The University reserves the right to amend awards subject to the availability of funds.

Entrance Scholarships

Amos & William Lowe Memorial Scholarship [E0158]
Endowed by the late William B. Lowe of Fort Francis, Ontario. Preference will be given first to eligible students from the district of Rainy River, then from the district of Kenora or Thunder Bay, and finally from the remaining districts of Northern Ontario. Application not required. Two awards of $1,250 paid in two installments of $625.

Donor(s): William B. Lowe and Amos Edgar Lowe
Qualification(s): Student entering any of the undergraduate degree programs of the Ontario Agricultural College.
Amount: 2 awards of $1,250

Angelo and Frank Agro Undergraduate Scholarship [E0520]
Provided by the Agro Scholarship Fund. Apply by April 1 to Student Financial Services, including a covering letter describing your activities within 4H (details of 4H club membership, creativity in support of 4H activities, participation in activities and events, volunteer leadership roles, etc.) and a letter of reference from a 4H club official attesting to your involvement. $4,000 ($1,000 annually for four years).

Donor(s): The Frank Agro Estate
Qualification(s): Full-time students entering semester 1 who have attained a minimum 80% admission average in their graduating year from high school. The scholarship will be awarded to the eligible student demonstrating the greatest past or continuing involvement with 4H activities. Recipients must maintain full-time studies and at least a 70% program average each year for continuation of the award.
Amount: 1 award of $4,000

Board of Governors' Scholarships [E0317]
The scholarship will be paid in eight equal installments with the first and second payments payable shortly after registration in semesters 1 and 2. The 3rd to 8th payments are contingent upon obtaining a minimum average of 80% over the previous two semesters of full-time study. Students who fail to qualify for a payment may re-qualify by subsequently obtaining an 80% or better average over the previous two semesters of full-time study. Application not required. Twenty-five awards of $8,000 ($2,000 annually for 4 years).

Donor(s): Board of Governors
Qualification(s): Outstanding students entering semester 1
Amount: 25 awards of $8,000

December 6th Memorial Scholarship [E0005]
This scholarship, established by the Faculty Association, is awarded in memory of the fourteen women murdered in December 1989 at Ecole Polytechnique and is intended to attract women to a profession that is largely comprised of men. Application not required. $2,250 ($750 in each of semesters 1, 3, and 5).

Donor(s): University of Guelph Faculty Association
Qualification(s): Female student who is a Canadian Citizen or Permanent resident of Canada enrolled in the College of Physical and Engineering Science. The recipient will be selected on the basis of academic performance. For continued eligibility beyond semester 1, the student must maintain a minimum of 70% cumulative average. Demonstrated financial need may also be considered.
Amount: 1 award of $2,250

Earl B. MacNaughton Entrance Scholarships [E0172]
Established by friends, faculty, staff, alumni and students of the University to honour Earl B. MacNaughton, former head of the Department of Physics and founding Dean of the College of Physical Science. Application not required.

Donor(s): Earl B. MacNaughton
Qualification(s): Students with high academic standing, entering an honours program in the College of Physical and Engineering Science. Emphasis will be given to academic achievement in high school science and mathematics.
Amount: 4 awards of $1,000

Elite Swine Entrance Scholarship [E0532]
This award is provided by Elite Swine Inc. to assist students entering an OAC undergraduate Program. High schools will forward nominations to the OAC Awards Committee by September 15.

Donor(s): Elite Swine Inc.
Qualification(s): High school graduates who have applied to OAC undergraduate programs, based on admission average, contributions to their schools and communities and on their potential to become leaders in society. Preference will be given to students with a strong interest in animal science, particularly swine production.
Amount: 5 awards of $1,000

Gordon McNally Memorial Award [E0203]
In memory of Gordon McNally, Professor of Zoology in the Ontario Agricultural College (1934-1971) and College of Biological Science (1971-1979), who had a great interest in extracurricular activities. Applications by students or recommendations by high school teachers should be made by letter to the Associate Registrar, Student Financial Services by April 1.

Donor(s): Jean and Peter Gower
Qualification(s): Students entering any undergraduate program in the College of Biological Sciences. The recipient will be selected on the basis of academic performance and demonstration of outstanding contributions to extracurricular activities and/or community services.
Amount: 1 award of $500

International Student Entrance Scholarships [E0408]
In support of the University's strategic direction of internationalism, entrance scholarships are available each Fall semester to the top international students entering their first semester of an undergraduate degree program at the University of Guelph. Applicants must submit all relevant documentation for admission consideration by March 1 to be considered for a scholarship. These scholarships are awarded on a competitive basis. Application not required.

Donor(s): University of Guelph
Qualification(s): Students on a “student visa” entering an undergraduate degree program at the University of Guelph with a record of high academic achievement and extracurricular involvement, and studying full-time. This award is offered for the first year of study.
Amount: Several awards ranging in value from $500 - $6,000

J.D. MacLachlan Scholarship [E0170]
Provided by the family of J.D. MacLachlan. Application not required.

Donor(s): The J.D. MacLachlan Trust
Qualification(s): Student entering the University with the highest admission average.
Amount: 1 award of $1,500

Lincoln Alexander Chancellor's Scholarship [E0493]
These scholarships, named to honour Lincoln Alexander, Chancellor of the University of Guelph and former Lieutenant Governor of Ontario, on his 80th birthday, are awarded to academically distinguished entering students who are Aboriginal, persons with a disability or members of a racial minority, and who have made significant contributions to their schools and communities and demonstrated the potential to become leaders in society. These scholarships are intended to enhance student diversity and are amongst the most prestigious entrance awards at the University of Guelph. Nominations are made by high school principals and are to be sent to the Associate Registrar, Student Financial Services, by March 1. Two awards of $20,000 ($5,000 annually for 4 years).

Donor(s): Many Donors
Qualification(s): Entering students of academic distinction who are Aboriginal, persons with a disability or members of a racial minority, and who have made significant contributions to their schools and communities and demonstrated the potential to become leaders in society. Financial need may be taken into consideration.
Amount: 2 awards of $20,000
### McArthur-Humphries Scholarship [E0183]

Provided by the Wilhelmina McArthur Humphries Trust Fund. This scholarship is awarded to students entering any undergraduate degree program and are based on the highest admission average. Application not required.

**Donor(s):** Wilhelmina McArthur-Humphries Trust Fund  
**Qualification(s):** Students entering any undergraduate degree program. Applicants should have demonstrated excellence in any of the following fields: agriculture, applied science, arts, computer science, engineering, environmental science, food science, human nutrition, life science, mathematics, natural resources, physical science, veterinary science, or veterinary technology.

**Amount:** 1 award of $1,200

### P.A.J. Clarke Family Scholarship [E0381]

Paul and Aileen Clarke and their family established the endowment for this entrance scholarship in honour of Paul's father, the late Jack Clarke, a Blenheim area farmer. Apply by letter outlining extracurricular and/or community activities, ensuring that you have completed a Need Assessment Form for Entrance Awards, and submit to Student Financial Services by April 1. Students who have applied to the University for admission will receive information on completing a Need Assessment Form for Entrance Awards from the University early in the calendar year. This award is not tenable with the President's or Lincoln Alexander Chancellor's Scholarship. Annual payments are contingent upon full-time enrolment and maintaining a minimum 70% average on the previous Fall and Winter semesters. One award of $12,000 ($3,000 annually for 4 years).

**Donor(s):** Paul and Aileen Clarke  
**Qualification(s):** Students with a minimum 80% average with a record of leadership and community participation are eligible. Preference will be given to candidates from Blenheim district or Kent County and who were raised, or have worked, on a farm. Students may be contacted to provide special need circumstances if there is a short list of equal candidates.

**Amount:** 1 award of $12,000

### President’s Scholarship [E0238]

The most prestigious entrance awards at the University of Guelph. Twelve scholarships of $20,000 ($5,000 annually), named to honour their donors or distinguished members of the University, are awarded to entering students of academic distinction who have made significant contributions to their schools and communities and demonstrated the potential to become leaders in society. Nomination packages are sent to Canadian high schools each fall. This award is tenable with the University of Guelph Entrance Scholarship, the University of Guelph Accessibility Scholarship or the Registrar's Entrance Scholarship, but no other Entrance Scholarships. High school principals must submit their nominations using the application material sent to the school's Guidance Office in the fall, to the Associate Registrar, Student Financial Services, by March 1.

**Donor(s):**  
- A number of President's Scholarships have been named in honour of the following people and/or donors:  
  - Dick Brown  
  - Cecil H. Franklin and Ingrid Franklin  
  - Charles S. Humphrey  
  - Jack R. Longstaffe  
  - Burton C. Matthews

**Qualification(s):** Entering students of academic distinction who have made significant contributions to their schools and communities and demonstrated the potential to become leaders in society.

**Amount:** 12 awards of $20,000

### The Jack and Lillian MacDonald Scholarship [E0379]

Established in memory of Jack and Lillian MacDonald, to recognize their commitment to increasing the accessibility of post-secondary education to aboriginal persons. Apply by letter to Student Financial Services by April 1.

**Donor(s):** Jack and Lillian MacDonald  
**Qualification(s):** In the first instance, the award will be given to an entering student coming from the Grand River Polytechnical Institute (GRPI) who has the highest cumulative average at the University.

**Amount:** 1 award of $900
University of Guelph Entrance Scholarships [E0291]

This scholarship is based on the final admission average and program of study that is calculated by Admission Services, based on 12U, 12M, or OAC courses. These will be awarded based on the final high school grades that are submitted to the University in July. A minimum 85% final admission average guarantees an award. The scholarship will be applied directly to the student’s financial account in two equal payments in the Fall and Winter Semesters. You can view the scholarship amounts at: http://www.uoguelph.ca/studfin/fall_current_merit.shtml. Application not required.

Donor(s): University of Guelph

Qualification(s): Students entering their first year of post-secondary studies for the first time and have a minimum 85% final admission average.

Amount: Several awards ranging in value from $1,500 to $3,000

University of Guelph Faculty Association Scholarship [E0292]

W. Penri Morris Memorial Scholarship [E0430]

Award is payable at $750 per annum in the student’s 1st, 3rd, and 5th semester levels, provided a cumulative average of at least 70% is maintained. To receive the final payment, the recipient would normally be entering the 5th semester level within a period of 3 calendar years from the date of admission. Application not required.

Donor(s): University of Guelph Faculty Association

Qualification(s): Student entering an undergraduate degree program at the University of Guelph with the highest admission average who has been a resident in the County of Wellington during the previous twelve months.

Amount: 1 award of $2,250

Entrance Scholarships with Financial Need

Bill Klopp Memorial Award [E0150]

Priority will be given to a student from Kitchener-Waterloo Collegiate and Vocational Institute. Apply by letter, to Student Financial Services, outlining extracurricular activities and by completing the online Entrance Financial Need Assessment Application (N.A.F) by May 1. Students should complete the Entrance Financial Need Assessment application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admission has been submitted by the student).

Donor(s): Ross and Mary Lou Klopp

Qualification(s): Presented to a student entering semester 1 from the cities of Kitchener or Waterloo who has demonstrated involvement in extracurricular activities who has shown satisfactory academic performance and who has financial need.

Amount: 1 award of $500

Kenneth O. Hammill-Blount Canada Scholarship [E4356]

Established in honour of Kenneth Osborne Hammill, a long time friend of the University and retired plant manager of Blount Canada, with the assistance of the Ontario government’s OSOTF program. The winner is chosen from the list of alternates for the President’s Scholarships. President’s Scholarship nominees should complete the online Entrance Financial Need Assessment application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student). Deadline to submit the application is May 1. ACCESS AWARD.

Donor(s): The Blount Foundation, Inc.

Qualification(s): Students from the Province of Ontario, with demonstrated financial need, entering one of the following programs on an annual rotation: B.A. in 98/99, then B.A.Sc., B.Comm., B.S.C., B.Sc.(Agr.), B.S.C.(Eng.), B.S.C.(Env.). Recipients must maintain a 8+ average or higher, continue to demonstrate financial need and be full-time students in order to qualify for subsequent installments. During the summer after the 3rd year, the scholars will propose, to Student Financial Services, an enrichment experiential undertaking related to the student’s field of study; the grant application should include a detailed budget. A grant of up to $1,200 is available to support the undertaking, subject to continuing financial need and approval of the proposal by Student Financial Services. Upon completion, the student will write a report of the experience to Student Financial Services. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

Amount: 1 award of $9,600, payable in 8 payments of $1,200

Registrar’s Entrance Scholarships [E0384]

Established by the University of Guelph to support entering undergraduate students with identified financial need. Students should complete the online Entrance Financial Need Assessment application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student). Deadline to submit the application is May 1. Scholarship offers will be made in May. This award is not tenable with the University of Guelph Accessibility Scholarship, but can be held with all other Entrance Awards. Application not required.

Donor(s): University of Guelph

Qualification(s): Students entering a full-time undergraduate program on the basis of financial need and academic merit.

Amount: 500 awards of $2,000

Rol-Land Farms Scholarship [E4519]

Established by Rol-Land Farms, with the assistance of the Ontario government’s OSOTF program, to attract entering students who might otherwise not be able to attend university for financial reasons. Students should complete the online Entrance Financial Need Assessment application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student). Deadline to submit the application is May 1. ACCESS AWARD

Donor(s): Rol-Land Farms

Qualification(s): Outstanding entering undergraduate degree students with demonstrated financial need and a minimum 80% cumulative average. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

Amount: 13 awards of $2,000

University of Guelph Accessibility Scholarship [E3038]

Established by the University of Guelph to support entering undergraduate students with identified financial need. Students should complete the online Entrance Financial Need Assessment application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student). Deadline to submit the application is May 1. Scholarship offers will be made in May. This award is not tenable with the Registrar’s Entrance Scholarship, but can be held with all other Entrance Awards. Approximately 150 awards of $9,000 ($3,000 in year one and $2,000 in years 2, 3 and 4).

Donor(s): University of Guelph

Qualification(s): Students entering a full-time undergraduate program on the basis of financial need and academic excellence.

Amount: 150 awards of $9,000
Entrance Awards with Financial Need

Fred Hindle Bursary [E3500]
Awarded in memory of Fred Hindle, O.A.C.'38, a long-time generous supporter of his alma mater, who at the time of his death, wanted future students to have the same opportunity for an education as he had received. This bursary is awarded with the assistance of the Ontario government's OSOTF program. This bursary is dependent on continued demonstration of financial need and successful completion of study to advance into the next year. Students should complete the online Entrance Financial Need Assessment application as soon as they receive their Acknowledgement Package from Admissions Services (this will come automatically after an application for admissions has been submitted by the student). Deadline to submit the application is May 1. ACCESS AWARD. One award of $6,000 ($1,500 annually for 4 years).

Donor(s): W. Roy Hindle and family
Qualification(s): An entering O.A.C. degree student who has demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statement on Awards).
Amount: 1 award of $6,000

Harvey Graham Bursary [E3030]
Provided by Harvey Graham (OAC '39), Students should complete the online Entrance Financial Need Assessment application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student). Deadline to submit the application is May 1.

Donor(s): Harvey Graham, OAC '39
Qualification(s): Student who has demonstrated financial need with preference given to a student who comes from a working farm. Students graduating from Lindsay C. Y. I., Fenelon Falls Secondary School, or L. E. Weldon Secondary School will be considered. Each application must be accompanied by a reference letter from the Reeve of the student’s home township.
Amount: 1 award of $1,700

International Student Entrance Bursaries [E3043]
In support of the University's strategic direction of internationalism, entrance bursaries are available each fall to assist some of our international students entering an undergraduate degree program at the University of Guelph. Students who have applied to the University of Guelph will receive an application form.

Donor(s): University of Guelph
Qualification(s): Students on a student visa entering an undergraduate degree program at the University of Guelph with demonstrated financial need.
Amount: Several awards of $1,000, Several awards of $3,000

Justine Eves Learning Disability Accessibility Bursaries [E3057]
In memory of Justine Eves who was dyslexic and died tragically in an automobile accident in 1995, the Justine Eves Foundation together with the University of Guelph provides these awards to entering Undergraduate students who have a learning disability and who has demonstrated financial need. Students should complete the online Entrance Financial Need Assessment application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student). Deadline to submit the application is May 1.

Donor(s): Justine Eves Foundation
Qualification(s): Any entering undergraduate student that has financial need and a documented learning disability as defined by the Ontario Psychological Association.
Amount: 4 awards of $3,000

Robert Arthur Stewart Bursaries [E3272]
Established in memory of Mrs. Elsa H. Stewart of Pakenham, Ontario. Mr. Stewart graduated from the Ontario Agricultural College in 1933 and Mrs. Stewart from Macdonald Institute in 1932. Applicants for these bursaries should have a good academic record and an active interest in community affairs. A recommendation from the County agricultural representative or the secondary school principal is required and should be sent to Student Financial Services by April 1. Students should complete the online Entrance Financial Need Assessment application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student).

Donor(s): The Estate of Mrs. H. Stewart
Qualification(s): Students from the Ontario Counties of Lanark and Renfrew, and the Regional Municipality of Ottawa-Carleton, entering the 1st semester of a degree program at the University of Guelph.
Amount: 12 awards of $500

In-course Scholarships

Bill Taylor Memorial Scholarship [10280]
Applications to include a supporting letter from a coach or intramural supervisor. Apply to Student Financial Services by April 1.

Donor(s): AMF Canada Ltd.
Qualification(s): Full-time student that has completed a minimum of 7.5 credits, but no more than 17.5 credits in the Winter term who has a cumulative average of 70% after four semesters. Students should have demonstrated responsibility and leadership qualities through participation in intramural or intercollegiate athletics.
Amount: 1 award of $900

Blackburn Scholarship [10404]
In commemoration of the 125th Anniversary of the Ontario Agricultural College. Dr. D. J. Blackburn, a retired faculty member in Rural Extension Studies and former Director of the Associate Diploma Program has established this scholarship. Apply by letter, citing athletic contributions, to the OAC Awards Committee by April 1.

Donor(s): D. J. Blackburn
Qualification(s): OAC degree or diploma student who has participated in intercollegiate athletics and maintained a minimum cumulative average of 70% while registered at Guelph. Athletic excellence and leadership will be used to determine the recipient.
Amount: 1 award of $1,000

Bruce W. Minshall Memorial Scholarship [10450]
Provided by Dr. W. H. Minshall (O.A.C. '33) in memory of his son Bruce, a graduate of O.A.C. in 1970. Apply to Student Financial Services by April 1.

Donor(s): OAC Alumni Foundation on behalf of Dr. W. H. Minshall
Qualification(s): O.A.C. students in the B.SC.(Agri.), B.SC.(Env.) or B.SC. degree programs who have completed semester level 6 are eligible. Interest in crop protection and achievement in courses such as CROP*4240, ENVB*3210, ENVB*4100, and ENVB*4240 will be considered. Awarded to the student with an interest in crop protection and showing the greatest improvement in academic standing since entering the program.
Amount: 1 award of $1,000

C.G.A. Ontario Award for Excellence [C0025]
Apply by April 1 to Student Financial Services indicating intent to pursue the CGA program of professional studies. One award of $150 plus a credit equaling one year's tuition and course fees towards the CGA program (approximate value: $2,000)

Donor(s): Certified General Accountants Association of Ontario
Qualification(s): Graduating student who has a minimum cumulative average of 77% in Financial Accounting AGEC*2220; Management Accounting AGEC*2230; and Intermediate Accounting AGEC*3330.
Amount: 1 award of $150, plus 1 year tuition and course fee towards the CGA program. (approximate value of $2,000)

C.M. and D.J. Switzer Scholarships [10276]
Apply by April 1 to Student Financial Services.

Donor(s): C.M. and D.J. Switzer
Qualification(s): One to a student who has completed semester 2 of the Diploma in Agriculture program and one to a student who has completed semester 4 of a degree program in OAC Recipients will have a minimum of 70% standing and have demonstrated outstanding leadership ability in OAC student organizations, class executives and College Royal.
Amount: 2 awards of $2,000

Canadian Agri-Marketing Association (Ontario) Scholarship [10541]
Provided by the Canadian Association of Agri-Marketing Association (Ontario). Apply to the OAC awards Committee by April 1 with a summary of participation in the Ag Ec & Biz Society and in agri-marketing initiatives as well as a letter of recommendation from a faculty member.

Donor(s): Canadian Agri-Marketing Association (Ontario)
Qualification(s): Student who has competed a minimum of 10.0 credits with a minimum cumulative average of 70% who are members of OAC and the Ag Ec & Biz Society. Selection will be based on a combination of academic achievement and a demonstrated interest in agri-marketing.
Amount: 1 award of $1,500
CFRU Volunteer Award [I0215]

Apply to the CFRU Board of Governors by April 30.

Donor(s): Station Manager, CFRU

Qualification(s): Applicants must be registered or graduating from the University of Guelph and have volunteered at CFRU for at least one year. The recipients will be selected on the basis of academic performance and volunteer work at CFRU.

Amount: 2 awards of $250

Charles McGowan Memorial Prize [C0187]

Fund established in memory of the late Lieutenant Charles McGowan. Application not required.

Donor(s): Charles McGowan Memorial Fund

Qualification(s): Outstanding graduating student in an OAC degree program.

Amount: 1 award of $300

City of Guelph 175th Anniversary Awards [I0515]

Provided by the Guelph Community Foundation, in celebration of the 175th anniversary of the City of Guelph in 2002, as an investment for future generations. Apply to Student Financial Services.

Donor(s): Graduating Class of 1905

Qualification(s): Student who has completed 15.0 course credits, is registered in a major in an Ontario Agricultural College, is considered to be the most outstanding student in the class and who, through activity in all branches of college life as well as scholastic achievement has made an outstanding contribution to the University.

Amount: 1 award of $1,000

Class of '51 OAC Leadership Awards [C0063]

Established by Year '51 OAC, on the occasion of its 45th anniversary. At the discretion of the OAC Awards Committee students may be selected before graduation. Application not required.

Donor(s): Year '51 OAC

Qualification(s): Students graduating from the degree program in a major in an OAC department who have a 70% standing in the final year of study and who have demonstrated leadership in the College or University extracurricular activities.

Amount: 4 awards of $1,000

Class of '67 OAC Centennial Scholarship [I0067]

Apply to Student Financial Services by April 1.

Donor(s): Class of OAC '67

Qualification(s): Student majoring in an OAC department who through activity in all branches of college life as well as scholastic achievement has made an outstanding contribution to the University.

Amount: 1 award of $1,000

Class of 1905 Scholarship [I0060]

Established by the graduating class of 1905. Apply to Student Financial Services, by April 1.

Donor(s): Graduating Class of 1905

Qualification(s): Student who has completed 15.0 course credits, is registered in a major in an Ontario Agricultural College, is considered to be the most outstanding student in the class and who, through activity in all branches of college life, as well as proficiency in scholarship during the program, has done most for the college, for fellow students and for personal development.

Amount: 1 award of $300

Class of 1970 Scholarship [I0424]

Established by the Silver Anniversary celebrants to commemorate the 25th anniversary of the University Class of 1970. This award rotates among all six colleges on the main campus. The appropriate College Award Committee selects the candidate each Fall semester and the candidate is announced each October. Application not required.

Donor(s): Class 1970: 25th Reunion Gift

Qualification(s): Outstanding student in any degree program who has attained at least an 80% average in two consecutive semesters resulting in placement on the Deans' Honours List.

Amount: 1 award of $1,400

College of Physical Engineering Science Academic Scholarship [I0073]

Application not required.

Donor(s): College of Physical and Engineering Science

Qualification(s): Offered in the Winter semester to students who have completed at least 15.0 course credits in a College of Physical and Engineering Science program and have excellent grades but have not received awards recently.

Amount: 2 awards of $250

College of Physical Engineering Science Graduation Prize [C0075]

The winner will be selected in May from all students who have completed the program in the previous twelve months. Application not required. One award of $250 and a commemorative plaque.

Donor(s): College of Physical and Engineering Science

Qualification(s): Student graduating with the highest cumulative average from an honours B.Sc. program in a Physical and Engineering Science area.

Amount: 1 award of $250, 1 Commemorative plaque

College of Physical Engineering Science Scholarship [I0076]

Awarded in the Fall semester to a student who has completed semester 6 in the previous Fall, Winter or Spring semesters and who is enrolled in Year 4 of a College of Physical and Engineering Science program. Application not required.

Donor(s): College of Physical and Engineering Science

Qualification(s): Recipients will be selected on the basis of a high average (minimum 80% average required) in courses normally taken in Year 3.

Amount: 1 award of $250

College of Social Science Alumni Heritage In-Course Scholarships [I0492]

Established in recognition of the valuable contributions made over many years by College of Social Science alumni and the Alumni Association to the life and vitality of the University. Awarded in the Fall semester. Application not required.

Donor(s): College of Social Science Alumni

Qualification(s): Students registered in the C.S.A.H.S. with the highest cumulative program average of at least 80.0% who have completed between 10.00 and 12.50 course credits and who registered in C.S.A.H.S. in the subsequent Fall Semester. One scholarship will be awarded to a full or part-time student registered in a program offered by each of the following six C.S.A.H.S. administrative and academic units: Economics, Geography, International Development Studies, Political Science, Psychology and Sociology and Anthropology. This scholarship may be held once only.

Amount: 6 awards of $1,000

Collins Barrow Award [I0040]

Offered by Collins Barrow, a national firm of Chartered Accountants. Awarded in the Winter semester. Application not required.

Donor(s): Collins Barrow Chartered Accountants

Qualification(s): Student with the highest grade in course AGEC*3330, Intermediate Accounting, in the Fall semester. In the event of a tie, the scholarship will be given to the student with the highest cumulative average in their program.

Amount: 1 award of $500

CSAHS Student Volunteer Scholarship [I0482]

Offered in the Winter semester to students who have completed at least 15.0 course credits with a minimum cumulative 70% average.

Donor(s): CSAHS Student Volunteer Scholarship Committee

Qualification(s): Full-time undergraduate students in any degree program offered by the College of Social and Applied Human Sciences and have completed at least 15 course credits in a College of Physical and Engineering Science program.

Amount: 1 award of $350
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<tr>
<th>Scholarship Name</th>
<th>Details</th>
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| **David F. Boyes Apiculture Scholarship [I0031]** | Established in memory of David Boyes a technician in the Apiculture Field Laboratory. Application not required.  
*Donor(s):* The Apiculture Club  
*Qualification(s):* Student registered in the Fall semester who achieves high academic standing in Introductory Apiculture (ENVB*2210) in the previous year, demonstrates an interest in apiculture and who has participated in extracurricular activities.  
*Amount:* 1 award of $150 |
| **E.B. MacNaughton Convocation Prize [C0171]** | Established by the College of Physical and Engineering Science to honour Earl B. MacNaughton, former head of the Department of Physics and founding Dean of the College of Physical Science. Application not required. One award of a plaque-mounted medal and $250.  
*Donor(s):* The College of Physical and Engineering Science  
*Qualification(s):* The College of Physical and Engineering Science nominee for the Winegard Medal.  
*Amount:* 1 award of $250, 1 Plaque-mounted medal |
| **Ellen Nilsen Memorial Award [I0047]** | Offered by the friends of Ellen Nilsen. Apply to the Director of the Collaborative International Development Studies Programme, Room 702 MacKinnon Building, by October 7.  
*Donor(s):* The Friends of Ellen Nilsen  
*Qualification(s):* Academically outstanding woman from a developing country who is registered at the University of Guelph in an undergraduate or a graduate program and who has demonstrated a commitment to social change.  
*Amount:* 1 award of $1,500 |
| **Evelyn Matheson Pepper Memorial Scholarship [I0538]** | The daughters and grandchildren of Evelyn Matheson Pepper, a Mac '33 graduate, provide this scholarship. Application not required  
*Donor(s):* Ms. Barbara Stuart and Ms. Susan Pepper  
*Qualification(s):* Student who achieves the highest grade in the course FRHD*3200, Practicum in Child, Youth and Family I, offered by the department of FRAN.  
*Amount:* 1 award of $1,000 |
| **Floyd Roadhouse Prize in Analytical Chemistry [I0247]** | Presented in the Winter semester. Application not required.  
*Donor(s):* Colleagues, students and friends of Professor F.E.B. Roadhouse  
*Qualification(s):* Student with the highest grade in CHEM*2400 Analytical Chemistry 1 in the previous calendar year, who is continuing in an honours major program administered by the Department of Chemistry. In the event of a tie, laboratory performance will be considered.  
*Amount:* 1 award of $200 |
| **George A. Gray OAC ’51 Varsity Scholarships [I0487]** | Established in memory of George Gray, OAC ’51, a Guelph football lineman and a great player of the game. Apply to Student Financial Services by October 7 providing a covering letter describing on- and off-campus academic and extra-curricular activities and a completed Need Assessment Form. Awarded at the annual Athletics Banquet.  
*Donor(s):* Mrs. George A. Gray  
*Qualification(s):* Undergraduate degree or diploma students who are members of varsity teams and in the second, third, fourth or fifth year of full-time study with a minimum 70% average in all courses completed in the previous year of study and have demonstrated leadership. Selection will include equally weighted consideration of academic performance, leadership and financial need. Preference will be given to members of the varsity football team. Examples of leadership may include academic tutoring, mentoring team mates, assisting in the organization and promotion of varsity and/or intramural athletics, participation on university committees, such as in residences, on Senate or in Colleges, and similar off-campus activities. Students may receive the award up to four times.  
*Amount:* 2 awards of $1,250 |
| **Gonder Family Centre for Students with Disabilities Volunteer Award [I0563]** | In recognition of the many students who volunteer their time and talents to assist their colleagues registered with the Centre for Students with Disabilities (CSD) and to encourage others to do so, Dr. John and Mrs. Katherine Gonder provide this award to a student who has volunteered in the CSD. The award will be made on the basis of the volunteer activities undertaken by the student at the CSD, one letter of reference, and a personal statement that outlines the time commitment and types of volunteer activities undertaken as well as an indication of how this was a valuable and rewarding volunteer experience. Apply by January 15th to the CSD (c/o Advisor to Students with Disabilities) by submitting above documentation.  
*Donor(s):* Dr. John and Mrs. Katherine Gonder  
*Qualification(s):* All students registered in the College of Social and Applied Human Science (CSAHS) that have completed between 10.0 and 15.0 course credits with a minimum 70% cumulative average, and have been involved as volunteers with the CSD.  
*Amount:* 1 award of $900 |
| **Governor General's Medal [C0044]** | Established by the Office of the Governor General of Canada. Application not required.  
*Donor(s):* The Chancellery  
*Qualification(s):* Restricted to those undergraduate students in any degree program who are graduating in June, or who have graduated in the previous two convocations, with the highest cumulative average.  
*Amount:* 1 Silver medal |
| **Guelph Soap Company Scholarship [I0288]** | The Guelph Soap Company donates this scholarship towards tuition fees, which is awarded in the Winter semester. Application not required.  
*Donor(s):* Tricorp Chemical Specialities  
*Qualification(s):* Student enrolled in the organic chemistry courses CHEM*3750 and CHEM*3760 during the previous calendar year who has obtained the highest average in one Biochemistry course and two Organic Chemistry courses, and who is continuing in an honours major program administered by the Department of Chemistry.  
*Amount:* 1 award of $1,200 |
| **Guelph Varsity Athletic Accessibility Scholarship [I0518]** | Established by alumni and friends of the University of Guelph. Apply to Student Financial Services by October 7 providing a covering letter describing on- and off-campus academic and extra-curricular activities and a completed Need Assessment Form. Awarded at the annual Athletics Banquet.  
*Donor(s):* Alumni and friends of the University of Guelph  
*Qualification(s):* Undergraduate degree or diploma students, with at least 5.0 credits and less than 20.5 credits, who are members of a varsity athletic team and who have demonstrated financial need, are eligible to apply. Students must have maintained at least a 70% cumulative average in all courses completed in the previous year of study (minimum 3.0 credits). Selection will be based upon equally weighted consideration of academic performance and evidence of leadership qualities. Students may receive the award up to four times.  
*Amount:* 2 awards of $1,250 |
H. Paul Jolly Award [I0193]
Application not required.

Donor(s): Richard Sulin
Qualification(s): Student with the highest cumulative average entering semester 3 of the B.Sc.(Env.) program.
Amount: 1 award of $450

Highdale Farms Scholarship [I0348]
Apply to Student Financial Services, by April 1.

Donor(s): Arthur Spoerri
Qualification(s): Two awards are available for students in semesters 3 through 6 with at least a 75% cumulative average and whose primary area of study is related to the natural sciences. The first award is based on academic proficiency. The second award is based on academic proficiency and demonstrated leadership with preference given to students from Ottawa-Carleton, Dundas-Glengarry-Stormont, Greenville, Lanark, Prescott-Russell and Renfrew counties.
Amount: 2 awards of $2,000

Jean Carter Memorial Gerontology Scholarship [I0488]
Established by the family and friends of Jean Carter, a Mac’38 graduate who was actively involved in the life of the College and the University. Apply by letter to the CSAHS Undergraduate Awards Committee, Dean’s Office by April 1st, including a statement that outlines the student’s experience working with the elderly in a volunteer capacity as well as extracurricular involvement the student may have and two letters of reference, one of which should be from someone who can speak to the student’s volunteer experiences with the elderly, while the other should comment on the extracurricular activities of the student.

Donor(s): Mr. Robert N. Carter and Family
Qualification(s): Undergraduate student in the CSAHS who has completed at least 10 credits with a minimum 70% cumulative average and has made a significant contribution to the care of the elderly. Preference will be given to students in the B.A.SC. majoring in Gerontology.
Amount: 1 award of $1,000

Jim Stokman Memorial Scholarship [I0386]
Mrs. Stokman and family, including her sons Nick (O.A.C.’77) and Andrew (O.A.C.’84) have established this award in memory of her husband and their father to recognize his lifetime contribution to the family farm. Apply to Student Financial Services by April 1.

Donor(s): Mrs. Jim Stokman
Qualification(s): Available to O.A.C. students who have completed 5.0 credits with at least ‘B’ average in one of the following programs: B.Sc.(Agr.), B.Comm., B.SC. or B.SC.(Env.). Students must have come from a rural background and have demonstrated community/student involvement both during high school and the first two semesters of University.
Amount: 1 award of $600

John A. Archibald Memorial Scholarship [I0014]
Awarded in Memory of John A. Archibald, former Director of the Horticultural Research Institute of Ontario. Apply to Student Financial Services by April 1.

Donor(s): The friends and associates of the late John A. Archibald
Qualification(s): Outstanding student with an interest in courses in the Department of Land Resource Science who has completed semester 6. The recipient will be chosen on the basis both of high academic standing and participation in extracurricular activities.
Amount: 1 award of $1,200

John Eccles Scholarship [I0093]
Nominations, accompanied by appropriate résumés, are to be submitted to Student Financial Services by April 1.

Donor(s): Student Housing Services
Qualification(s): Full-time student registered in semester 2, 3, 4, 5 or 6 and living in residence in the Winter semester who has a cumulative 80% average or who is in the top 10% of his/her program. The recipient must have demonstrated responsibility and leadership qualities through participation in residence related activities. Residence Life Staff and paid members of Interhall Council and Hall Councils are not eligible.
Amount: 1 award of $600

Kenneth W. Hammond Award [I0045]
The evaluation of the student will be based on the final essay in the "Environmental Perspectives and Human Choice: 5000 Days" course. The selection committee will be comprised of 4 persons: the donor, the Director of the Arboretum, the Dean of Physical and Engineering Science and the Dean of Biological Science. Application not required.

Donor(s): Kenneth W. Hammond
Qualification(s): Student who has best demonstrated an understanding of the world’s resource situation and its proper use by humankind.
Amount: 1 award of $1,000

Kip Hunter Prize [I0139]
For the best essay, written under a philosophy course. The essay may be either a required assignment for a course (in which case either the student or the instructor may submit it) or it may be specially prepared for the competition. Submission of essays is to the Chair, Department of Philosophy, by the end of the 12th week of the Winter semester.

Donor(s): Faculty, students and staff of the Philosophy Department
Qualification(s): Any undergraduate who has registered for a philosophy course during the academic year in which the prize is awarded.
Amount: 1 Book prize

Land Resource Science Academic Scholarship [C0425]
Provided by the Land Resource Science Endowment Fund. Application not required.

Donor(s): Provided by the Land Resource Science Endowment Fund
Qualification(s): Student graduating from any major in the department with the highest cumulative average.
Amount: 1 award of $1,000

Land Resource Science Achievement Scholarship [C0426]
Provided by the Land Resource Science Endowment Fund. Apply to Student Financial Services by April 1.

Donor(s): Provided by the Land Resource Science Endowment Fund
Qualification(s): Student graduating from any major in the department with a minimum cumulative average of 70%. Preference will be given to students contributing to student life on campus and/or community activities.
Amount: 1 award of $1,000

Lange and Prokipcak Chemistry Scholarship [I0528]
This scholarship was established by Professor Gordon L. Lange, Professor Joe M. Prokipcak, friends and colleagues. Professors Gordon L. Lange and Joe M. Prokipcak were valued members of the chemistry Faculty who retired in 2001. Their excellence in teaching was recognized within the university and nationwide, winning them a total of eleven teaching awards. Application not required.

Donor(s): Professor Gordon L. Lange, Professor Joe M. Prokipcak and friends and colleagues
Qualification(s): Student in CPES with the highest average grade in CHEM*1040,1050 and 2700 who has completed a minimum of 10.0 credits up to a maximum of 14.75 credits.
Amount: 1 award of $1,000

Leonard Conolly Exchange Student Scholarship [I0446]
Established by students, faculty, staff and friends to honour Prof. Leonard Conolly, professor of drama, Chair of the Department of Drama, 1981-88, and Associate Vice-President Academic, 1988-1992. Apply to the Centre for International Programs by April 5, for visiting during the subsequent Fall or Winter semesters.

Donor(s): Students, faculty, staff and friends of Dr. Leonard Connolly
Qualification(s): Full-time visiting exchange undergraduate or graduate student, registered at Guelph for at least one semester, from any country in the South (a list of eligible countries and exchange partner universities is available in the Centre for International Programs). Selection, by the Centre for International Programs, will be based on assessment of (a) a one-page submission describing the significance of the student visiting Guelph to the program of study at the partner exchange university (b) two faculty references of one-page each, and (c) consistent high performance in the course work completed, as documented by a transcript of program grades to date, submitted by the home university.
Amount: 1 award of $1,000

Mae McEwen Memorial Scholarship [I0185]
Apply to Student Financial Services, by April 1.

Donor(s): The estate of Mae McEwen
Qualification(s): Student who has completed semester 6 of the Environmental Biology major in the B.Sc. or B.Sc.(Env.) programs with a cumulative average of 80% or better. Participation in extra curricular activities related to environmental issues will be considered in determining the recipient.
Amount: 1 award of $1,200
IX. Scholarships and Other Awards, Bachelor of Science in Environmental Sciences

Pacific Regeneration Technologies (PRT) Scholarship [C0511]

- Amount: 2 awards of $1,250

OAC ‘55 Scholarships [I0064]

- Pacific Regeneration Technologies Inc. (PRT)
- Oxford County Pork Producers Scholarship (Degree) [I0531]
- United Steelworkers LU4120 Scholarship [I0293]
- Toronto District Beekeeper’s Association Scholarship [I0285]
- Thomas H. Peters Scholarship [I0233]
- United Steelworkers LU4120 Scholarship [I0293]
- Stephanie Wilken Volunteer Award [I0449]
- Pacific Regeneration Technologies (PRT) Scholarship [C0511]
- OAC Centennial Graduate Fellowships [C0209]
- The Jack and Lillian MacDonald Scholarship [E0379]
- O.A.C. Students’ Federation Medal [C0217]
- OAC Centennial Graduate Fellowships [C0209]
- T.K. Warley Agrifood Policy Prize [I0212]
- The Oxford County Pork Producers have made available this scholarship. Application not required.
- Oxford County Pork Producers Scholarship (Degree) [I0531]
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Van Stralen and Van Der Hoeven Memorial Scholarship [I0296]
Application will be made by nominations signed by 4 currently registered students forwarded to Student Financial Services by April 1. Presentations are made in the Fall semester.

Donor(s): Mr. & Mrs. J. Van Stralen & family and Mr. & Mrs. Hans Van Der Hoeven & family

Qualification(s): Students that have completed a minimum of 2.0 credits, but not more than 7.5 in the Winter term in any degree program who have obtained a minimum of 70% standing. Selection will be made on the basis of participation in university activities and in the student's home community as well as qualities of leadership, ambition and initiative.

Amount: 2 awards of $400

W. Harold Minshall Scholarship [I0451]
Provided by Dr. W.H. Minshall (O.A.C.’33). Apply to Student Financial Services by April 1.

Donor(s): OAC Alumni Foundation on behalf of Dr. W.H. Minshall

Qualification(s): O.A.C. students in the B.SC.(Agr.), B.SC.(Env.) or B.SC. degree programs who have completed semester level 6 are eligible. Interested in aptitude in crop protection, particularly in weed biology and management. Interest in crop protection and achievement in courses such as CROP*4240, ENVB*3030, ENVB*3210, ENVB*4100, and ENVB*4240 will be considered. Awarded on the basis of academic standing in the relevant courses and participation in extra curricular activities.

Amount: 1 award of $1,000

W.C. Winegard Medal [C0311]
The W.C. Winegard Medal is the most prestigious graduating award of the University of Guelph. One student will be nominated by each College Awards Committee. The Senate Awards Committee will make the final selection and the medal will be awarded at Convocation in June. Application not required.

Donor(s): The Board of Governors’ of the University

Qualification(s): Graduating student who excels both academically and in extracurricular activities.

Amount: 1 Gold medal

W.N. Vaughan Medal [C0299]
Prospective candidates will be nominated by Senators and the medal winner will be chosen by a committee selected by the Striking Committee. The medal will be awarded at Convocation in June. Application not required.

Donor(s): Friends of Walter N. Vaughan

Qualification(s): Student senator who has high academic standing and who has made a substantial contribution to student life and to the University, particularly through involvement in and commitment to Senate activities.

Amount: 1 Medal

Waterloo-Wellington CA Association Award [I0367]

Donor(s): Waterloo-Wellington Chartered Accountants Association

Qualification(s): Student who achieves the highest academic standing in the course AGEC*3330, Intermediate Accounting.

Amount: 1 award of $100

Wellington Laboratories Prize in Environmental Chemistry [I0308]
Provided by Wellington Laboratories. Application not required.

Donor(s): Wellington Laboratories

Qualification(s): Students registered at the time of presentation in the Winter semester in an honours major program offered by the Department of Chemistry with the highest grade in CHEM*3360 and TOX*3360 Environmental Chemistry and Toxicology in the previous calendar year.

Amount: 1 award of $500

In-course Scholarships with Financial Need

3M Canada Scholarships [I0564]
Provided by 3M Canada. Apply to Student Financial Services by October 7 with a completed Financial Need Assessment Application.

Donor(s): 3M Canada Company

Qualification(s): Students entering Year 4 (ie. having completed a minimum of 15.0 credits) with demonstrated financial need and high academic achievement.

Amount: 2 awards of $1,000

CPES Dean’s Scholarship - ACCESS [I4527]
Established by a number of industrial, commercial and public sector corporations, with the assistance of the Ontario government’s OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. This award may be held once only. ACCESS AWARD

Donor(s): Established by a number of industrial, commercial and public sector corporations

Qualification(s): Students with demonstrated financial need registered in any major program in C.P.E.S. in, or beyond, second year. A minimum 80% cumulative average is required. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

Amount: 1 award of $750

Earl B. MacNaughton Entrance Scholarships [I4172]
Established by friends, faculty, staff, alumni and students of the University to honour Earl B. MacNaughton, former head of the Department of Physics and founding Dean of the College of Physical and Engineering Science, with the assistance of the Ontario government’s OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Fall semester. ACCESS AWARD

Donor(s): Earl B. MacNaughton

Qualification(s): Students currently registered in the final year of an honours program in the College of Physical and Engineering Science with high academic standing, demonstrated financial need, and who have completed a minimum of 15.0 credits. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

Amount: 2 awards of $1,000

Eleanor Morgan & Bill Archibald Scholarships [I4540]
The family of Eleanor and Bill Archibald, with the assistance of the Ontario government’s OSOTF program, provide this scholarship in memory of their parents. Apply with a completed Need Assessment Form and a letter outlining community involvement to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

Donor(s): The Family of Eleanor & Bill Archibald

Qualification(s): Students registered in any program with a minimum of 5.0 credits who have cumulative 70% average, has demonstrated community involvement, and financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (See General Statements on Awards).

Amount: 1 award of $1,000

Erin Demers Memorial Scholarship [I0406]
The family and friends of Erin Demers, a first-year student at the University of Guelph who was tragically killed in a car accident in 1996, have established this scholarship in her memory. Apply to Student Financial Services by April 1 with a completed Need Assessment Form, along with one supporting reference letter from a Residence Assistant, Residence Manager, or Residence Officer.

Donor(s): Family and friends of Erin Katrina Demers

Qualification(s): A student who has resided in an on-campus residence during the first semester and who has a cumulative average of 70%. This award is payable in the second year (ie. completed 5.0 course credits) of study. Preference will be given to students with demonstrated financial need and who have participated significantly in extracurricular activities.

Amount: 1 award of $1,000

Euclid-Hitachi Scholarships [I4517]
Established by Euclid-Hitachi of Canada Ltd., with the assistance of the Ontario government's OSOTF program, to assist students with financial need to continue their studies as full-time students. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

Donor(s): Euclid-Hitachi of Canada Ltd.

Qualification(s): Students with a minimum cumulative average of 70% with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

Amount: 2 awards of $1,500
IX. Scholarships and Other Awards, Bachelor of Science in Environmental Sciences

Graham Family Incentive Scholarship [14506]
Provided by Harvey Graham (OAC ’39) with the assistance of the Ontario government’s OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

Donor(s): Harvey Graham OAC ’39

Qualification(s): Students entering the fourth year of a four year degree program, maintaining at least a 70% program average and demonstrating financial need, who have previously received the Harvey Graham Bursary.

Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

Amount:
1 award of $5,000

Kathleen and R. Douglas Kennedy Scholarship in CSAHS [I0546]
Kathleen (MAC ’39) and Douglas (OAC ’39) Kennedy met at a “hop” on campus in 1937 and later married. They established this scholarship to celebrate their time on campus and their 62 years of marriage. Apply to Student Financial Services by October 7 with a completed Need Assessment Form.

Donor(s): Mrs. Kathleen Kennedy and the late Mr. R. Douglas Kennedy

Qualification(s): This scholarship will be awarded to a student in CSAHS with high academic achievement. Preference will be given to students registered in the Department of Family Relations and Applied Nutrition, the School of Hospitality and Tourism Management, or the Department of Marketing and Consumer Studies and to students with demonstrated financial need.

Amount:
1 award of $1,000

R. Douglas and Kathleen Kennedy Scholarship in OAC [I0547]
Douglas (OAC ’39) and Kathleen (MAC ’39) Kennedy met at a “hop” on campus in 1937 and later married. They established this scholarship to celebrate their time on campus and their 62 years of marriage. Apply to Student Financial Services by October 7 with a completed Need Assessment Form.

Donor(s): Mrs. Kathleen Kennedy and the late Mr. R. Douglas Kennedy

Qualification(s): This scholarship will be awarded to a student in OAC with high academic achievement and demonstrated financial need.

Amount:
1 award of $1,000

Yeandle Family In-Course Scholarships [I3546]
Provided by the Estate of Audrey Yeandle, a Mac’25 graduate and life-long supporter of the University, with the assistance of the Ontario government’s OSOTF program. Apply to Student Financial Services by October 7 with a completed Need Assessment Form. ACCESS AWARD

Donor(s): The Estate of Audrey Yeandle

Qualification(s): Full-time undergraduate students registered in each of the eight academic units and CIDS within the College of Social and Applied Human Sciences. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards). Awards will be made on the basis of financial need and academic achievement.

Amount:
Several awards up to $2,000

In-course Awards with Financial Need

Class of OAC ’36 Bursaries [I3301]
Established by the Class of OAC ’36 with the assistance of the Ontario government’s OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

Donor(s): Class of 1936

Qualification(s): An OAC degree student enrolled in any degree program who has demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

Amount:
2 awards of $500

Archie and Isabelle (Cook) Rintoul OAC Bursary [I3060]
Offered by Archie and Isabelle (Cook) Rintoul of OAC ’26 and MAC ’27 respectively. Apply with a completed Need Assessment Form by October 7 to Student Financial Services. Two awards of $500 (one in each of the two colleges).

Donor(s): Archie and Isabelle (Cook) Rintoul

Qualification(s): Students enrolled in the B.A.SC. program or the Hotel and Food Administration, Housing and Real Estate Management or Marketing Management majors of the B.COM. program and the department of Environmental Biology in the B.SC., B.SC.(Agr.) or the B.Sc.(Env.) degree programs. Students who have completed semester 4 (10.00 credits) and who have demonstrated financial need are eligible.

Amount:
2 awards of $500

Bette Stephenson Accessibility Bursary [I3054]
In recognition of the work of Dr. Bette Stephenson in supporting students with learning disabilities, the University of Guelph offers bursaries to students who have demonstrated financial need and who have a learning disability. These bursaries will be used to offset the costs of a required assessment, or the purchase of a computer that is required to support their learning needs. Apply to Student Financial Services, with a completed Need Assessment Form by October 7. Awarded in the Winter semester.

Donor(s): University of Guelph

Qualification(s): Undergraduate students who have demonstrated financial need and who have a learning disability. Students must be full-time (as defined by OSAP regulations) and Canadian citizens or permanent residents.

Amount:
3 awards to a maximum of $1,500
**IX. Scholarships and Other Awards, Bachelor of Science in Environmental Sciences**

**Brinson Partners Inc. Bursaries [I3526]**

Brinson Partners Inc., with the assistance of the Ontario government’s OSOTF program, has established these bursaries. Apply with a completed need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

**Donor(s):** Brinson Partners Inc.

**Qualification(s):** Students with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 2 awards of $1,500

**Burnbrae Farms Bursaries [I3525]**

Established by Burnbrae Farms, with the assistance of the Ontario government’s OSOTF program to assist students with financial need to continue their studies as full-time students. Apply with a completed need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

**Donor(s):** Burnbrae Farms

**Qualification(s):** Full-time students with demonstrated financial need. Preference will be given to students with a demonstrated interest in poultry science. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 2 awards of $1,500

**Class of ’72: 25th Reunion Bursaries [I3512]**

Established by the Class of ’72: 25th Reunion Fund with the assistance of the Ontario government’s OSOTF program to support students who wish to study full-time. Apply to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

**Donor(s):** Class of ’72: 25th Reunion

**Qualification(s):** Full-time students with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 1 award of $500

**Class of OAC ’33 Bursaries [I3531]**

Established by the class of OAC ’33 on the occasion of their 65th Anniversary, with the assistance of the Ontario government’s OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

**Donor(s):** Class of 1933 (in honour of the late Prof. W.I. Squirrel)

**Qualification(s):** OAC undergraduate students with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 3 awards of $1,000

**Credit Valley Conservation Authority Foundation Bursary [I3007]**

Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester.

**Donor(s):** Credit Valley Conservation Authority Foundation

**Qualification(s):** Full-time student registered in B.A. Geography, B.SC. Geographic Information Systems and Environmental Analysis, B.SC. Engineering (Water Resource Engineering), B.SC.(Agr.) Agroecosystem Management or B.SC.(Env.) Geography majors with demonstrated financial need. Preference will be given to a student who resides in a member municipality of the Credit Valley Authority Foundation.

**Amount:** 1 award of $500

**David R. Leach Memorial Bursary [I3534]**

Provided in memory of David R. Leach by his family, with the assistance of the Ontario government’s OSOTF program. David entered OAC in 1969 as a member of OAC ’73 and graduated with a B.SC. in Agriculture in 1974. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

**Donor(s):** Mrs Deborah Leach-Sartor

**Qualification(s):** OAC undergraduate degree or diploma student who is physically disabled as determined by the Centre for students with Disabilities, has satisfactory academic standing and who has demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 1 award of $1,000

**Donald P. Watson Bursaries in Horticultural Science [I4501]**

Established by the estate of Donald P. Watson, O.A.C.’34, with the assistance of the Ontario government’s OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD. A number of awards ranging from $500 to $2,000.

**Donor(s):** The estate of Dr. Donald P. Watson

**Qualification(s):** Undergraduate students majoring in Horticultural Science, Landscape Architecture, Agronomy, Agricultural Science or Environmental Science, who have completed a minimum of 10.00 credits and who have demonstrated financial need. Recipients must have satisfactory academic standing in their last 10.00 credits. The scholarships will be awarded based on financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** Several awards of $500, Several awards of $2,000

**Elizabeth Burton Bursaries [I3563]**

Mrs. Elizabeth Burton, with the assistance of the Ontario government’s OSOTF program, establishes these bursaries to assist full-time students with demonstrated financial need. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD. A number of awards totalling $2,900.

**Donor(s):** Mrs. Elizabeth Burton

**Qualification(s):** Students in second, third or fourth year with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** Several awards of $2,900

**George and Margaret J. Miles Memorial Bursary [I3544]**

Provided in memory of George and Margaret J. Miles, life long supporters of education. Apply with a completed Need Assessment Form and a letter describing involvement in extra-curricular activities to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

**Donor(s):** The Miles Family

**Qualification(s):** All undergraduate arts and social science students with demonstrated financial need who are in or beyond semester 3 and have at least a 75% cumulative average in all courses completed to date are eligible to apply. Preference will be given to students who participate and provide leadership in extra-curricular or community activities (examples include student government, charitable organization, volunteer work, Big Brothers/Sisters, contributions to school and/or community, etc.). Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** Several awards of $2,900

**Gryphon Investment Council Bursaries [I3513]**

Established by Gryphon Investment Counsel, with the assistance of the Ontario government’s OSOTF program, awards are given to students who have demonstrated financial need. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

**Donor(s):** Gryphon Investment Council Inc.

**Qualification(s):** Full-time students with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 2 awards of $1,500
Guelph Compassionate Health Bursary [I3061]

This bursary has been established and approved by the Student Health and Dental Committee to assist students facing unforeseen health needs above and beyond the benefits offered through the mandatory University of Guelph student health plan. Submit a Financial Need Assessment application accompanied by the physician recommendations, cost estimates and physician contact information to the Awards Officer, Student Financial Services. The application will be reviewed throughout the semester to handle emergencies immediately.

Donor(s): Student Health and Dental Plan Reserve
Qualification(s): All currently registered students at the University of Guelph that are covered under the University of Guelph mandatory Student Health Plan. The student must require treatment for a condition not currently or completely covered by the Student Health Plan.
Amount: Several varies to a maximum $1,500

Guelph Student Assistance Program [I3056]

These bursaries have been established and approved by undergraduate students through student referendum to assist undergraduate and University of Guelph campus diploma students in financial need. Apply to Student Financial Services with a completed Need Assessment Form by October 7. Typically, awarded in the Winter semester.

Donor(s): Undergraduate Students
Qualification(s): Full-time undergraduate students registered in any degree program with demonstrated financial need. Preference will be given to students who are not eligible for provincial and/or federal assistance programs such as Ontario Student Assistance Program (OSAP) and/or Canada Student Loan Program (CSLP).
Amount: Several awards of varying amounts up to $1,000

Gwen Karr Memorial Bursary [I3101]

Mr. T.K.C. Karr, O.A.C. ’32, has provided an endowment fund to assist students in a degree or diploma program of the Ontario Agricultural College. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester.

Donor(s): Mr. T.K.C. Karr, OAC ’32
Qualification(s): O.A.C. students with demonstrated financial need
Amount: Several varies

Howard and Myrtle Rogers Bursaries [I3537]

Provided by the Estate of Howard and Myrtle Rogers, with the assistance of the Ontario government’s OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

Donor(s): The Estate of Howard and Myrtle Rogers
Qualification(s): Students with demonstrated financial need. Preference will be given to students from Wellington County. Students are encouraged to apply for an award in each year of study. The award may have been held in previous years but students must demonstrate on-going financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).
Amount: 10 up to $2,000

International Emergency Medical Aid Assistance [I3059]

The University of Guelph provides support to International undergraduate students that are faced with unexpected, or unforeseen financial shortfalls due to a medical issue not covered by UHIP or the Student Dental/Medical insurance plans. Students should apply to the International Student Advisor, in the Centre for International Programs office, by October 7. Awarded in the Winter semester. ACCESS AWARD

Donor(s): Mrs. Norma L. Valeriote
Qualification(s): Students who are citizens of Third World countries, as defined by the United Nations, who are registered in a degree or diploma program and who demonstrate financial need.
Amount: Several varies

Guelph Student Assistance Program [I3056]

These bursaries have been established and approved by undergraduate students through student referendum to assist undergraduate and University of Guelph campus diploma students in financial need. Apply to Student Financial Services with a completed Need Assessment Form by October 7. Typically, awarded in the Winter semester.

Donor(s): Undergraduate Students
Qualification(s): Full-time undergraduate students registered in any degree program with demonstrated financial need. Preference will be given to students who are not eligible for provincial and/or federal assistance programs such as Ontario Student Assistance Program (OSAP) and/or Canada Student Loan Program (CSLP).
Amount: Several awards of varying amounts up to $1,000

Irving and Grace Black Memorial Bursary [I3051]

Established in memory of Irving and Grace Black, by friends and family to recognize their many contributions to young people. Irving, a well-known sheep breeder, was a judge at College Royal and the Royal Winter Fair for over fifty years, and Grace was active in the Women’s Institute and the Fergus Fall Fair. Apply to Student Financial Services with a completed Need Assessment Form and a letter outlining involvement in the 4-H Club and/or a Women’s Institute by October 7. Awarded in the Winter semester.

Donor(s): Family and friends of Irving and Grace Black
Qualification(s): Full-time undergraduate students registered in any degree program with demonstrated financial need. Preference will be given to applicants who are, or have been, active in the 4-H Club and/or a Women’s Institute.
Amount: 1 award of $500

Leroux Bursaries [I3535]

Established by Mr. Hector Leroux, O.A.C.’44, with the assistance of the Ontario government’s OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

Donor(s): Mr. H. Leroux
Qualification(s): O.A.C. degree students in the B.SC.(Agr.), B.S.C., B.Comm. or B.S.C.(Env.) programs with demonstrated financial need. Satisfactory academic standing is required. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).
Amount: 4 awards of $1,000

Mary I. Whitelock Bursaries [I3524]

Established by the estate of Mary I. Whitelock, a friend of the University, with the assistance of the Ontario government’s OSOTF program, to assist students who wish to study full-time but who need financial support to do so. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

Donor(s): Estate of Mary I. Whitelock
Qualification(s): All undergraduate, graduate or OAC diploma students with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).
Amount: 13 awards of $2,000

O.A.C. ’55 Access Bursaries [I3517]

Provided by the class of O.A.C. ’55 with the assistance of the Ontario government’s OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

Donor(s): O.A.C. Class of ’55
Qualification(s): Students at any semester level in an O.A.C. degree program or students enrolled in the B.SC.(Eng.) program with demonstrated financial need and a 60% minimum cumulative average. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statement on Awards).
Amount: Several awards of $500

OAC ’38 Lloyd Minshall Bursaries [I3529]

Established by OAC ’38 Alumni, with the assistance of the Ontario government’s OSOTF program, to recognize the many contributions of Lloyd Minshall to his classmates and to OAC Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

Donor(s): OAC ’38 Alumni
Qualification(s): OAC undergraduate students with demonstrated financial need in semesters 5, 6, 7 or 8 and OAC graduate students are eligible to apply. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).
Amount: 7 awards of $1,000

OAC ’57 Bursaries [I3518]

Provided by the Class of OAC ’57 with the assistance of the Ontario government’s OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

Donor(s): OAC ’57 and the OAC Alumni Foundation
Qualification(s): OAC undergraduate degree students with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).
Amount: 5 awards of $1,000
IX. Scholarships and Other Awards, Bachelor of Science in Environmental Sciences

### Robb Travel Grants [T3028]

These travel grants have been provided in recognition of her love of agriculture, by the estate of Martha Robb, Paris, Ontario. Apply to the Dean, O.A.C. by April 15. Varying amounts (80% of the travel costs will be covered up to $750 per student).

- **Donor(s):** The estate of Martha Robb
- **Qualification(s):** Students who are attending another university on a Letter of Permission.
- **Amount:** Several of various amounts

### Robert Auger Humanitarian Bursary [T3058]

This award, of up to $500, has been established through the generosity of staff in the Office of Registrarial Services, family and friends of Robert Auger, a former Associate Registrar at the University of Guelph. It is intended as an emergency fund to assist students who unexpectedly find themselves in difficult financial circumstances, to provide grocery, and textbook vouchers.

- **Donor(s):** Office of Registrarial Services
- **Qualification(s):** Students who require assistance through this fund should apply in confidence to the Assistant Registrar, Financial Aid, Student Financial Services.
- **Amount:** Several of various amounts

### Toronto Co-operatives R.P. Forshaw Bursary [I3013]

The Co-operatives, Credit Unions, friends and associates of Prof. R.P. Forshaw have established this bursary. Apply to Student Financial Services with a completed Need Assessment Form by October 7. Awarded in the Winter semester.

- **Donor(s):** The Co-operatives, Credit Unions, friends and associates of Prof. R.P. Forshaw
- **Qualification(s):** Undergraduate students who have financial need. Preference may be given to candidates who have been or are members of a co-operative or credit union.
- **Amount:** 1 award of $400

### Ontario Federation of Agriculture Bursaries [I3520]

Provided by the Ontario Federation of Agriculture and the O.A.C. Alumni Foundation with the assistance of the Ontario government's OSOTF program. Apply with a letter and a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

- **Donor(s):** Ontario Federation of Agriculture
- **Qualification(s):** O.A.C. students with demonstrated financial need enrolled in the B.Sc.(Agr.), B.Comm., B.Sc. or B.Sc.(Env.) programs. Preference will be given to students from farm families who have participated in 4H and/or rural community activities. A student may receive up to three bursaries annually ($1,500). Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).
- **Amount:** 12 awards of $500

### University of Guelph Access Bursaries [I3522]

Provided by alumni and friends of the University, with the assistance of the Ontario government's OSOTF program, to support undergraduate, graduate or O.A.C. (Guelph) diploma students who wish to study full-time but who need financial support to do so. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD. Variable amounts from $500 to $2,000

- **Donor(s):** Alumni and Friend of the University of Guelph
- **Qualification(s):** Full-time students with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).
- **Amount:** Several of various amounts

### University of Guelph Alumni Association Access Bursaries [I3523]

Established by the University of Guelph Alumni Association, with the assistance of the Ontario government's OSOTF program, to support students who wish to study full-time but who need financial support to do so. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD.

- **Donor(s):** University of Guelph Alumni Association
- **Qualification(s):** Full-time in-course students with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).
- **Amount:** 2 awards of $1,000
University of Guelph International Bursary [I3048]
The University of Guelph provides support to International undergraduate students that are faced with unexpected, or unforeseen financial shortfalls while registered on campus. Students should apply to Benny Quay, in the Centre of International Programs office by completing an International Student Financial Need Assessment Form. These bursaries are awarded on an on-going basis.

Donor(s): University of Guelph
Qualification(s): Any International student registered in a degree program at the University of Guelph with a minimum of 1.5 course credits.
Amount: Several varies

University of Guelph Undergraduate In-Course Bursaries (MET-TR-UG) [I3037]
The University of Guelph offers in-course bursaries to students who have demonstrated financial need. Apply to Student Financial Services, with a completed Need Assessment Form by October 7. Awarded in the Winter semester.

Donor(s): University of Guelph
Qualification(s): A degree program with demonstrated financial need and a minimum of 2.0 course credits completed.
Amount: Several awards ranging in value from $100 to $3,000

University of Guelph Undergraduate In-Course Bursaries (NON OSAP TR) [I3047]
The University of Guelph offers in-course bursaries to students who have demonstrated financial need. Apply to Student Financial Services, with a completed Need Assessment Form by October 7. Awarded in the Winter semester.

Donor(s): The University Police
Qualification(s): Full-time undergraduate and graduate students who have demonstrated financial need.
Amount: Several varies

University Student Assistance Program [I3057]
These bursaries have been established and approved by the University of Guelph to assist undergraduate and University of Guelph campus diploma students in financial need. Apply to Student Financial Services with a completed Need Assessment Form by October 7. Typically, awarded in the Winter semester.

Donor(s): University of Guelph
Qualification(s): Full-time undergraduate students registered in any degree program with demonstrated financial need. Preference will be given to students who are not eligible for provincial or federal assistance programs such as Ontario Student Assistance Program (OSAP) and/or Canada Student Loan Program (CSLP).
Amount: Several awards varying amount to a maximum of $1,000

In-course Travel Grants

A.W. Archibald Memorial Travel Grant [T4541]
Mr. A.W. Archibald, OAC '33 with the assistance of the Ontario government's OSOTF program, provide these travel grants to students who plan to travel for a semester abroad or to attend other schools outside of Canada for workshops or other academic related purposes. Apply to Student Financial Services with a letter outlining proposed travel plans and academic purpose accompanied by a letter of support from a faculty member or student advisor, a travel budget, and a completed Financial Need Assessment Form by October 7. ACCESS AWARD.

Donor(s): A.W. Archibald, OAC '33
Qualification(s): Undergraduate students in any OAC program with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).
Amount: Several up to $1000

Arthur D. Latornell Undergraduate Travel Grants [T0058]
An endowment fund established in memory of Arthur D. Latornell, OAC '50, who had a life-long professional career in resource management and conservation and a special interest in helping young people. The funds are given to provide twenty-five travel grants. These travel grants are offered to assist students in attending conferences, courses, co-op, student exchanges or study abroad programs in these areas. Students may receive this grant only once. Apply to Student Financial Services. Deadline dates are June 1 for Fall travel, October 1 for Winter travel, and February 1 for Summer travel. Up to 80% of estimated travel costs to a maximum of $1,000.

Donor(s): The Estate of Arthur D. Latornell
Qualification(s): Students in semester 3 and above. Students must have at least a 70% average and a primary area of interest related to natural resources management, environmental science, conservation, soil science and/or rural development. Students will be asked to submit a one-page review of their travel experience, including the role the travel grant played, to the University after completion of the travel.
Amount: several up to a maximum of $1000

Canadian Friends of the Hebrew University in Jerusalem Travel Bursary [T4532]
The Canadian Friends of the Hebrew University of Jerusalem, with the assistance of the Ontario government's OSOTF program, have established these travel scholarships to assist students study at the Hebrew University of Jerusalem. Apply by letter with a completed Need Assessment Form to Student Financial Services by May 1. ACCESS AWARD. Up to three awards totalling $7500.

Donor(s): Canadian Friends of the Hebrew University in Jerusalem
Qualification(s): Undergraduate degree students in either the second or third year of study, Masters students in the first year of study, and Doctoral students in the first three years of study are eligible to be considered. Applicants must provide documentation that they have approval from the Hebrew University of Jerusalem (i) to take courses and (ii) for the period of the visit. Students must also arrange appropriate University of Guelph approvals for a "Letter of Permission" prior to applying. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).
Amount: 3 Awards with varying amounts

J. Ross Cavers International Exchange Scholarship [T0051]
OAC ’53 provides this scholarship in memory of J. Ross Cavers, their honorary year member and Professor Emeritus. Apply to Student Financial Services, by April 1.

Donor(s): OAC ’53
Qualification(s): Undergraduate student in OAC with travel and/or housing costs associated with a semester or more of academic study or cooperative work experience through a recognized university outside Canada. Students must have completed [7.50] credits and have satisfactory academic standing in their undergraduate course work. Preference will be given to a candidate who has exhibited qualities of leadership.
Amount: 1 award of $1,000

Massey Fund Travel Scholarships [T0417]
Travel scholarships available from the Massey Fund. Not tenable with other awards that support travel costs. Apply by letter outlining the study abroad/exchange program and travel costs to the OAC Dean's Office by April 15.

Donor(s): OAC Awards Committee
Qualification(s): OAC undergraduate students who are participating in an approved study abroad or exchange program outside Canada. Academic standing in the last two full-time semesters or equivalent will be used to determine recipients.
Amount: 1 award of $750

OAC ’47 Travel Bursaries [T3505]
Provided by OAC’47 on the occasion of its 50th anniversary and with the assistance of the Ontario government's OSOTF program. Apply by letter with a completed Travel Award Application and a Need Assessment Form for Travel awards to Student Financial Services by October 1, February 1 or June 1. ACCESS AWARD.

Donor(s): OAC ’47
Qualification(s): OAC undergraduate students who have demonstrated financial need and who are participating in a study abroad program for academic credit at an approved institution. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).
Amount: 3 awards of $600
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<th>Scholarship Name</th>
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| **Richard and Sophia Hungerford Undergraduate Travel Scholarships [T4508]** | The estate of Richard and Sophia Hungerford, with the assistance of the Ontario government's OSOTF program, has established an endowment to provide travel scholarships to undergraduate students with demonstrated financial need who wish to study in developing countries, or attend conferences on development. Apply to Student Financial Services with a description of the intended travel, an estimate of the travel costs and a completed Need Assessment Form at least one month prior to departure. Deadline dates are June 1 for Fall travel, October 1 for Winter travel, and February 1 for Summer travel. ACCESS AWARD.  
  
  **Donor(s):** The Estate of Richard Hungerford  
  **Qualification(s):** Registered undergraduate students with demonstrated financial need who have at least a 70% cumulative average in the last 2 semesters of full-time equivalent study are eligible. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).  
  **Amount:** Several awards of varying amounts to a maximum of $1,000 |
| **Roderick Long International Travel Grant [T0360]** | Offered in memory of the late Roderick Long, O.A.C.'54. Up to eighty percent of the travel costs associated with the study outside of Canada program will be covered up to a maximum of $1,000 per student. Application by letter should be made to the Dean O.A.C. by April 15, and include a description of the study abroad program. Travel grant (or grants) totalling $1,500.  
  
  **Donor(s):** Mr. Roderick W. Long  
  **Qualification(s):** O.A.C. undergraduate student who is studying outside of Canada on an approved program for one or more semesters  
  **Amount:** Several awards of $1,500 |
| **University of Guelph Travel Scholarships [T0421]** | The University of Guelph, through the sale of Guelph London House, has established an endowment to provide travel scholarships to undergraduate and graduate students who wish to study outside of Canada but need financial support to do so. A total of $35,000 is available in the fund. Apply to Student Financial Services with a completed Travel Grant Application and Financial Need Assessment Form by October 1 for Winter travel, February 1 for Spring travel and June 1 for Fall travel.  
  
  **Donor(s):** University of Guelph  
  **Qualification(s):** Registered undergraduate and graduate students that have completed 5.0 credits with demonstrated financial need who have a minimum 70% cumulative average in the last two semesters of full-time equivalent study are eligible to apply. The value of the award will depend on the assessed financial need. The scholarship can cover additional costs of travelling outside of Canada including: airfare, administrative costs, and differential costs of accommodation.  
  **Amount:** Several up to $1,000 |
# Bachelor of Science in Technology

Please refer to the General Statement on Awards for:

- Award Eligibility
- ACCESS Awards Eligibility
- Ontario Student Opportunity Trust Fund (OSOTF) Program
- How Awards are Paid

The University reserves the right to amend awards subject to the availability of funds.

## Entrance Scholarships

### Angelo and Frank Agro Undergraduate Scholarship [E0520]

Provided by the Agro Scholarship Fund. Apply by April 1 to Student Financial Services, including a covering letter describing your activities within 4H (details of 4H club membership, creativity in support of 4H activities, participation in activities and events, volunteer leadership roles, etc.) and a letter of reference from a 4H club official attesting to your involvement. $4,000 ($1,000 annually for four years).

**Donor(s):** The Frank Agro Estate

**Qualification(s):** Full-time students entering semester 1 who have attained a minimum 80% admission average in their graduating year from high school. The scholarship will be awarded to the eligible student demonstrating the greatest past or continuing involvement with 4H activities. Recipients must maintain full-time studies and at least a 70% program average each year for continuation of the award.

**Amount:** 1 award of $4,000

### Board of Governors’ Scholarships [E0317]

The scholarship will be paid in eight equal installments with the first and second payments payable shortly after registration in semesters 1 and 2. The 3rd to 8th payments are contingent upon obtaining a minimum average of 80% over the previous two semesters of full-time study. Students who fail to qualify for a payment may re-qualify by subsequently obtaining an 80% or better average over the previous two semesters of full-time study. Application not required. Twenty-five awards of $8,000 ($2,000 annually for 4 years).

**Donor(s):** Board of Governors

**Qualification(s):** Outstanding students entering semester 1

**Amount:** 25 awards of $8,000

### December 6th Memorial Scholarship [E0005]

This scholarship, established by the Faculty Association, is awarded in memory of the fourteen women murdered in December 1989 at Ecole Polytechnique and is intended to attract women to a profession that is largely comprised of men. Application not required. $2,250 ($750 in each of semesters 1, 2, 3, and 4).

**Donor(s):** University of Guelph Faculty Association

**Qualification(s):** Female student who is a Canadian Citizen or Permanent resident of Canada enrolled in the College of Physical and Engineering Science. The recipient will be selected on the basis of academic performance. For continued eligibility beyond semester 1, the student must maintain a minimum of 70% cumulative average. Demonstrated financial need may also be considered.

**Amount:** 1 award of $2,250

### Earl B. MacNaughton Entrance Scholarships [E0172]

Established by friends, faculty, staff, alumni and students of the University to honour Earl B. MacNaughton, former head of the Department of Physics and founding Dean of the College of Physical Science. Application not required.

**Donor(s):** Earl B. MacNaughton

**Qualification(s):** Students with high academic standing, entering an honours program in the College of Physical and Engineering Science. Emphasis will be given to academic achievement in high school science and mathematics.

**Amount:** 4 awards of $1,000

### Gordon W. Innes Scholarship [E0140]

Established by the Gordon W. "Sparky" Innes Scholarship Fund Committee of the Woodstock Agricultural Society. Application not required.

**Donor(s):** Gordon W. "Sparky" Innes Scholarship Fund Committee of the Woodstock Agricultural Society

**Qualification(s):** Student from Oxford County with the highest admission average.

**Amount:** 1 award of $1,400

## Honours Physics Scholarship [E0132]

Awarded by the Department of Physics, these awards will be made based on the student's admission average. A minimum 85% admission average is required to be considered. Application not required.

**Donor(s):** Department of Physics

**Qualification(s):** Students entering the first semester level of the B.SC. program or the B.SC. (Tech.) program with high academic standing and a declared intention of pursuing a major in Physics, Physics and Technology. Biophysics, Chemical Physics, or Theoretical Physics, or a Co-op stream of these programs.

**Amount:** Several awards of $4,000

### International Student Entrance Scholarships [E0408]

In support of the University's strategic direction of internationalism, entrance scholarships are available each Fall semester to the top international students entering their first semester of an undergraduate degree program at the University of Guelph. Applicants must submit all relevant documentation for admission consideration by March 1 to be considered for a scholarship. These scholarships are awarded on a competitive basis. Application not required.

**Donor(s):** University of Guelph

**Qualification(s):** Students on a "student visa" entering an undergraduate degree program at the University of Guelph with a record of high academic achievement and extracurricular involvement, and studying full-time. This award is offered for the first year of study.

**Amount:** Several awards ranging in value from $500 - $6,000

### J.D. MacLachlan Scholarship [E0170]

Provided by the family of J.D. MacLachlan. Application not required.

**Donor(s):** The J.D. MacLachlan Trust

**Qualification(s):** Student entering the University with the highest admission average.

**Amount:** 1 award of $1,500

### Lincoln Alexander Chancellor's Scholarship [E0493]

These scholarships, named to honour Lincoln Alexander, Chancellor of the University of Guelph and former Lieutenant Governor of Ontario, on his 80th birthday, are awarded to academically distinguished entering students who are Aboriginal, persons with a disability or members of a racial minority, and who have made significant contributions to their schools and communities and demonstrated the potential to become leaders in society. These scholarships are intended to enhance student diversity and are amongst the most prestigious entrance awards at the University of Guelph. Nominations are made by high school principals and are to be sent to the Associate Registrar, Student Financial Services, by March 1. Two awards of $20,000 ($5,000 annually for 4 years).

**Donor(s):** Many Donors

**Qualification(s):** Entering students of academic distinction who are Aboriginal, persons with a disability or members of a racial minority, and who have made significant contributions to their schools and communities and demonstrated the potential to become leaders in society. Financial need may be taken into consideration.

**Amount:** 2 awards of $20,000

### McArthur-Humphries Scholarship [E0183]

Provided by the Wilhelmina McArthur Humphries Trust Fund. This scholarship is awarded to students entering any undergraduate degree program and are based on the highest admission average. Application not required.

**Donor(s):** Wilhelmina McArthur-Humphries Trust Fund

**Qualification(s):** Students entering semester 1 with a minimum 75% admission average. Preference will be given to those students from Lanark and Wellington Counties. An equal number of awards are available to students from each county. In the case of insufficient eligible applicants from one county, the awards will be given to eligible applicants from the other county.

**Amount:** 12 awards of $1,000

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2005-2006 University of Guelph Undergraduate Calendar Last Revision: October 18, 2005
P.A.J. Clarke Family Scholarship [E0381]
Paul and Aileen Clarke and their family established the endowment for this entrance scholarship in honour of Paul's father, the late Jack Clarke, a Blenheim area farmer. Apply by letter outlining extracurricular and/or community activities, ensuring that you have completed a Need Assessment Form for Entrance Awards, and submit to Student Financial Services by April 1. Students who have applied to the University for admission will receive information on completing a Need Assessment Form for Entrance Awards from the University early in the calendar year. This award is not tenable with the President's or Lincoln Alexander Chancellor's Scholarship. Annual payments are contingent upon full-time enrolment and maintaining a minimum 70% average on the previous Fall and Winter semesters. One award of $12,000 ($3,000 annually for 4 years).

Donor(s): Paul and Aileen Clarke
Qualification(s): Students with a minimum 80% average with a record of leadership and community participation are eligible. Preference will be given to candidates from Blenheim district or Kent County and who were raised, or have worked, on a farm. Students may be contacted to provide special need circumstances if there is a short list of equal candidates. One award of $12,000

Amount: $12,000

President's Scholarship [E0238]
The most prestigious entrance awards at the University of Guelph. Twelve scholarships of $20,000 ($5,000 annually), named to honour their donors or distinguished members of the University, are awarded to entering students of academic distinction who have made significant contributions to their schools and communities and demonstrated the potential to become leaders in society. Nomination packages are sent to Canadian high schools each fall. This award is tenable with the University of Guelph Entrance Scholarship, the University of Guelph Accessibility Scholarship or the Registrar's Entrance Scholarship, but no other Entrance Scholarships. High school principals must submit their nominations using the application material sent to the school's Guidance Office in the fall, to the Associate Registrar, Student Financial Services, by March 1.

Donor(s): A number of President's Scholarships have been named in honour of the following people and/or donors:
Dick Brown
Two of the scholarships, endowed by Dr. Patrick Lett are awarded to winners whose leadership qualities best reflect those demonstrated by Dick Brown in University Athletics from 1968 to 1988.

Cecil H. Franklin and Ingrid Franklin
In honour of Cecil Franklin, former Chair of the Board of Governors and Honorary Fellow of the University, the University of Guelph has named one of these twelve prestigious entrance awards to recognize his financial contributions and volunteer support to the President’s Entrance Scholarship program.

Charles S. Humphrey
In memory of Charles S. Humphrey, a former President of Hart Chemical Company Canada Ltd. and long-time friend, the University has named one of these twelve prestigious entrance awards to recognize his financial contribution through his estate to the President’s Entrance Scholarship program.

Jack R. Longstaffe
The University of Guelph has named one of these twelve prestigious entrance awards in memory of Jack R. Longstaffe to recognize his financial contribution through his estate to the President’s Entrance Scholarship program.

Burton C. Matthews
The University of Guelph has named one of these twelve prestigious entrance awards in honour of Burton C. Matthews to recognize his insight and leadership in establishing the President's Entrance Scholarship program.

Kathleen and Frederick Metcalf
Mr. and Mrs. F.T. Metcalf of Guelph have endowed this award. After a distinguished career in cable TV, broadcasting and publishing, the late Mr. Metcalf retired as President of Maclean Hunter Ltd. and Chairman of the Board of Maclean Hunter Cable Ltd. He was Honorary Chairman of Maclean Hunter Cable Ltd. and a member of the University of Guelph Heritage Board (1996).

Rol-land Farms Limited
Two of the scholarships are endowed by the four shareholders of Rol-land Farms Limited of Blenheim, Ontario, Hank, Peter, Arthur and Eric Vander Pol and their families. The Vander Pol families are generous supporters of a number of University projects and programs.

Lillian Stewart Usher
The University of Guelph has named one of these twelve prestigious entrance awards in honour of Lillian Stewart Usher a friend of the University to recognize her financial contribution through her estate to the President’s Entrance Scholarship program.

Qualification(s): Entering students of academic distinction who have made significant contributions to their schools and communities and demonstrated the potential to become leaders in society.

Amount: 12 awards of $20,000

The Jack and Lillian MacDonald Scholarship [E0379]
Family, friends, and colleagues of Lillian MacDonald and Dr. Jack MacDonald, Vice-President, Academic, of the University of Guelph from 1986 to 1995, have established a scholarship that recognizes their commitment to increasing the accessibility of post-secondary education to aboriginal persons. Apply by letter to Student Financial Services by April 1.

Donor(s): Jack and Lillian MacDonald
Qualification(s): In the first instance, the award will be given to an entering student coming from the Grand River Polytechnic Institute (GRPI) and who has received the highest cumulative average in the Native University Access Program. If there is no entering student in any one year, the scholarship will be awarded to the in-course student who is a graduate of the GRPI who has the highest cumulative average at the University.

Amount: 1 award of $900

University of Guelph Entrance Scholarships [E0291]
This scholarship is based on the final admission average and program of study that is calculated by Admission Services, based on 12U, 12M, or OAC courses. These will be awarded based on the final high school grades that are submitted to the University in July. A minimum 85% final admission average guarantees an award. The scholarship will be applied directly to the student’s financial account in two equal payments in the Fall and Winter Semesters. You can view the scholarship amounts at: http://www.uoguelph.ca/studinf/sall_current_meri.html. Application not required.

Donor(s): University of Guelph
Qualification(s): Students entering their first year of post-secondary studies for the first time and have a minimum 85% final admission average.

Amount: Several awards ranging in value from $1,500 to $3,000

University of Guelph Faculty Association Scholarship [E0292]
Award is payable at $750 per annum in the student’s 1st, 3rd, and 5th semester levels, provided a cumulative average of at least a 70% is maintained. To receive the final payment, the recipient would normally be entering the 5th semester level within a period of 3 calendar years from the date of admission. Application not required.

Donor(s): University of Guelph Faculty Association
Qualification(s): Student entering an undergraduate degree program at the University of Guelph with the highest admission average who has been a resident in the County of Wellington during the previous twelve months.

Amount: 1 award of $2,250

W. Penri Morris Memorial Scholarship [E0430]
Established by the family in memory of Penri Morris, who was killed World War II action in 1944 at the age of 21. Penri grew up on the family fruit farm near Forest, Ontario. After graduating from high school, he joined the Royal Canadian Air Force and was attached to the Royal Air Force Bomber Command as a navigator at the time of this death. Awarded to the student with the highest cumulative academic performance above 75% in all courses of the last year in high school study (full-time or equivalent study). Application not required.

Donor(s): Prof. Rosalina Morris
Qualification(s): Students entering first year of any undergraduate program from North Lambton Secondary School in Forest, Ontario, in their absence, from Lambton County, and their absence, from Ontario.

Amount: 1 award of $1,000

W.C. Blackwood Memorial Entrance Scholarship in Physics [E0029]
Application not required.

Donor(s): Mr. B.A. Ward
Qualification(s): Student entering the first semester level of the B.SC. program, who declares the intention to pursue an honors program in Physics.

Amount: 1 award of $550

Entrance Scholarships with Financial Need

Bill Klepp Memorial Award [E0150]
Priority will be given to a student from Kitchener-Waterloo Collegiate and Vocational Institute. Apply by letter, to Student Financial Services, outlining extracurricular activities and by completing the online Entrance Financial Need Assessment Application (N.A.F.) by May 1. Students should complete the Entrance Financial Need Assessment application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student).

Donor(s): Ross and Mary Lou Klepp
Qualification(s): Presented to a student entering semester 1 from the cities of Kitchener or Waterloo who has demonstrated involvement in extracurricular activities who has shown satisfactory academic performance and who has financial need.

Amount: 1 award of $500
### Registrars Entrance Scholarships [E0384]
Established by the University of Guelph to support entering undergraduate students with identified financial need. Students should complete the online Entrance Financial Need Assessment application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student). Deadline to submit the application is May 1. Scholarship offers will be made in May. This award is not tenable with the University of Guelph Accessibility Scholarship, but can be held with all other Entrance Awards.

| Donor(s): | University of Guelph |
| Qualification(s): | Students entering a full-time undergraduate program on the basis of financial need and academic merit. |
| Amount: | 500 awards of $2,000 |

### Rol-Land Farms Scholarships [E4519]
Established by Rol-Land Farms, with the assistance of the Ontario government's OSOTF program, to attract entering students who might otherwise not be able to attend university for financial reasons. Students should complete the online Financial Need Assessment application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student). Deadline to submit the application is May 1. ACCESS AWARD

| Donor(s): | Rol-Land Farms |
| Qualification(s): | Outstanding entering undergraduate degree students with demonstrated financial need and a minimum 80% cumulative average. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards). |
| Amount: | 13 awards of $2,000 |

### University of Guelph Accessibility Scholarship [E3038]
Established by the University of Guelph to support entering undergraduate students with identified financial need. Students should complete the online Entrance Financial Need Assessment application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student). Deadline to submit the application is May 1. ACCESS AWARD

| Donor(s): | University of Guelph |
| Qualification(s): | Students entering a full-time undergraduate program on the basis of financial need and academic excellence. |
| Amount: | 150 awards of $9,000 |

### Entrance Awards with Financial Need

#### Harvey Graham Bursary [E3030]
Provided by Harvey Graham (OAC ‘39). Students should complete the online Entrance Financial Need Assessment application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student). Deadline to submit the application is May 1.

| Donor(s): | Harvey Graham, OAC ‘39 |
| Qualification(s): | Student who has demonstrated financial need with preference given to a student who comes from a working farm. Students graduating from Lindsay C. V. I., Fenelon Falls Secondary School, or L.E. Weldon Secondary School will be considered. Each application must be accompanied by a reference letter from the Reeve of the student’s home township. |
| Amount: | 1 award of $1,700 |

#### International Student Entrance Bursaries [E3043]
In support of the University’s strategic direction of internationalism, entrance bursaries are available each fall to assist some of our international students entering an undergraduate degree program at the University of Guelph. Students who have applied to the University of Guelph will receive an application form.

| Donor(s): | University of Guelph |
| Qualification(s): | Students on a student visa entering an undergraduate degree program at the University of Guelph with demonstrated financial need. |
| Amount: | Several awards of $1,000, Several awards of $3,000 |

#### Justine Eves Learning Disability Accessibility Bursaries [E3057]
In memory of Justine Eves who was dyslexic and died tragically in an automobile accident in 1995, the Justine Eves Foundation together with the University of Guelph provides these awards to entering undergraduate students who have a learning disability and who has demonstrated financial need. Students should complete the online Entrance Financial Need Assessment application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student). Deadline to submit the application is May 1.

| Donor(s): | Justine Eves Foundation |
| Qualification(s): | Any entering undergraduate student that has financial need and a documented learning disability as defined by the Ontario Psychological Association. |
| Amount: | 4 awards of $3,000 |

#### Robert Arthur Stewart Bursaries [E3272]
Established in memory of Mrs. Elsa H. Stewart of Pakenham, Ontario. Mr. Stewart graduated from the Ontario Agricultural College in 1933 and Mrs. Stewart from Macdonald Institute in 1932. Applicants for these bursaries should have a good academic record and an active interest in community affairs. A recommendation from the County agricultural representative or the secondary school principal is required and should be sent to Student Financial Services by April 1. Students should complete the online Entrance Financial Need Assessment application as soon as they receive their Acknowledgement Package from Admission Services (this will come automatically after an application for admissions has been submitted by the student).

| Donor(s): | The Estate of Mrs. H. Stewart |
| Qualification(s): | Students from the Ontario Counties of Lanark and Renfrew, and the Regional Municipality of Ottawa-Carleton, entering the 1st semester of a degree program at the University of Guelph. |
| Amount: | 12 awards of $500 |

### In-course Scholarships

#### Bill Taylor Memorial Scholarship [I0280]
Applications to include a supporting letter from a coach or intramural supervisor. Apply to Student Financial Services by April 1.

| Donor(s): | AMF Canada Ltd. |
| Qualification(s): | Full-time student who has completed a minimum of 7.5 credits, but no more than 17.5 credits in the Winter term who has a cumulative 80% average or who is in the top 10% of his/her program. The recipient must have demonstrated responsibility and leadership qualities through participation in intramural or intercollegiate athletics. |
| Amount: | 1 award of $900 |

#### C.G.A. Ontario Award for Excellence [C0025]
Apply by April 1 to Student Financial Services indicating intent to pursue the CGA program of professional studies. One award of $150 plus a credit equaling one year's tuition and course fees towards the CGA program (approximate value: $2,000)

| Donor(s): | Certified General Accountants Association of Ontario |
| Qualification(s): | Graduating student who has a minimum cumulative average of 77% in Financial Accounting AGEC*2220; Management Accounting AGEC*2230; and Intermediate Accounting AGEC*3330. |
| Amount: | 1 award of $150, plus 1 year tuition and course fee towards the CGA program. (approximate value of $2,000) |

#### CFRU Volunteer Award [I0215]
Apply to the CFRU Board of Governors by April 30.

| Donor(s): | Station Manager, CFRU |
| Qualification(s): | Applicants must be registered or graduating from the University of Guelph and have volunteered at CFRU for at least one year. The recipients will be selected on the basis of academic performance and volunteer work at CFRU. |
| Amount: | 2 awards of $250 |

#### Chemical Institute of Canada Prize [I0056]
Awarded in the Winter semester. Application not required.

| Donor(s): | Chemical Institute of Canada |
| Qualification(s): | Student enrolled in an honours major program administered by the Department of Chemistry who has completed semester 6 in the previous calendar year with the highest cumulative average over 6 semesters in courses in Chemistry. |
| Amount: | 1 Silver medal |
Chemistry Club Prize for Chemistry Promotion [I0495]

Donated by the Chemistry Club, together with the Dean of CPES. Applicants should submit a one-page type-written summary outlining their efforts to promote the disciplines of chemistry within the University, or the community to the Executive of the Chemistry Club by February 1st.

**Donor(s):** The Chemistry Club

**Qualification(s):** Student at any semester level enrolled in a degree program administered by the Department of Chemistry, who has made a significant contribution to promotion of chemistry.

**Amount:** 1 award of $200

City of Guelph 175th Anniversary Awards [I0515]

Provided by the Guelph Community Foundation, in celebration of the 175th anniversary of the City of Guelph in 2002, as an investment for future generations. Apply to Student Financial Services, by October 7 of the second year of study, with a letter describing Guelph community and University community volunteer activities and extracurricular activities, a completed Need Assessment Form, and two reference letters not to exceed two pages in length from individuals familiar with the volunteer and/or community service contributions. Award may be held only once.

**Donor(s):** The Guelph Community Foundation

**Qualification(s):** Undergraduate degree students with more than 5.0 credits and less than 10.5 credits of full-time study must have maintained a cumulative 70% average in all courses completed (5.0 credits or more) in the first year study and have demonstrated leadership and financial need. Applicants must be graduates of a City of Guelph high school and be Canadian citizens or permanent residents at the time of application. Selection will include equally weighted consideration of academic performance, leadership both on and off campus and financial need.

**Amount:** 1 award of $1,000

Class of 1970 Scholarship [I0424]

Established by the Silver Anniversary celebrants to commemorate the 25th anniversary of the University Class of 1970. This award rotates among all six colleges on the main campus. The appropriate College Award Committee selects the candidate each Fall semester and the candidate is announced each October. Application not required.

**Donor(s):** Class 1970: 25th Reunion Gift

**Qualification(s):** Outstanding student in any degree program who has attained at least an 80% average in two consecutive semesters resulting in placement on the Deans’ Honours List.

**Amount:** 1 award of $1,400

College of Physical Engineering Science Academic Scholarship [I0073]

Application not required.

**Donor(s):** College of Physical and Engineering Science

**Qualification(s):** Offered in the Winter semester to students who have completed at least 15.0 course credits in a College of Physical and Engineering Science programme and have excellent grades but have not received awards recently.

**Amount:** 2 awards of $250

College of Physical Engineering Science Graduation Prize [C0075]

The winner will be selected in May from all students who have completed the program in the previous twelve months. Application not required. One award of $250 and a commemorative plaque.

**Donor(s):** College of Physical and Engineering Science

**Qualification(s):** Student graduating with the highest cumulative average from an honours B.SC. program in a Physical and Engineering Science area.

**Amount:** 1 award of $250, 1 Commemorative plaque

College of Physical Engineering Science Scholarship [I0076]

Awarded in the Fall semester to a student who has completed semester 6 in the previous Fall, Winter or Spring semesters and who is enrolled in Year 4 of a College of Physical and Engineering Science program. Application not required.

**Donor(s):** College of Physical and Engineering Science

**Qualification(s):** Recipients will be selected on the basis of a high average (minimum 80% average required) in courses normally taken in Year 3.

**Amount:** 1 award of $250

Collins Barrow Award [I0040]

Offered by Collins Barrow, a national firm of Chartered Accountants. Awarded in the Winter semester. Application not required.

**Donor(s):** Collins Barrow Chartered Accountants

**Qualification(s):** Student with the highest grade in course AGEC*3330, Intermediate Accounting, in the Fall semester. In the event of a tie, the scholarship will be given to the student with the highest cumulative average in their program.

**Amount:** 1 award of $500

Copernicus Scholarship in Physics [I0081]

Application not required.

**Donor(s):** The College of Physical and Engineering Science

**Qualification(s):** Students who have completed 7.5 course credits and are registered in one of the majors programs in Physics. To be eligible, students must have completed the courses PHYS*2440 and PHYS*2460 with a minimum of an A average. The awards will be made to the students with the highest average in the Physics courses taken in the Fall of the previous year and in PHYS*2440 and PHYS*2460.

**Amount:** 4 awards of $500

David F. Boyes Apiculture Scholarship [I0031]

Established in memory of David Boyes, a technician in the Apiculture Field Laboratory. Application not required.

**Donor(s):** The Apiculture Club

**Qualification(s):** Student registered in the Fall semester who achieves high academic standing in Introductory Apiculture (ENVB*2210) in the previous year, demonstrates an interest in apiculture and who has participated in extracurricular activities.

**Amount:** 1 award of $150

Deans’ Scholarships [I0323]

Offered by the Board of Governors. Recipients will be selected by each of the College Awards Committees. Winners will be notified in the Fall semester. Application not required.

**Donor(s):** Board of Governors

**Qualification(s):** Students registered in any degree program. The primary academic criteria is placement on the Deans’ Honours List for two consecutive semesters, excluding semesters 7 and 8, in the previous Fall/Winter/Spring sequence.

**Amount:** 150 awards of $1,000

Dr. Caesar V. Senoff Memorial Scholarship for Excellence in Chemistry [I0517]

The Senoff family and the College of Physical and Engineering Science, together with the University of Guelph Faculty Association and friends, have established this scholarship in memory of Dr. Caesar V. Senoff. Dr. Senoff discovered the first dinitrogen complex while completing his PhD at the University of Toronto, opening up a new field of chemistry. A valued member of the University of Guelph faculty from 1968 to 1996, his positive influence continues through his students and colleagues. Application not required.

**Donor(s):** Senoff family and the College of Physical and Engineering Science, together with the University of Guelph Faculty Association and friends

**Qualification(s):** Student majoring in any Chemistry program who has completed between 7.5 and 9.75 credits and who has the highest cumulative average over 80%.

**Amount:** 1 award of $500

E.B. MacNaughton Convocation Prize [C0171]

Established by the College of Physical and Engineering Science to honour Earl B. MacNaughton, former head of the Department of Physics and founding Dean of the College of Physical Science. Application not required. One award of a plaque-mounted medal and $250.

**Donor(s):** The College of Physical and Engineering Science

**Qualification(s):** The College of Physical and Engineering Science nominee for the Winegard Medal.

**Amount:** 1 award of $250, 1 Plaque-mounted medal

Egelstaff Scholarship [I0397]

In honour of University Professor Emeritus and former Chair of the Department of Physics, Peter A. Egelstaff. Awarded in the Winter semester. Application not required.

**Donor(s):** The Department of Physics

**Qualification(s):** Student who has completed 12.5 course credits, is currently registered in one of the majors in Physics and has a high cumulative average (of at least 80%) in the required Physics courses normally taken in Years 2 & 3 of the major.

**Amount:** 1 award of $500
**Evelyn Matheson Pepper Memorial Scholarship [I0538]**
The daughters and grandchildren of Evelyn Matheson Pepper, a Mac ’33 graduate, provide this scholarship. Application not required.  
**Donor(s):** Ms. Barbara Stuart and Ms. Susan Pepper  
**Qualification(s):** Student who achieves the highest grade in the course FRHD*3200, Practicum in Child, Youth and Family I, offered by the department of FRAN  
**Amount:** 1 award of $1,000

**Floyd Roadhouse Prize in Analytical Chemistry [I0247]**
Presented in the Winter semester. Application not required.  
**Donor(s):** Colleagues, students and friends of Professor F.E.B. Roadhouse  
**Qualification(s):** Student with the highest grade in CHEM*2400 Analytical Chemistry in the previous calendar year, who is continuing in an honours major program administered by the Department of Chemistry. In the event of a tie, laboratory performance will be considered.  
**Amount:** 1 award of $200

**George A. Farley Scholarship [I0099]**
Established in memory of George A. Farley, a chemistry graduate of the Class O.A.C./’33, and presented in the Winter semester. Application not required.  
**Donor(s):** James M. Farley  
**Qualification(s):** Student enrolled in a Co-op program administered by the Department of Chemistry and who has completed their second work term within the preceding calendar year. Work term reports, work term assessments and course grades will be considered. The student must have a cumulative average of at least 80%.  
**Amount:** 1 award of $250

**George A. Gray OAC ’51 Varsity Scholarships [I0487]**
Established in memory of George Gray, OAC ’51, a Guelph football lineman and a great player of the game. Apply to Student Financial Services by October 7 providing a covering letter describing on- and off-campus academic and extra-curricular activities and a completed Need Assessment Form. Awarded at the annual Athletics Banquet.  
**Donor(s):** Mrs. George A. Gray  
**Qualification(s):** Undergraduate degree or diploma students who are members of varsity teams and in the second, third, fourth or fifth year of full-time study with a minimum 70% average in all courses completed in the previous year of study and have demonstrated leadership. Selection will include equally weighted consideration of academic performance, leadership and financial need. Preference will be given to members of the varsity football team. Examples of leadership may include academic tutoring, mentoring team mates, assisting in the organization and promotion of varsity and/or intramural athletics, participation on university committees, such as in residences, on Senate or in Colleges, and similar off-campus activities. Students may receive the award up to four times.  
**Amount:** 2 awards of $1,250

**Governor General’s Medal [C0044]**
Established by the Office of the Governor General of Canada. Application not required.  
**Donor(s):** The Chancellery  
**Qualification(s):** Restricted to those undergraduate students in any degree program who are graduating in June, or who have graduated in the previous two convocations, with the highest cumulative average.  
**Amount:** 1 Silver medal

**Guelph Varsity Athletic Accessibility Scholarship [I0518]**
Established by alumni and friends of the University of Guelph. Apply to Student Financial Services by October 7 providing a covering letter describing on- and off-campus academic and extra-curricular activities and a completed Need Assessment Form. Awarded at the annual Athletics Banquet.  
**Donor(s):** Alumni and friends of the University of Guelph  
**Qualification(s):** Undergraduate degree or diploma students, with at least 5.0 credits and less than 20.5 credits, who are members of a varsity athletic team and who have demonstrated financial need, are eligible to apply. Students must have maintained at least a 70% cumulative average in all courses completed in the previous year of study (minimum 3.0 credits). Selection will be based upon equally weighted consideration of academic performance and evidence of leadership qualities. Students may receive the award up to four times.  
**Amount:** 2 awards of $1,250

**Honours Applied Pharmaceutical Chemistry Scholarship [I0454]**
This scholarship is donated by the faculty of the Department of Chemistry through their scholarship trust fund and is awarded annually in the Winter semester. Application not required.  
**Donor(s):** Department of Chemistry  
**Qualification(s):** Student who has completed semester 8 of any of the majors in Physics and who has obtained the highest cumulative average in the required Physics courses of that program, normally taken in semester 5 to 8.  
**Amount:** 1 Medal

**J.B. Reynolds Graduation Medal in Physics [C0399]**
This medal is awarded to a graduating student in the Spring semester or the previous Fall or Winter Semesters. Application not required.  
**Donor(s):** Department of Physics  
**Qualification(s):** Student enrolled in the B.SC.(Tech.) honours major Applied Pharmaceutical Chemistry program who completed Year’s 2 course requirements in the previous calendar year, and has achieved the highest cumulative average, providing that at least 3.00 credits offered by the Department have been taken.  
**Amount:** 1 award of $1,000

**J.L. Campbell Scholarship [I0479]**
Established in honour of J.L. (Iain) Campbell, former Provost and Vice-President (Academic), of the University of Guelph from 1995 to 2000 and former Dean of the College of Physical and Engineering Science from 1987 to 1995. Application not required.  
**Donor(s):** Family, friends and colleagues of J.L. Campbell  
**Qualification(s):** Student who is currently registered in one of the majors in Physics and who has maintained at least 12.50 credits with a high cumulative average (at least 80%) in the required Physics courses normally taken in Year 2 and 3 of the major.  
**Amount:** 1 award of $500

**John Eccles Scholarship [I0093]**
Nominations, accompanied by appropriate résumés, are to be submitted to Student Financial Services by April 1.  
**Donor(s):** Student Housing Services  
**Qualification(s):** Full-time student registered in semester 2, 3, 4, 5 or 6 and living in residence in the Winter semester who has a cumulative 80% average or who is in the top 10% of his/her program. The recipient must have demonstrated responsibility and leadership qualities through participation in residence related activities. Residence Life Staff and paid members of Interhall Council and Hall Councils are not eligible.  
**Amount:** 1 award of $600

**Kenneth W. Hammond Award [I0045]**
The evaluation of the student will be based on the final essay in the "Environmental Perspectives and Human Choice: 5000 Days" course. The selection committee will be comprised of 4 persons: the donor, the Director of the Arboretum, the Dean of Physical and Engineering Science and the Dean of Biological Science. Application not required.  
**Donor(s):** Kenneth W. Hammond  
**Qualification(s):** Student who has best demonstrated an understanding of the world’s resource situation and its proper use by humankind.  
**Amount:** 1 award of $1,000
### IX. Scholarships and Other Awards, Bachelor of Science in Technology

#### Kip Hunter Prize [I0139]

For the best essay, written by an undergraduate in a philosophy course. The essay may be either a required assignment for a course (in which case either the student or the instructor may submit it) or it may be specially prepared for the competition. Submission of essays is to the Chair, Department of Philosophy, by the end of the 12th week of the Winter semester.

**Donor(s):** Faculty, students and staff of the Philosophy Department  
**Qualification(s):** Any undergraduate who has registered for a philosophy course during the academic year in which the prize is awarded.

**Amount:** 1 Book prize

### Lange and Prokipcak Chemistry Scholarship [I0528]

This scholarship was established by Professor Gordon L. Lange, Professor Joe M. Prokipcak, friends and colleagues. Professors Gordon L. Lange and Joe M. Prokipcak were valued members of the chemistry Faculty who retired in 2001. Their excellence in teaching was recognized within the university and nationwide, winning them a total of eleven teaching awards. Application not required.

**Donor(s):** Professor Gordon L. Lange, Professor Joe M. Prokipcak and friends and colleagues  
**Qualification(s):** Student in CPES with the highest average grade in CHEM*1040, 1050 and 2700 who has completed a minimum of 10.0 credits up to a maximum of 14.75 credits.

**Amount:** 1 award of $1,000

### Leonard Conolly Exchange Student Scholarship [I0446]

Established by students, faculty, staff and friends to honour Prof. Leonard Conolly, professor of drama, Chair of the Department of Drama, 1981-88, and Associate Vice-President Academic, 1988-1992. Apply to the Centre for International Programs by April 5, for visiting during the subsequent Fall or Winter semesters.

**Donor(s):** Students, staff, faculty and friends of Dr. Leonard Conolly  
**Qualification(s):** Full-time visiting exchange undergraduate or graduate student, registered at Guelph for at least one semester, from any country in the South (a list of eligible countries and exchange partner universities is available in the Centre for International Programs). Selection, by the Centre for International Programs, will be based on assessment of (a) a one-page submission describing the significance of the student visiting Guelph to the program of study at the partner exchange university (b) two faculty references of one-page each, and (c) consistent high performance in the course work completed, as documented by a transcript of program grades to date, submitted by the home university.

**Amount:** 1 award of $1,000

### MacKenzie Scholarship [I0398]


**Donor(s):** Department of Physics  
**Qualification(s):** Students who have completed 12.5 course credits and are currently registered in one of the majors in physics. It is given to a student with a high cumulative standing (of at least 80%) in the required physics courses normally taken in Years 2 & 3 of the major.

**Amount:** 1 award of $500

### MacNaughton Scholarship [I0422]

Established by Earl B. MacNaughton, former head of the Department of Physics and founding Dean of the College of Physical Science. Awarded in the Winter semester. Application not required.

**Donor(s):** Earl B. MacNaughton  
**Qualification(s):** Student who has completed semester 5 and is currently registered in one of the majors in Physics and has a high cumulative average (at least 80%) in the required Physics courses normally taken in semesters 3, 4 and 5 of the major.

**Amount:** 1 award of $500

### Monroe Landon Memorial Scholarship [C0153]

This scholarship is offered by the family and friends of the late Professor and Mrs. R. C. Moffatt. This scholarship will be awarded in the Fall semester. Application not required.

**Donor(s):** The friends of Monroe Landon  
**Qualification(s):** Student who has completed 10.0 course credits in one of the previous Fall, Winter or Spring semesters and is enrolled in Year 3 or higher of an honours program in Mathematics, Statistics or Physics. The recipient will be selected on the basis of a high cumulative average (minimum 80% average required) on the work in Mathematics, Statistics and Physics from the first 2 years.

**Amount:** 1 award of $200

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### Peter Mann Award for Embryology [I2032]

Provided by colleagues and friends of Dr. Mann, a scholar and teacher of Embryology from 1954-1987. Application not required.

**Donor(s):** Colleagues and friends of Dr. Mann  
**Qualification(s):** Student from any degree program completing the course BIOM*3040 Biomedical Embryology, with the highest academic standing.

**Amount:** 1 award of $100

### R.C. Moffatt Memorial Scholarship in Physics [I0535]

This scholarship was established by the Estate of Professor R.C. Moffatt. A student may be considered for this award in both third and fourth years. This award is not tenable with any other Department of Physics scholarships. Application not required.

**Donor(s):** Estate of Professor R.C. Moffatt  
**Qualification(s):** Student in year 3 or 4 (i.e., who has completed a minimum of 10.0 credits up to a maximum of 19.75 credits) enrolled as a physics major. The recipient will be selected on the basis of a high cumulative average over 80%.

**Amount:** 1 award of $900

### Society of Chemical Industries Prizes [C0333]

Application not required.

**Donor(s):** Society of Chemical Industry  
**Qualification(s):** Students who obtain the highest standing in the final year in each of the B.SC. honours major Chemistry and the B.SC.(Tech.) honours major Applied Pharmaceutical Chemistry.

**Amount:** 2 Engraved plaques

### Stephanie Wilken Volunteer Award [I0449]

Established by the Wilken family in memory of Stephanie Wilken, BA 1995. Apply to Student Financial Services with letter indicating the kind and extent of volunteer activities at the Wellness Centre by October 1. Selection committee is the Senate Committee on Awards on the recommendation of the Student Wellness Educator at the Wellness Centre.

**Donor(s):** Bev and Darlene Wilken  
**Qualification(s):** Student registered in any undergraduate degree program, who has been a volunteer for at least two semesters at the Wellness Centre. The recipient will be selected on the basis of academic performance in all courses to date and volunteer work at the Wellness Centre.

**Amount:** 1 award of $1,000

### The Jack and Lillian MacDonald Scholarship [E0379]

Family, friends, and colleagues of Lillian MacDonald and Dr. Jack MacDonald, Vice-President, Academic, of the University of Guelph from 1986 to 1995, have established a scholarship that recognizes their commitment to increasing the accessibility of post-secondary education to aboriginal persons. Apply by letter to Student Financial Services by April 1.

**Donor(s):** Jack and Lillian MacDonald  
**Qualification(s):** In the first instance, the award will be given to an entering student coming from the Grand River Polytechnical Institute (GRPI) and who has received the highest cumulative average in the Native University Access Program. If there is no entering student in any one year, the scholarship will be awarded to the in-course student who is a graduate of the GRPI who has the highest cumulative average at the University.

**Amount:** 1 award of $900

### Thomas H. Peters Scholarship [I0233]

Application not required.

**Donor(s):** Friends and associates of Thomas H. Peters  
**Qualification(s):** Student in any academic program of the University who has completed courses in Land Reclamation (e.g. CROP*2280, SOIL*3200), with a minimum 10.0 credits completed. Applicants must have a minimum of 70% cumulative average and have demonstrated an interest and aptitude in the area of crops and land reclamation.

**Amount:** 1 award of $250

### Toronto District Beekeeper's Association Scholarship [I0285]

A scholarship is offered by the Toronto District Beekeepers Association in memory of the late Hugh McLeod, past chair of the Association. Application not required.

**Donor(s):** Mr. Jack Robinson  
**Qualification(s):** The recipient will have good academic standing, have participated in extracurricular activities, and demonstrated a keen interest in beekeeping.

**Amount:** 1 award of $500
**United Steelworkers LU4120 Scholarship [I0293]**
Apply to Student Financial Services, by January 31.

**Donor(s):** United Steelworkers LU4120

**Qualification(s):** Student who is a member or former member, or who is from the immediate family of a member of United Steelworkers LU 4120, and who is entering semester 2, 3, or 4 of a degree or diploma program in the Winter semester. If there is more than one eligible candidate, the award will go to the one who has attained the highest relative class standing in his or her previous full-time semester, provided that a minimum of 70% standing is obtained.

**Amount:** 1 award of $800

**Van Stralen and Van Der Hoeven Memorial Scholarship [I0296]**
Application will be made by nominations signed by 4 currently registered students forwarded to Student Financial Services by April 1. Presentations are made in the Fall semester.

**Donor(s):** Mr. & Mrs. J. Van Stralen & family and Mr. & Mrs. Hans Van Der Hoeven & family

**Qualification(s):** Students that have completed a minimum of 2.0 credits, but not more than 7.5 in the Winter term in any degree program who have obtained a minimum of 70% standing. Selection will be made on the basis of participation in university activities and in the student's home community as well as qualities of leadership, ambition and initiative.

**Amount:** 2 awards of $400

**W.C. Winegard Medal [C0311]**
The W.C. Winegard Medal is the most prestigious graduating award of the University of Guelph. One student will be nominated by each College Awards Committee. The Senate Awards Committee will make the final selection and the medal will be awarded at Convocation in June. Application not required.

**Donor(s):** The Board of Governors' of the University

**Qualification(s):** Graduating student who excels both academically and in extracurricular activities.

**Amount:** 1 Gold medal

**W.N. Vaughan Medal [C0299]**
Prospective candidates will be nominated by Senators and the medal winner will be chosen by a committee selected by the Striking Committee. The medal will be awarded at Convocation in June. Application not required.

**Donor(s):** Friends of Walter N. Vaughan

**Qualification(s):** Student senator who has high academic standing and who has made a substantial contribution to student life and to the University, particularly through involvement in and commitment to Senate activities.

**Amount:** 1 Medal

**Waterloo-Wellington CA Association Award [I0367]**

**Donor(s):** Waterloo-Wellington Chartered Accountants Association

**Qualification(s):** Student who achieves the highest academic standing in the course AGEC*3330, Intermediate Accounting.

**Amount:** 1 award of $100

**Wellington Laboratories Prize in Environmental Chemistry [I0308]**
Provided by Wellington Laboratories. Application not required.

**Donor(s):** Wellington Laboratories

**Qualification(s):** Students registered at the time of presentation in the Winter semester in an honours major program offered by the Department of Chemistry with the highest grade in CHEM*3360 and TOX*3360 Environmental Chemistry and Toxicology in the previous calendar year.

**Amount:** 1 award of $500

**In-course Scholarships with Financial Need**

**3M Canada Scholarships [I0564]**
Provided by 3M Canada. Apply to Student Financial Services by October 7 with a completed Financial Need Assessment Application.

**Donor(s):** 3M Canada Company

**Qualification(s):** Students entering Year 4 (ie. having completed a minimum of 15.0 credits) with demonstrated financial need and high academic achievement.

**Amount:** 2 awards of $1,000

**CPES Dean's Scholarship - ACCESS [I4527]**
Established by a number of industrial, commercial and public sector corporations, with the assistance of the Ontario government’s OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. This award may be held once only. ACCESS AWARD

**Donor(s):** Established by a number of industrial, commercial and public sector corporations

**Qualification(s):** Students with demonstrated financial need registered in any major program in C.P.E.S. in, or beyond, second year. A minimum 80% cumulative average is required. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** 1 award of $750
### IX. Scholarships and Other Awards, Bachelor of Science in Technology

<table>
<thead>
<tr>
<th>Scholarship/Award Title</th>
<th>Amount</th>
<th>Qualification(s)</th>
<th>Donor(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MacNaughton ACCESS Scholarship in Physics [14523]</strong></td>
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<tr>
<td>Provided by Earl B. MacNaughton, former head of the Department of Physics and founding Dean of the College of Physical Science and, faculty, staff and alumni of the Department of Physics, with the assistance of the Ontario government's OSOTF program.</td>
<td></td>
<td>Students with demonstrated financial need who are in second year or beyond of a major physics program with a minimum cumulative average of 70% in the required physics courses of that program. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).</td>
<td>Earl B. MacNaughton and faculty, staff and alumni of the Department of Physics</td>
</tr>
<tr>
<td><strong>Class of '72: 25th Reunion Bursaries [13512]</strong></td>
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<tr>
<td>Established by the Class of '72: 25th Reunion Fund with the assistance of the Ontario government's OSOTF program to support students who wish to study full-time. Apply to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD</td>
<td></td>
<td>Full-time students with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).</td>
<td>Class of '72: 25th Reunion Fund</td>
</tr>
<tr>
<td><strong>Elizabeth Burton Bursaries [13503]</strong></td>
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<tr>
<td>Mrs. Elizabeth Burton, with the assistance of the Ontario government's OSOTF program, provides bursaries to students with demonstrated financial need. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD. A number of awards totalling $2,900.</td>
<td></td>
<td>Students in second, third or fourth year with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).</td>
<td>Mrs. Elizabeth Burton</td>
</tr>
<tr>
<td><strong>Graham Family Incentive Scholarship [14506]</strong></td>
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</tr>
<tr>
<td>Provided by Harvey Graham (OAC '39) with the assistance of the Ontario government's OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD</td>
<td></td>
<td></td>
<td>Harvey Graham OAC '39</td>
</tr>
<tr>
<td><strong>Gryphon Investment Council Bursaries [13513]</strong></td>
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<tr>
<td>Established by Gryphon Investment Counsel, with the assistance of the Ontario government's OSOTF program. Awarded in the Winter semester. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD</td>
<td></td>
<td>Full-time students with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).</td>
<td>Gryphon Investment Council Inc.</td>
</tr>
<tr>
<td><strong>Brinson Partners Inc. Bursaries [13526]</strong></td>
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<tr>
<td>Brinson Partners Inc., with the assistance of the Ontario government's OSOTF program, has established these bursaries. Apply with a completed need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD</td>
<td></td>
<td>Students with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).</td>
<td>Brinson Partners Inc.</td>
</tr>
<tr>
<td><strong>Ryerson Access Bursary [14530]</strong></td>
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<tr>
<td>Established by Ryerson Access, with the assistance of the Ontario government's OSOTF program.</td>
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</tbody>
</table>
International Student Bursaries [I3049]

These bursaries have been established and approved by undergraduate students through an undergraduate student referendum to assist undergraduate and University of Guelph campus diploma students in financial need. Apply to Student Financial Services with a completed Need Assessment Form by October 7. Typically, awarded in the Winter semester.

Donor(s): Student Health and Dental Plan Reserve

Qualification(s): Any undergraduate student registered at the University of Guelph who are covered under the University of Guelph mandatory Student Health Plan. The student must require treatment for a condition not currently or completely covered by the Student Health Plan.

Amount: Several varies to a maximum $1,500

International Emergency Medical Aid Assistance [I3059]

This program is designed to provide financial aid to students who require medical treatment that is not covered by University Health Insurance Plan (UHIP) or the Student Dental/Medical insurance plans. Students should apply to Student Financial Services.

Donor(s): Estate of Howard and Myrtle Rogers

Qualification(s): Students who require medical treatment that is not covered by UHIP or the Student Dental/Medical insurance plans. Students should apply to Student Financial Services by October 7. Awarded in the Winter semester.

Amount: Several awards of varying amounts up to $1,000

Robert Auger Humanitarian Bursary [I3058]

This award, of up to $500, has been established through the generosity of staff in the Office of Registrarial Services, family and friends of Robert Auger, a former Associate Registrar at the University of Guelph. It is intended as an emergency fund to assist students who unexpectedly find themselves in difficult financial circumstances, to provide grocery, and textbook vouchers.

Donor(s): Office of Registrarial Services

Qualification(s): Students who require assistance through this fund should apply in confidence to the Assistant Registrar, Financial Aid, Student Financial Services.

Amount: Several awards of $500

Ontario Co-operatives R.P. Forshaw Bursary [I3013]

The Co-operatives, Credit Unions, friends and associates of Prof. R. P. Forshaw have established this bursary. Apply to Student Financial Services with a completed Need Assessment Form by October 7. Awarded in the Winter semester.

Donor(s): The Co-operatives, Credit Unions, friends and associates of Prof. R.P. Forshaw

Qualification(s): Undergraduate students who have financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

Amount: 1 award of $400

Robert Auger Humanitarian Bursary [I3058]

This award, of up to $500, has been established through the generosity of staff in the Office of Registrarial Services, family and friends of Robert Auger, a former Associate Registrar at the University of Guelph. It is intended as an emergency fund to assist students who unexpectedly find themselves in difficult financial circumstances, to provide.

Donor(s): Office of Registrarial Services

Qualification(s): Students who require assistance through this fund should apply in confidence to the Assistant Registrar, Financial Aid, Student Financial Services.

Amount: Several awards of $500

Scotiabank Bursaries [I3532]

Established by Scotiabank, with the assistance of the Ontario government's OSOTF program, to assist students with financial need to continue their studies as full-time students. Distributed in the Winter semester. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester.

Donor(s): Scotiabank

Qualification(s): Full-time students with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

Amount: 2 awards of $1,500

University of Guelph Access Bursaries [I3522]

Provided by alumni and friends of the University, with the assistance of the Ontario government's OSOTF program, to support undergraduate, graduate or OAC (Guelph) diploma students who wish to study full-time but who need financial support to do so. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD. Variable amounts from $500 to $2,000.

Donor(s): Alumni and Friend of the University of Guelph

Qualification(s): Full-time students with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

Amount: Several awards of $500, Several awards of $2,000
University of Guelph Alumni Association Access Bursaries [13523]

Established by the University of Guelph Alumni Association, with the assistance of the Ontario government’s OSOTF program, to support students who wish to study full-time but who need financial support to do so. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

Donor(s): University of Guelph Alumni Association
Qualification(s): Full-time in-course students with demonstrated financial need.

Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

Amount: 2 awards of $1,000

University of Guelph Child Care Bursaries [13053]

In order to provide accessible child care to students with (a) child(ren), the University of Guelph offers bursaries to students who have demonstrated financial need. Apply to Student Financial Services, with a completed Need Assessment Form by October 7. Awarded in the Winter semester. A number of awards of between $500 and $2,000.

Donor(s): University of Guelph
Qualification(s): Students, supporting (a) child(ren) who demonstrate greatest financial need, to offset the costs of child care. To be eligible, undergraduate students must be full-time (as defined by OSAP regulations) and Canadian citizens or permanent residents with demonstrated financial need.

Amount: Several awards of $500, Several awards of $2,000

University of Guelph International Bursary [13048]

The University of Guelph provides support to International undergraduate students that are faced with unexpected, or unforeseen financial shortfalls while registered on campus. Students should apply to Benny Quay, in the Centre of International Programs office by completing an International Student Financial Need Assessment Form. These bursaries are awarded on an on-going basis.

Donor(s): University of Guelph
Qualification(s): Any International student registered in a degree program at the University of Guelph with a minimum registration of 1.50 course credits.

Amount: Several varies

University of Guelph Undergraduate In-Course Bursaries (MET-TR-UG) [13037]

The University of Guelph offers in-course bursaries to students who have demonstrated financial need. Apply to Student Financial Services, with a completed Need Assessment Form by October 7. Awarded in the Winter semester.

Donor(s): University of Guelph
Qualification(s): Ontario students registered for full-time studies (as defined by OSAP) in a degree program with demonstrated financial need and a minimum of 2.0 course credits completed.

Amount: Several awards ranging in value from $100 to $3,000

University of Guelph Undergraduate In-Course Bursaries (NON OSAP TR) [13047]

The University of Guelph offers in-course bursaries to students who have demonstrated financial need. Apply to Student Financial Services, with a completed Need Assessment Form by October 7. Awarded in the Winter semester.

Donor(s): University of Guelph
Qualification(s): Undergraduate students registered for full-time studies (as defined by OSAP) in a degree program with demonstrated financial need and a minimum of 2.0 course credits completed.

Amount: Several awards to a maximum of $800

University Police Bursaries [13019]

The University Police have made available a number of bursaries. Apply to Student Financial Services with a completed Need Assessment Form by October 7.

Donor(s): The University Police
Qualification(s): Full-time undergraduate and graduate students who have financial need.

Amount: Several varies

University Student Assistance Program [13057]

These bursaries have been established and approved by the University of Guelph to assist undergraduate and University of Guelph campus diploma students in financial need. Apply to Student Financial Services with a completed Need Assessment Form by October 7. Typically, awarded in the Winter semester.

Donor(s): University of Guelph
Qualification(s): Full-time undergraduate students registered in any degree program with demonstrated financial need. Preference will be given to students who are not eligible for provincial and/or federal assistance programs such as Ontario Student Assistance Program (OSAP) and/or Canada Student Loan Program (CSLP).

Amount: Several awards of varying amount to a maximum of $1,000

In-course Travel Grants

Arthur D. Latornell Undergraduate Travel Grants [T0058]

An endowment fund established in memory of Arthur D. Latornell, OAC ’50, who had a life-long professional career in resource management and conservation and a special interest in helping young people. The funds are given to provide twenty-five travel grants. These travel grants are offered to assist students in attending conferences, courses, co-op student exchanges or study abroad programs in these areas. Students may receive this grant only once. Apply to Student Financial Services. Deadline dates are June 1 for Fall travel, October 1 for Winter travel, and February 1 for Summer travel. Up to 80% of estimated travel costs to a maximum of $1,000.

Donor(s): The Estate of Arthur D. Latornell
Qualification(s): Students in semester 3 and above. Students must have at least a 70% average and a primary area of interest related to natural resources management, environmental science, conservation, soil science and/or rural development. Students will be asked to submit a one-page review of their travel experience, including the role the travel grant played, to the University after completion of the travel.

Amount: several up to a maximum of $1000

Canadian Friends of the Hebrew University in Jerusalem Travel Bursary [T4532]

The Canadian Friends of the Hebrew University of Jerusalem, with the assistance of the Ontario government’s OSOTF program, have established these travel scholarships to assist students study at the Hebrew University of Jerusalem. Apply by letter with a completed Need Assessment Form to Student Financial Services by May 1. ACCESS AWARD. Up to three awards totalling $7500.

Donor(s): Canadian Friends of the Hebrew University in Jerusalem
Qualification(s): Undergraduate degree students in either the second or third year of study; Masters students in the first year of study, and Doctoral students in the first three years of study are eligible to be considered. Applicants must provide documentation that they have approval from the Hebrew University of Jerusalem (i) to take courses and (ii) for the period of the visit. Students must also arrange appropriate University of Guelph approvals for a “Letter of Permission” prior to applying. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

Amount: 3 Awards with varying amounts

Physics Travel Scholarship [T0400]

This award is given annually to assist students with travel and/or housing costs associated with attending a seminar or more of academic study or co-operative work experience at a recognized university outside Canada. Depending on availability of funds, more than one recipient may be selected for this award. Applications must be accompanied by a one-page description of the planned travel, including budget, to the Chair of the Department of Physics at least two months prior to departure.

Donor(s): Department of Physics
Qualification(s): Student who has completed at least semester 4 of one of the majors in the Physics program with a cumulative average of 80% or greater, and who has obtained a Letter of Permission to attend the University abroad.

Amount: 1 award of $500
### Richard and Sophia Hungerford Undergraduate Travel Scholarships [T4508]

The estate of Richard and Sophia Hungerford, with the assistance of the Ontario government's OSOTF program, has established an endowment to provide travel scholarships to undergraduate students with demonstrated financial need who wish to study in developing countries, or attend conferences on development. Apply to Student Financial Services with a description of the intended travel, an estimate of the travel costs and a completed Need Assessment Form at least one month prior to departure. Deadline dates are June 1 for Fall travel, October 1 for Winter travel, and February 1 for Summer travel.

**Donor(s):** The Estate of Richard Hungerford  
**Qualification(s):** Registered undergraduate students with demonstrated financial need who have at least a 70% cumulative average in the last 2 semesters of full-time equivalent study are eligible. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).  
**Amount:** Several awards of varying amounts to a maximum of $1,000

### University of Guelph Travel Scholarships [T0421]

The University of Guelph, through the sale of Guelph London House, has established an endowment to provide travel scholarships to undergraduate and graduate students who wish to study outside of Canada but need financial support to do so. A total of $35,000 is available in the fund. Apply to Student Financial Services with a completed Travel Grant Application and Financial Need Assessment Form by October 1 for Winter travel, February 1 for Spring travel and June 1 for Fall travel.

**Donor(s):** University of Guelph  
**Qualification(s):** Registered undergraduate and graduate students that have completed 5.0 credits with demonstrated financial need who have a minimum 70% cumulative average in the last two semesters of full-time equivalent study are eligible to apply. The value of the award will depend on the assessed financial need. The scholarship can cover additional costs of travelling outside of Canada including: airfare, administrative costs, and differential costs of accommodation.  
**Amount:** Several up to $1,000
Doctor of Veterinary Medicine

Please refer to the General Statement on Awards for:

- Award Eligibility
- ACCESS Awards Eligibility
- Ontario Student Opportunity Trust Fund (OSOTF) Program
- How Awards are Paid

The University reserves the right to amend awards subject to the availability of funds.

### Entrance Scholarships

#### Elaine Harris Memorial Scholarship [E2108]

Family and friends of Elaine Harris, who in her short lifetime demonstrated exemplary care and love for all animals, have established this scholarship. Application not required.

**Donor(s):** Shirley and Phil Harris

**Qualification(s):** Student entering Phase 1 of the D.V.M. program. The recipient will be selected on the basis of academic performance in the required courses for the D.V.M. application. Preference will be given to the student who has graduated from a program in Animal Health and/or Veterinary Technology.

**Amount:** 1 award of $500

#### Grey County Cattlemen’s Association Entrance Award [E2073]

The Grey County Cattlemen’s Association has donated an entrance scholarship to a student from Grey County entering Phase 1 of the D.V.M. program. Application not required.

**Donor(s):** The Grey County Cattlemen’s Association

**Qualification(s):** Student from Grey County entering Phase 1 of the D.V.M. program with the highest average.

**Amount:** 1 award of $100

#### Eleanor McEwen Bursaries [E2153]

Established by the Jean Rich Foundation, this award is paid out over four years at $5,000 per year. Not tenable with other awards of $5,000 per year or greater. Apply with a completed Need Assessment Form to Student Financial Services by Oct. 7. One award of $20,000 (paid at $5,000 per year for four years). This award is offered once every 4 years to an entering DVM student. Apply to Student Financial Services with a completed Need Assessment Application by October 7.

**Donor(s):** The Jean Rich Foundation

**Qualification(s):** Students entering the Phase 1 of the D.V.M. program with the greatest demonstrated need of financial assistance. Satisfactory academic progress and continued demonstration of financial need is required to receive each annual payment of this award.

**Amount:** 1 award of $20,000

#### Peter Rich Bursaries [E2123]

Established by the Jean Rich Foundation, this award is paid out over four years at $5,000 per year. Not tenable with other awards of $5,000 per year or greater. Apply with a completed Need Assessment Form to Student Financial Services by Oct. 7. One award of $20,000 (paid at $5,000 per year for four years).

**Donor(s):** The Jean Rich Foundation

**Qualification(s):** Students entering the Phase 1 of the D.V.M. program with the greatest demonstrated need of financial assistance. Satisfactory academic progress and continued demonstration of financial need is required to receive each annual payment of this award.

**Amount:** 1 award of $20,000

#### Jennifer Margaret Francis Memorial Award [E2000]

This award is normally made once every four years and may be held by the student throughout the D.V.M. program providing both financial need continues and academic performance is maintained. The award is payable over 4 years to a student from the Region of Ottawa-Carleton entering Phase 1 of the D.V.M. program. Apply to the Student Financial Services by October 7 with a completed Need Assessment Form. One award of $6,000 (paid $1,500 per year for a maximum of four years). This award is offered once every 4 years to an entering DVM student. Apply to Student Financial Services with a completed Need Assessment Application by October 7.

**Donor(s):** Mrs. Jean Francis

**Qualification(s):** Student from the Region Ottawa-Carleton entering Phase 1 of the D.V.M. program, based on financial need and academic performance.

**Amount:** 1 award of $6,000

#### In-course Scholarships

#### AAEP/Frank J. Milne Memorial Award [C2103]

The American Association of Equine Practitioners (AAEP) has established this award in memory of Dr. Frank J. Milne, an inspiring teacher and respected faculty member at the Ontario Veterinary College from 1953 to 1984. Application not required.

**Donor(s):** The American Association of Equine Practitioners

**Qualification(s):** Student who has successfully completed Phase 4 of the D.V.M. program and demonstrated skills in large animal surgery in the course VETM*4840 (Large Animal Clinics).

**Amount:** 1 award of $500

#### American Animal Hospital Association Prize [C2003]

Awarded by the American Animal Hospital Association. Application not required. Awarded an engraved plaque, a commendation in the AAHA publication, a five year membership in AAHA and a 5 year AHAA meeting membership.

**Donor(s):** The American Animal Hospital Association

**Qualification(s):** Student successfully completing Phase 4 of the D.V.M. program and membership in AAHA and a 5 year AHAA meeting membership. Awarded an engraved plaque, a commendation in the AAHA publication, a five year membership in AAHA and a 5 year AHAA meeting membership.

#### Andrea Nott Memorial Scholarship [I2158]

This award was established in memory of Andrea Nott, an aspiring veterinarian whose life was cut short by an automobile accident in the summer of 2002. Her compassion and caring marked every activity she undertook. The decision will be based on feedback from the laboratory facilitator, an evaluation by the standardized client, and the student’s grade on his/her own assessment of, and reflection on, the videotaped interview. No application required.

**Donor(s):** Callbeck Animal Hospital

**Qualification(s):** DVM student who have successfully completed Phase 1 who best demonstrates the elements of effective interpersonal communication through active listening, demonstration of empathy and compassion to the client, and an understanding of the importance of the client’s feelings, emotions and values in the clinical interview.

**Amount:** 1 award of $750

#### Andrew Leslie MacNab Prize [C2031]

Presented by the O.V.C. Alumni Association. Application not required.

**Donor(s):** American Board of Veterinary Public Health

**Qualification(s):** Student who has successfully completed Phase 4 of the D.V.M. program with the highest mark in veterinary public health in VETM*4850 (Health Management).

**Amount:** 1 award of $200
Andrew Smith Memorial Medal [C2060]
Presented by O.V.C. in memory of the late Andrew Smith, founder of the Ontario Veterinary College. Application not required.

Donor(s): Friends and family of Andrew Smith
Qualification(s): D.V.M. student who has successfully completed Phase 4 with the highest program average at the end of Phase 4. The student's entire college career will be considered.

Amount: 1 Medal

Betty Goldhart Scholarships in Medical Genetics [I2024]
1 award of $100, 1 award of $75

Qualification(s): Students who have completed Phase 1 of the D.V.M. program and received the first and second highest marks in VETM*3390 (Veterinary Medical Genetics).

Amount: 1 award of $100, 1 award of $75

 Auxiliary to Ontario Veterinarians Award [I2076]
Endowed by the Auxiliary to Ontario Veterinarians, supporting the profession from 1946 to 1990. Application not required.

Donor(s): The Auxiliary to Ontario Veterinarians
Qualification(s): Student who has completed Phase 2 of the D.V.M. program and who has demonstrated the greatest improvement in academic performance between Phases 1 and 2 of the D.V.M. program

Amount: 1 Award amount varies

Aventix Animal Health Prize in Dentistry [C2149]

Donor(s): Aventix Animal Health
Qualification(s): Student who has successfully completed Phase 4 of the D.V.M. program who has the highest mark in the Dentistry rotation of the course VETM*4830 (Small Animal Clinics).

Amount: 1 award of $250

Aventix Animal Health Prize in Ophthalmology [C2138]

Donor(s): Aventix Animal Health
Qualification(s): Student who has successfully completed Phase 4 of the D.V.M. program who has the highest mark in the Ophthalmology rotation of the course VETM*4830 (Small Animal Clinics).

Amount: 1 award of $250

BarB Crowe & Don Kuzik Memorial Scholarship [I2155]
Established by BarB Crowe as a memorial to her beloved husband, Don Kuzik, and their dogs. In recognition of Don's ethic of friendship, encouragement, teamwork and a lifelong love of animals. Application not required.

Donor(s): BarB Crowe
Qualification(s): Student who has successfully completed Phase 4 of the D.V.M. program with the highest mark in the Ophthalmology rotation of the course VETM*4830 (Small Animal Clinics).

Amount: 1 award of $250

Bayer Animal Health Prize [I2109]
Bayer Inc. provides this annual award. Application not required.

Donor(s): Bayer Inc.
Qualification(s): Student who has completed Phase 3 of the D.V.M. program with a demonstrated exceptional commitment to teamwork and willingness to support classmates and colleagues, as selected by a vote of the Phase 4 class.

Amount: 1 award of $1,000

Beloved Friends Award [C2007]
Established by Rose McBride. Application not required.

Donor(s): Mrs. Rose McBride
Qualification(s): Student who has completed Phase 4 of the D.V.M. program and who has demonstrated kindness and care in the treatment of animals in the medicine and surgery clinics.

Amount: 1 award of $500

Bill Taylor Memorial Scholarship [I0280]
Applications to include a supporting letter from a coach or intramural supervisor. Apply to Student Financial Services by April 1.

Donor(s): AMF Canada Ltd.
Qualification(s): Full-time student that has completed a minimum of 7.5 credits, but no more than 17.5 credits in the Winter term who has a cumulative 80% average or who is in the top 10% of his/her program. The recipient must have demonstrated responsibility and leadership qualities through participation in intramural or intercollegiate athletics.

Amount: 1 award of $900

CALAM/ACMAL Scholarship [C2078]
Established by the Canadian Association for Laboratory Animal Medicine/L’Association Canadienne de la Medecine des Animaux de Laboratoire (CALAM/ACMAL). The winning report will be selected on the basis of scientific content, relevance to the field of laboratory animal science and quality of the manuscript. The case report may be written in either English or French, and must be in a format suitable for publication in the Canadian Veterinary Journal. Submit Reports to the OVC Assistant Dean, Student Affairs, by February 15.

Donor(s): Canadian Association for Laboratory Animal Medicine/L’Association Canadienne de la Medecine des Animaux de Laboratoire (CALAM/ACMAL)
Qualification(s): Full-time students in the D.V.M. program who have completed Phase 4

Amount: 1 plaque, 1 award of $250

Canadian Parrot Symposium’s Prize in Avian Studies [C2130]
Endowed by the Canadian Parrot Symposium for an undergraduate student in the D.V.M. program or a graduate student enrolled in a department at the Ontario Veterinary College. Application not required.

Donor(s): The Canadian Parrot Symposium
Qualification(s): Undergraduate student in the D.V.M. program or graduate student registered in the Faculty of Graduate Studies enrolled in a department at the Ontario Veterinary College who are pursuing studies dealing with companion birds, their welfare and well-being, and the human/companion bird relationship. The recipient will be selected on the basis of academic achievement and dedication to the discipline.

Amount: 1 award of $250

Canadian Veterinary Medical Association Prize [C2014]
Established by the Canadian Veterinary Medical Association (CVMA). Application not required. One award of a plaque.

Donor(s): Canadian Veterinary Medical Association
Qualification(s): Student who has successfully completed Phase 4 of the D.V.M. program. The recipient will be selected by the final year class on the basis of leadership, scholarship, and sportsmanship.

Amount: 1 Plaque

Canadian Veterinary Medical Association Prize [I2015]
Established by the Canadian Veterinary Medical Association (CVMA). Application not required.

Donor(s): Canadian Veterinary Medical Association
Qualification(s): Student who has completed Phase 3 of the D.V.M. program. The recipient will be selected by members of the third year class on the basis of leadership and achievement in student affairs.

Amount: 1 award of $800, and a plaque

Charles Duncan McGilvray Prize [C2034]
The Class of O.V.C.’41 has donated this award to honour the memory of Dr. C.D. McGilvray, Principal of the Ontario Veterinary College, 1918-45. Application not required. One award of $200 and a framed certificate

Donor(s): OVC Class - 1941 (Dr. D.A. Barnum, OVC)
Qualification(s): Student who has successfully completed Phase 4 of the D.V.M. program who by scholarship, leadership, personality, character, and interest made a worthy contribution to the College as an undergraduate and who is the College’s nominee for the Winegard Medal.

Amount: 1 award of $200

Charles M. Baker Memorial Prize [I2006]

Donor(s): Dr. M. Baker and Mrs. Charles Baker
Qualification(s): Student, with the highest relative class standing in any of the Phases, 1, 2 or 3 of the D.V.M. program. Student must have a cumulative average of 70%. Preference will be given to a student participating in University sports.

Amount: 1 award of $200

2005-2006 University of Guelph Undergraduate Calendar
Last Revision: October 18, 2005
### Deans’ Scholarships [I20323]

Offered by the Board of Governors. Recipients will be selected by each of the College Awards Committees. Winners will be notified in the Fall semester. Application not required.

<table>
<thead>
<tr>
<th>Donor(s):</th>
<th>Board of Governors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Qualification(s):</td>
<td>Students registered in any degree program. The primary academic criteria is placement on the Deans’ Honours List for two consecutive semesters, excluding semesters 7 and 8, in the previous Fall/Winter/Spring sequence.</td>
</tr>
<tr>
<td>Amount:</td>
<td>150 awards of $1,000</td>
</tr>
</tbody>
</table>

### Dorothea Daniell-Jenkins Memorial Scholarship [I2107]

Friends, family and fellow dog fanciers have established a scholarship in memory of Dorothea Daniell-Jenkins, a respected judge and Terrier breeder. Application not required.

<table>
<thead>
<tr>
<th>Donor(s):</th>
<th>Friends and family of Dorothea Daniell-Jenkins</th>
</tr>
</thead>
<tbody>
<tr>
<td>Qualification(s):</td>
<td>Student who has completed Phase 3 of the D.V.M. program and the externship, who is judged to be the most proficient in small animal medicine and surgery, based on academic performance in Phase 3.</td>
</tr>
<tr>
<td>Amount:</td>
<td>1 award of $700</td>
</tr>
</tbody>
</table>

### Dr. A. Noel-Smith Memorial Award [C2090]

Provided by the Oakville Humane Society in honour of Dr. A. Noel-Smith. Application not required.

<table>
<thead>
<tr>
<th>Donor(s):</th>
<th>Oakville Humane Society</th>
</tr>
</thead>
<tbody>
<tr>
<td>Qualification(s):</td>
<td>Student completing Phase 4 of the D.V.M. program with high academic standing, who is a resident of Oakville or the Regional Municipality of Halton, and who has made a contribution to humane activities during the course of studies.</td>
</tr>
<tr>
<td>Amount:</td>
<td>1 award of $500</td>
</tr>
</tbody>
</table>

### Dr. C.K. “Chuck” Roe Memorial Scholarship [I2096]

The Class of O.V.C.’60, together with family, friends and colleagues of Dr. “Chuck” Roe (O.V.C.’50), a respected faculty member of the Ontario Veterinary College and exemplary humanitarian have endowed this memorial scholarship. Application not required.

<table>
<thead>
<tr>
<th>Donor(s):</th>
<th>Mrs Lillian Roe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Qualification(s):</td>
<td>Student who has completed Phase 3 of the D.V.M. program with the highest grade in the swine health management component of the course VETM*4530 (Advanced Health Management). The recipient's participation in College and other extracurricular activities will also be considered.</td>
</tr>
<tr>
<td>Amount:</td>
<td>1 award of $500</td>
</tr>
</tbody>
</table>

### Dr. D.J. McLellan Scholarship [C2035]

Provided by the estate of Dr. D.J. McLellan (O.V.C.’77). Application not required.

<table>
<thead>
<tr>
<th>Donor(s):</th>
<th>Estate of Dr. and Mrs. David John McLellan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Qualification(s):</td>
<td>Student who has successfully completed Phase 4 of the D.V.M. program with the highest standing in the courses in which equine contagious diseases are taught: VETM<em>4450 (Equine Medicine &amp; Surgery), VETM</em>4840 (Large Animal Clinics) and VETM*4850 (Health Management).</td>
</tr>
<tr>
<td>Amount:</td>
<td>1 award of $2,000</td>
</tr>
</tbody>
</table>

### Dr. George Rankin Memorial Equine Scholarship [I2053]

Established to honour the memory of Dr. George Rankin. Apply to the O.V.C. Awards Committee with a résumé and supporting letters documenting your interest and aptitude in equine medicine and surgery by January 15.

<table>
<thead>
<tr>
<th>Donor(s):</th>
<th>Mrs. George Rankin</th>
</tr>
</thead>
<tbody>
<tr>
<td>Qualification(s):</td>
<td>Student in the D.V.M. program who is entering Phase 4 (final year), and who has a minimum B average.</td>
</tr>
<tr>
<td>Amount:</td>
<td>1 award of $1,000</td>
</tr>
</tbody>
</table>

### Dr. Ian B. Johnstone Veterinary Physiology Prize [I2160]

Family and friends of Dr. Ian B. Johnstone (O.V.C. 56) have established this memorial award to recognize his valued contribution to the teaching of physiology in the DVM program at the Ontario Veterinary College. Application not required.

<table>
<thead>
<tr>
<th>Donor(s):</th>
<th>Friends and family of Ian B. Johnstone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Qualification(s):</td>
<td>Full-time DVM student who achieves the highest grade in the course VETM*3080 (Veterinary Physiology).</td>
</tr>
<tr>
<td>Amount:</td>
<td>1 award of $500</td>
</tr>
</tbody>
</table>

### Dr. J. Grant Savage (OVC ’48) Memorial Prize [I2140]

This award has been established by family and friends of Dr. Savage who dedicated his life to the health and welfare of farm animals, thus helping to maintain the fabric of rural life in Maine. Apply by letter to the O.V.C. Assistant Dean for Student Affairs by January 31.

<table>
<thead>
<tr>
<th>Donor(s):</th>
<th>Family and friends of Dr. J. Grant Savage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Qualification(s):</td>
<td>Full-time student completing Phase 3 of the D.V.M. program. Selection will be based on high academic standing (at least A-) in the course VETM*4530 (Advanced Health Management). Preference will be given to students who have shown an interest in ruminant medicine, surgery and health management through participation in related activities.</td>
</tr>
<tr>
<td>Amount:</td>
<td>1 award of $800</td>
</tr>
</tbody>
</table>

### Dr. Jack Lange Memorial Scholarship [C2122]

Family, friends and colleagues of Dr. Jack Lange (O.V.C.’71) have established this memorial scholarship to recognize his contributions to the equine industry, the mutual respect he shared with his clients, and his zest for life. Application not required.

<table>
<thead>
<tr>
<th>Donor(s):</th>
<th>Family, friends and colleagues of Dr. Jack Lange</th>
</tr>
</thead>
<tbody>
<tr>
<td>Qualification(s):</td>
<td>Student who has successfully completed Phase 4 of the D.V.M. program who has submitted the best case report dealing with an equine clinical condition in the course VETM*4900 (Veterinary Externship).</td>
</tr>
<tr>
<td>Amount:</td>
<td>1 award of $500</td>
</tr>
</tbody>
</table>

### Dr. Jean Runnery Memorial Scholarship [I2098]

Donated by the Hamilton Dog Obedience Club Incorporated in memory of Dr. Jean Runnery (O.V.C.’39). Application not required. One award of $600 (first place) and one of $400 (second place).

<table>
<thead>
<tr>
<th>Donor(s):</th>
<th>The Hamilton Dog Obedience Club Inc.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Qualification(s):</td>
<td>Students who have completed Phase 2 of the D.V.M. program, and who rank first and second in the small animal portions of the courses VETM<em>3850 (Introduction to Medicine) and VETM</em>3860 (Clinical Medicine 1).</td>
</tr>
<tr>
<td>Amount:</td>
<td>1 award of $600, 1 award of $400</td>
</tr>
</tbody>
</table>

### Dr. John Lindner Award [I2122]

Donated by Kingsdale Animal Hospital and the family of Dr. John Lindner (O.V.C.’73) an esteemed companion animal practitioner and humanitarian. Application not required.

<table>
<thead>
<tr>
<th>Donor(s):</th>
<th>Kingsdale Animal Hospital and the family of John Lindner</th>
</tr>
</thead>
<tbody>
<tr>
<td>Qualification(s):</td>
<td>Student who has completed Phase 1 of the D.V.M. program. Recipient will be selected on the basis of academic performance in the course VETM*3070 Veterinary Anatomy.</td>
</tr>
<tr>
<td>Amount:</td>
<td>1 award of $500</td>
</tr>
</tbody>
</table>

### Dr. John Reeve-Newson Emergency Medicine Prize [C2150]

Presented by the Veterinary Emergency Clinic of Toronto in recognition of the exceptional contributions of Dr. John Reeve-Newson. Dr. Reeve-Newson served as chair of the clinic board for over 25 years, and was instrumental in the development and growth of the facility. Application not required.

<table>
<thead>
<tr>
<th>Donor(s):</th>
<th>The Veterinary Emergency Clinic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Qualification(s):</td>
<td>Student completing Phase 4 of D.V.M. program, who has the highest mark in the Emergency &amp; Critical Care Medicine rotation of the course Small Animal Clinics (VETM*4830).</td>
</tr>
<tr>
<td>Amount:</td>
<td>1 award of $1,000</td>
</tr>
</tbody>
</table>

### Dr. Jonathan Bloom (OVC ’93) Ambassatorial Scholarship [C2114]

Jonathan Bloom (O.V.C.’93) and his family have endowed this award. Application not required.

<table>
<thead>
<tr>
<th>Donor(s):</th>
<th>Dr. and Mrs. Howard Bloom</th>
</tr>
</thead>
<tbody>
<tr>
<td>Qualification(s):</td>
<td>Student who has successfully completed Phase 4 of the D.V.M. program and completed an approved elective experience outside the institution during their final year. The recipient will be selected on the basis of the evaluation of performance by the elective host and the manner in which the College and the Profession were represented. Preference will be given to a student who has demonstrated initiative and motivation in a non-traditional elective experience in veterinary medicine.</td>
</tr>
<tr>
<td>Amount:</td>
<td>1 award of $400</td>
</tr>
</tbody>
</table>
IX. Scholarships and Other Awards, Doctor of Veterinary Medicine

Dr. Neal Mendelson Memorial Award [C2089]

Donated by the family of Dr. Neal G. Mendelson (O.V.C.'47), a renowned equine practitioner. Application not required.

Donor(s): Mrs. Barbara Mendelson
Qualification(s): Student who has successfully completed Phase 4 of the D.V.M. program, and is the most proficient in equine studies based on grades in courses VETM*4450 (Equine Medicine and Surgery) and VETM*4460 (Large Animal Clinic) rotations.

Amount: 1 award of $200

Dr. Roy S. Moore Memorial Award [I0046]

Family, friends, professional colleagues and associates who care for laboratory animals have donated this award in memory of Dr. Roy S. Moore (O.V.C. ’54), a veterinarian who dedicated his career to the promotion of humane laboratory animal care. Nominations and curriculum vitae of the nominees must be sent to the Assistant Dean for Student Affairs, O.V.C., by January 15.

Donor(s): Mrs. Shirley Moore
Qualification(s): The recipient will be selected from undergraduate students nominated by the supervisors of all animal care facilities under the purview of the University’s Animal Care Committee. The criteria for nomination and awarding the prize are outstanding aptitude for, interest in, and humane care of, research and teaching animals while working in the facility for the past academic year.

Amount: 1 award of $350

Dr. Samuel Downing Stirk Memorial Award [C2066]

Donated by the family of Dr. Samuel Downing Stirk. Application not required. One award of $250 and a framed picture.

Donor(s): Dr. Gerald D. Stirk
Qualification(s): Student who has successfully completed Phase 4 of the D.V.M. program and judged by the Farm Service Clinicians to have the best diagnostic ability of disease in food animals in the course VETM*4850 (Health Management).

Amount: 1 award of $250

Dr. W.J. Stinson Scholarship [C2065]

Provided by the Dr. W.J. Stinson Scholarship Fund Committee. Application not required.

Donor(s): Dr. W.J. Stinson Scholarship Fund Committee
Qualification(s): Student who has successfully completed Phase 4 of the D.V.M. program and who is the most proficient in bovine reproduction and obstetrics.

Amount: 1 award of $200

Dr. Wendy Parker Award in Clinical Dermatology, sponsored by Aventix Animal Health [C2158]

Provided by Aventix Animal Health and recognizing the support of retired professor, Dr. Wendy Parker. Application not required.

Donor(s): Aventix Animal Health
Qualification(s): Student who has successfully completed Phase 4 of the D.V.M. program who has the highest mark in the Dermatology rotation of the course VETM*4830 (Small Animal Clinics).

Amount: 1 award of $250

Elsevier Prize [I2058]

Provided by Elsevier Science Canada. Application not required.

Donor(s): Elsevier Science Canada
Qualification(s): Students completing Phase 3 of the D.V.M. program with the highest average in VETM*4460 (Food Animal Medicine and Surgery) and VETM*4470 (Medicine and Surgery of the Dog and Cat).

Amount: 1 Book prize

F.W. Schofield Prize in Pathology [C2059]

Awarded by the Ontario Veterinary College, Department of Pathobiology to honour the memory of Dr. F. W. Schofield (O.V.C.'10), an honourable professional who attended Korea in 1916 to teach bacteriology and hygiene at a mission school, did research through his entire career, and to whom we owe the development and present extensive use of the anticoagulant coumarin in all phases of medicine. Application not required.

Donor(s): Dr. F.W. Schofield
Qualification(s): Student completing Phase 4 of the D.V.M. program with the highest ranking in Pathology.

Amount: 1 award of $500

George A. Gray OAC ’51 Varsity Scholarships [I0487]

Established in memory of George Gray, OAC ’51, a Guelph football lineman and a great player of the game. Apply to Student Financial Services by October 7 providing a covering letter describing on- and off-campus academic and extra-curricular activities and a completed Need Assessment Form. Awarded at the annual Athletics Banquet.

Donor(s): Mrs. George A. Gray
Qualification(s): Undergraduate degree or diploma students who are members of varsity teams and in the second, third, fourth or fifth year of full-time study with a minimum 70% average in all courses completed in the previous year of study and have demonstrated leadership. Selection will include equally weighted consideration of academic performance, leadership and financial need. Preference will be given to members of the varsity football team. Examples of leadership may include academic tutoring, mentoring team mates, assisting in the organization and promotion of varsity and/or intramural athletics, participation on university committees, such as in residences, on Senate or in Colleges, and similar off-campus activities. Students may receive the award up to four times.

Amount: 2 awards of $1,250

Governor General’s Medal [C0044]

Established by the Office of the Governor General of Canada. Application not required.

Donor(s): The Chancellery
Qualification(s): Restricted to those undergraduate students in any degree program who are graduating in June, or who have graduated in the previous two convocations, with the highest cumulative average.

Amount: 1 Silver medal

Guelph Varsity Athletic Accessibility Scholarship [I0518]

Established by alumni and friends of the University of Guelph. Apply to Student Financial Services by October 7 providing a covering letter describing on- and off-campus academic and extra-curricular activities and a completed Need Assessment Form. Awarded at the annual Athletics Banquet.

Donor(s): Alumni and friends of the University of Guelph
Qualification(s): Undergraduate degree or diploma students, with at least 5.0 credits and less than 20.5 credits, who are members of a varsity athletic team and who have demonstrated financial need, are eligible to apply. Students must have maintained at least a 70% cumulative average in all courses completed in the previous year of study (minimum 3.0 credits). Selection will be based upon equally weighted consideration of academic performance and evidence of leadership qualities. Students may receive the award up to four times.

Amount: 2 awards of $1,250

Holstein Association of Canada Prize [C2026]

Presented by the Holstein Association of Canada. Application not required.

Donor(s): Holstein Association of Canada
Qualification(s): Student who has successfully completed Phase 4 of the D.V.M. program who has the highest standing in bovine medicine based on VETM*3440 (Clinical Medicine II) and VETM*4870 (Clinical Medicine III), VETM*4840 (Large Animal Clinics) and VETM*4850 (Health Management).

Amount: 1 award of $400

J.P.W. Gilman Prize [I2022]

Established by the colleagues and friends of Prof. J.P.W. Gilman, a teacher of Histology at O.V.C. from 1945 to 1975. Application not required.

Donor(s): Friends and colleagues of J.P.W. Gilman
Qualification(s): Student enrolled in Phase 2 of the D.V.M. program with the highest grade in the course VETM*3120 (Veterinary Histology).

Amount: 1 award of $200

James and Marjorie Pinkney Studentship Research Award [I2125]

This award was established by Dr. R. James Pinkney, a distinguished alumnus of O.V.C.'37. Dr. Pinkney was a veterinary practitioner in Cooksville for over forty years and received numerous awards for sportsmanship in agricultural competition and leadership in agriculture. Applications must be submitted by candidates and their supervising faculty members to the Assistant Dean for Student Affairs, O.V.C., by January 22.

Donor(s): Dr. R. James Pinkney
Qualification(s): Student in the D.V.M. program in Phases 1, 2, or 3 who is pursuing, during the summer months, a research project related to the health and welfare of animals. Students taking part in the Phase 3 externship program may receive a portion of the award for the non-externship portion of the summer.

Amount: 1 award of $4,000
IX. Scholarships and Other Awards, Doctor of Veterinary Medicine

Katherine Elizabeth Long DVM Memorial Scholarship [C2088]
This memorial scholarship was established by the family of Kathy Long D.V.M., (O.V.C.’88). Application not required.

Donor(s): Mr. Doug Long
Qualification(s): Student who has successfully completed Phase 4 of the D.V.M. program who strives most consistently to apply the highest standards of veterinary knowledge and skill while showing concern for the animal’s comfort and welfare. The recipient will be selected by a class vote of the final year class.

Amount: 1 award of $1,000

Keelait Memorial Scholarship in Surgery [C2027]
The class of ’66 presents this scholarship in memory of their classmate T.M. Keelait. Application not required.

Donor(s): OVC ’66
Qualification(s): Student who has completed Phase 4 of the D.V.M. program and is recommended by the instructors in the Department of Clinical Studies on the basis of proficiency in surgery, interest and application in lectures and clinics in surgery.

Amount: 1 award of $100

Leonard Connolly Exchange Student Scholarship [I0446]
Established by students, faculty, staff and friends to honour Prof. Leonard Connolly, professor of drama, Chair of the Department of Drama, 1981-88, and Associate Vice-President Academic, 1988-1992. Apply to the Centre for International Programs by April 5, for visiting during the subsequent Fall or Winter semesters.

Donor(s): Students, faculty and friends of Dr. Leonard Connolly
Qualification(s): Full-time visiting exchange undergraduate or graduate student, registered at Guelph for at least one semester, from any country in the South (a list of eligible countries and exchange partner universities is available in the Centre for International Programs). Selection, by the Centre for International Programs, will be based on assessment of (a) a one-page submission describing the significance of the student visiting Guelph to the program of study at the partner exchange university (b) two faculty references of one-page each, and (c) consistent high performance in the course work completed, as documented by a transcript of program grades to date, submitted by the home university.

Amount: 1 award of $1,000

Lake Thomson Memorial Award [I2119]
Donated by Dr. Catherine Thomson-McGhie (O.V.C.’91). Article submission to the O.V.C. Awards Committee by January 31.

Donor(s): Dr. Catherine Thomson-McGhie (O.V.C.’91)
Qualification(s): Student enrolled in the D.V.M. program who has submitted an article suitable for publication dealing with the Human-Companion Animal Bond and its relevance in veterinary practice. The article must be completed according to the Canadian Veterinary Journal format for Brief Communications.

Amount: 1 award of $500

Major James Rattray Proficiency Prizes [I2054]
Awarded by the College in memory of Major James Rattray. Application not required.

Donor(s): James Rattray Estate
Qualification(s): D.V.M. students completing each of Phases 1, 2, and 3 with the second highest grade rankings for the Phase.

Amount: 3 awards of $200

Merial Canada Inc. Award of Merit [C2051]
Donated by Merial Canada Inc. Application not required. One award $200 and a commemorative plaque.

Donor(s): Merial Canada Inc.
Qualification(s): Student who has successfully completed Phase 4 of the D.V.M. program and who is judged to be the most proficient in small animal medicine in the course VETM*4830 (Small Animal Clinics).

Amount: 1 award of $200

Merial Canada Inc. Scholarship [I2052]
Donated by Merial Canada Inc. Application not required. One award $200 and a commemorative plaque.

Donor(s): Merial Canada Inc.
Qualification(s): Student completing Phase 2 of the D.V.M. program who has the highest grade in course VETM*3470 (Anesthesiology).

Amount: 1 award of $200

Molly Carrington (O.V.C. ’78) Memorial Scholarship [C2016]
Established by the Class of O.V.C.’78, the Carrington Family and Friends in memory of Dr. Molly Carrington (O.V.C.’78). Application not required.

Donor(s): Class of O.V.C.’78
Qualification(s): Student who has successfully completed Phase 4 of the D.V.M. program and who has demonstrated proficiency in Small Animal Medicine in the course VETM*4830 (Small Animal Clinics) and also demonstrated high standard of case care and compassion for his or her patients.

Amount: 1 award of $500

Norman W. Simmons Memorial Award [I2124]
Established in memory of Norman W. Simmons. Application not required.

Donor(s): The estate of Norman W. Simmons
Qualification(s): Student who has completed Phase 3 of the D.V.M. program with the highest grade in course VETM*4070 (Diseases of Non-Domestic Animals).

Amount: 1 award of $500

Ontario Association of Swine Practitioners’ Prize [I2147]
Presented by the Ontario Association of Swine Practitioners. Apply by letter, stating swine industry experience to date, and include the required essay, to the Assistant Dean for Student Affairs, OVC, by January 15. Selection will be based on the best essay submitted describing an issue facing the swine industry.

Donor(s): Ontario Association of Swine Practitioners
Qualification(s): Student registered in the first or second year of the D.V.M. program who shows an active interest in pursuing a career in swine health management.

Amount: 1 award of $250

Ontario Pork Producers’ Marketing Board Prize [C2041]
Donated by the Ontario Pork Producers’ Marketing Board. Application not required.

Donor(s): Ontario Pork Producers’ Marketing Board
Qualification(s): Student who has successfully completed Phase 4 of the D.V.M. program and who has demonstrated proficiency in the study of swine diseases, based on performance in the course VETM*4850 (Health Management).

Amount: 1 award of $500

Ontario Veterinarians Association Prize [I2080]
Established by the College of Veterinarians of Ontario. Application not required.

Donor(s): College of Veterinarians of Ontario
Qualification(s): Student who has completed Phase 3 of the D.V.M. program and has been active in college or university affairs.

Amount: 1 award of $750

OSPCA Veterinary Student Prize [I2146]
Established by the Ontario Society for the Prevention of Cruelty to Animals in recognition of its 100th anniversary. Application not required. One award a $500 University of Guelph bookstore gift certificate

Donor(s): The Ontario Society for the Prevention of Cruelty to Animals
Qualification(s): A student who has successfully completed Phase 3 of the D.V.M. program and has been selected by classmates as showing exceptional compassion toward, and interest, in animals. The recipient must be a resident of Ontario as defined by the OSOTF program (see General Statements on Awards).

Amount: 1 award of $500
<table>
<thead>
<tr>
<th>Scholarship Name</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>OTS Delta Club Scholarship [I2039]</td>
<td>Donated by the OTS Delta Club from the Ontario Veterinary College. Application not required.</td>
</tr>
<tr>
<td><strong>Donor(s):</strong> Delta Club of Omega Tau Sigma Fraternity</td>
<td><strong>Qualification(s):</strong> A student who has completed Phase 2 of the D.V.M. program. The recipient will be chosen on the basis of scholastic achievement and contribution to Club affairs.</td>
</tr>
<tr>
<td><strong>Amount:</strong> 1 award of $300</td>
<td></td>
</tr>
<tr>
<td>Ottawa-Carleton 1983 International Ploughing Match (OVC) Scholarships [I2094]</td>
<td>Apply to Student Financial Services by April 1 with a completed Need Assessment Form and a letter outlining extracurricular activities.</td>
</tr>
<tr>
<td><strong>Donor(s):</strong> Ottawa-Carleton International Ploughing Match Committee 1983</td>
<td><strong>Qualification(s):</strong> Student from the Region of Ottawa-Carleton who has completed Phase 1 of the D.V.M. program and who has a cumulative average of 70% (minimum) standing in Phase 1. Participation in extracurricular activities and financial need will be considered.</td>
</tr>
<tr>
<td><strong>Amount:</strong> 1 award of $1,000</td>
<td></td>
</tr>
<tr>
<td>OVC '75 Scholarship in Memory of Aki Sasage [C2092]</td>
<td>Established by classmates and colleagues of Dr. Aki Sasage (O.V.C. ’75), a new Canadian of exceptional character and sensitivity, with a keen interest in clinical veterinary medicine. Application not required.</td>
</tr>
<tr>
<td><strong>Donor(s):</strong> The classmates and colleagues of Aki Sasage, OVC ’75</td>
<td><strong>Qualification(s):</strong> Student who has successfully completed Phase 4 of the veterinary program with the highest standing in course VETM*4900 (Veterinary Externship).</td>
</tr>
<tr>
<td><strong>Amount:</strong> 1 award of $700</td>
<td></td>
</tr>
<tr>
<td>OVC Alumni Association Proficiency Prizes (Convocation) [C2045]</td>
<td>Presented by the O.V.C. Alumni Association. Application not required. One 1st place award of $500, one 2nd place award of $300, and one 3rd place award of $200.</td>
</tr>
<tr>
<td><strong>Donor(s):</strong> OVC Alumni Association</td>
<td><strong>Qualification(s):</strong> Students who have successfully completed Phase 4 of the D.V.M. program, who have the three highest program averages.</td>
</tr>
<tr>
<td><strong>Amount:</strong> 1 award of $500, 1 award of $300, 1 award of $200</td>
<td></td>
</tr>
<tr>
<td>OVC Alumni Association Proficiency Prizes (In-course) [I2048]</td>
<td>Presented by the O.V.C. Alumni Association. Application not required.</td>
</tr>
<tr>
<td><strong>Donor(s):</strong> OVC Alumni Association</td>
<td><strong>Qualification(s):</strong> D.V.M. students successfully completing Phases 1, 2, and 3 with the highest class standing for the Phase.</td>
</tr>
<tr>
<td><strong>Amount:</strong> 3 awards of $500</td>
<td></td>
</tr>
<tr>
<td>OVC Spirit Prize [10469]</td>
<td>Provided by the O.V.C. Alumni Association. Application not required.</td>
</tr>
<tr>
<td><strong>Donor(s):</strong> The Ontario Veterinary College Alumni Association</td>
<td><strong>Qualification(s):</strong> Student in Phase 1 of the D.V.M. program based on contributions to the O.V.C. community and his or her demonstration of leadership, sportsmanship, and the ability to get and keep his or her classmates involved in the O.V.C. community. The recipient will be selected on the basis of a class vote at the end of Phase 1.</td>
</tr>
<tr>
<td><strong>Amount:</strong> 1 award of $100</td>
<td></td>
</tr>
<tr>
<td>OVMA Animal Behaviour and Welfare Award [I2095]</td>
<td>Presented by the Ontario Veterinary Medical Association. Application not required. One award of $250 and a plaque.</td>
</tr>
<tr>
<td><strong>Donor(s):</strong> Ontario Veterinary Medical Association</td>
<td><strong>Qualification(s):</strong> Student who has completed Phase 2 of the D.V.M. program with the highest grade in the animal behaviour component of the course VETM*3410 (Health Management II).</td>
</tr>
<tr>
<td><strong>Amount:</strong> 1 award of $250</td>
<td></td>
</tr>
<tr>
<td>OVMA-Erie Herd Health and Population Medicine Award [C2081]</td>
<td>Presented by the Veterinary Association and the Ontario Veterinary Medical Association. Application not required. One award of $500 and an engraved plaque.</td>
</tr>
<tr>
<td><strong>Donor(s):</strong> Ontario Veterinary Medical Association</td>
<td><strong>Qualification(s):</strong> Student who has successfully completed Phase 4 of the D.V.M. program who has the highest average in VETM*4850 (Health Management).</td>
</tr>
<tr>
<td><strong>Amount:</strong> 1 award of $500</td>
<td></td>
</tr>
<tr>
<td>Pet Food Certification Nutrition Prize [I2161]</td>
<td>The Canadian Veterinary Medical Association (CVMA) has established this award to raise awareness of the CVMA Pet Food Certification Program. One award is presented in each Canadian veterinary college to a student that submits the best case report. The winning report will be selected on the basis of scientific content, relevance to the field of small animal nutrition and quality of the manuscript. Reports must be 1000 to 2500 words in length and in a format suitable for publication in the Canadian Veterinary Journal. Submit reports to the OVC Assistant Dean for Student Affairs by January 22.</td>
</tr>
<tr>
<td><strong>Donor(s):</strong> Canadian Veterinary Medical Association</td>
<td><strong>Qualification(s):</strong> Full-time students in Phase 3 of the DVM program with satisfactory academic standing.</td>
</tr>
<tr>
<td><strong>Amount:</strong> 1 award of $2,500</td>
<td></td>
</tr>
<tr>
<td>Pfizer Animal Health Company Prizes [C2055]</td>
<td>Pfizer Animal Health, Pfizer Canada Inc. presents two prizes to students in the D.V.M. program. Application not required. One award of $150 (Large Animal Clinics) and one award of $100 (Small Animal Clinics).</td>
</tr>
<tr>
<td><strong>Donor(s):</strong> Pfizer Company of Canada</td>
<td><strong>Qualification(s):</strong> Students who have successfully completed Phase 4 of the D.V.M. program and who have demonstrated greatest proficiency in large animal medicine in the course VETM<em>4840 (Large Animal Clinics) and greatest proficiency in small animal surgery in the course VETM</em>4830 (Small Animal Clinics).</td>
</tr>
<tr>
<td><strong>Amount:</strong> 1 award of $150, 1 award of $100</td>
<td></td>
</tr>
<tr>
<td>Pfizer Scholarship [I2049]</td>
<td>Pfizer Animal Health, Pfizer Canada Inc. donates two scholarships to students in the D.V.M. program. Application not required.</td>
</tr>
<tr>
<td><strong>Donor(s):</strong> Pfizer Company of Canada</td>
<td><strong>Qualification(s):</strong> Students who have completed Phase 2 and Phase 3 of the D.V.M. program. The recipients will be selected by his or her classmates on the basis of scholarship and leadership.</td>
</tr>
<tr>
<td><strong>Amount:</strong> 2 awards of $500</td>
<td></td>
</tr>
<tr>
<td>Robert Walker Memorial Scholarship [I2071]</td>
<td>This award is presented by O.V.C.78 in memory of their classmate, Robert Walker. Application not required.</td>
</tr>
<tr>
<td><strong>Donor(s):</strong> OVC ’78</td>
<td><strong>Qualification(s):</strong> Student who has completed Phase 1 of the D.V.M. program with the highest standing in VETM*3070 (Veterinary Anatomy).</td>
</tr>
<tr>
<td><strong>Amount:</strong> 1 award of $150</td>
<td></td>
</tr>
<tr>
<td>Royal Canadian Army Veterinary Corps Prize [I2097]</td>
<td>In 1923, Colonel C.E. Edgett (O.V.C. 1906), donated the funds from the proceeds of the sale of a horse ambulance, donated by the RSPCA for use in World War I, to establish the Royal Canadian Army Veterinary Corps Prize. Applicants must submit a plan for the work/study visit and a letter from the host to the O.V.C. Awards Committee by the end of Phase 2.</td>
</tr>
<tr>
<td><strong>Donor(s):</strong> Colonel C.E. Edgett (OVC 1906)</td>
<td><strong>Qualification(s):</strong> Student who has completed Phase 1 of the D.V.M. program planning a work/study visit to an equine facility during the summer between second and third year. In keeping with the original terms of the award, the care and welfare of horses should be a significant component of the proposal. Selection will be based on the merit of the proposal and academic performance.</td>
</tr>
<tr>
<td><strong>Amount:</strong> 1 award of $350</td>
<td></td>
</tr>
<tr>
<td>Schering-Plough Canada Leadership Prize [I2133]</td>
<td>Schering-Plough Canada has established this prize as part of their commitment to veterinary education. Application not required.</td>
</tr>
<tr>
<td><strong>Donor(s):</strong> Schering-Plough Canada</td>
<td><strong>Qualification(s):</strong> Student who has completed Phase 3 of the D.V.M. program and who, based on class nomination and a class vote, in the minds of his or her fellow students continues to demonstrate outstanding leadership, versatility of interests and involvement in community affairs, both within and outside the College and the University.</td>
</tr>
<tr>
<td><strong>Amount:</strong> 1 award of $750</td>
<td></td>
</tr>
<tr>
<td>Schering-Plough Canada Prize in Bovine Reproduction [C2132]</td>
<td>Schering-Plough Canada has established this prize as part of their commitment to veterinary education. Application not required.</td>
</tr>
<tr>
<td><strong>Donor(s):</strong> Schering-Plough Canada</td>
<td><strong>Qualification(s):</strong> Student successfully completing Phase 4 of the D.V.M. program who has exhibited outstanding performance in the theriogenology and ruminant field service rotations during his or her final year.</td>
</tr>
<tr>
<td><strong>Amount:</strong> 1 award of $750</td>
<td></td>
</tr>
</tbody>
</table>
Stephanie Wilken Volunteer Award [I0449]
Established by the Wilken family in memory of Stephanie Wilken, BA 1995. Apply to Student Financial Services with letter indicating the kind and extent of volunteer activities at the Wellness Centre by October 1. Selection committee is the Senate Committee on Awards on the recommendation of the Student Wellness Educator at the Wellness Centre.

Donor(s):

Amount: 1 award of $1,000

United Steelworkers LU4120 Scholarship [I0293]
Apply to Student Financial Services, by January 31.

Donor(s): United Steelworkers LU4120

Qualification(s): Student who is a member or former member, or who is from the immediate family of a member of United Steelworkers LU 4120, and who is entering semester 2, 3, or 4 of a degree or diploma program in the Winter semester. If there is more than one eligible candidate, the award will go to the one who has attained the highest relative class standing in his or her previous full-time semester, provided that a minimum of 70% standing is obtained.

Amount: 1 award of $800

Van Stralen and Van Der Hoeven Memorial Scholarship [I0296]
Application will be made by nominations signed by 4 currently registered students forwarded to Student Financial Services by April 1. Presentations are made in the Fall semester.

Donor(s): Mr. & Mrs. J. Van Stralen & family and Mr. & Mrs. Hans Van Der Hoeven & family

Qualification(s): Students that have completed a minimum of 2.0 credits, but not more than 7.5 in the Winter term in any degree program who have obtained a minimum of 70% standing. Selection will be made on the basis of participation in university activities and in the student's home community as well as qualities of leadership, ambition and initiative.

Amount: 2 awards of $400

W.C. Winegard Medal [C0311]
The W.C. Winegard Medal is the most prestigious graduating award of the University of Guelph. One student will be nominated by each College Awards Committee. The Senate Awards Committee will make the final selection and the medal will be awarded at Convocation in June. Application not required.

Donor(s): The Board of Governors of the University

Qualification(s): Graduating student who excels both academically and in extracurricular activities.

Amount: 1 Gold medal

W.G. Stevenson Memorial Scholarship [C2063]
Presented as a memorial to Dr. W. Gordon Stevenson O.V.C.'37 by Pfizer Animal Health. Application not required.

Donor(s): Roger/STB Division - BTI Products Inc.

Qualification(s): Student who has successfully completed Phase 4 of the D.V.M. program and who is most proficient in bovine reproduction and obstetrics in the course VETM*4850 (Health Management).

Amount: 1 award of $150

W.J.R. Fowler Prize [C2021]
Wilfreda Fowler Jackson presents a prize in memory of her father, Dr. W.J.R. Fowler. Application not required.

Donor(s): Wilfreda Fowler Jackson

Qualification(s): Student who has successfully completed Phase 4 of the D.V.M. program who is most proficient in equine medicine and surgery in the course VETM*4840 (Large Animal Clinics).

Amount: 1 award of $100

W.N. Vaughan Medal [C0299]
Prospective candidates will be nominated by Senators and the medal winner will be chosen by a committee selected by the Striking Committee. The medal will be awarded at Convocation in June. Application not required.

Donor(s): Friends of Walter N. Vaughan

Qualification(s): Student senator who has high academic standing and who has made a substantial contribution to student life and to the University, particularly through involvement in and commitment to Senate activities.

Amount: 1 Medal

W.N. Vaughan Medal [C0299]

Donor(s):W.N. Vaughan

Qualification(s): Student registered in any undergraduate degree program, who has been a volunteer for at least two semesters at the Wellness Centre. The recipient will be selected on the basis of academic performance in all courses to date and volunteer work at the Wellness Centre.

Amount: 1 award of $1,000

Bev and Darlene Wilken

W.J.R. Fowler Prize [C2021]

Donor(s):Ayerst Laboratories

Qualification(s): Students who have successfully completed Phase 4 of the D.V.M. program. The recipients will be selected on the basis of the quality of the case report required for completion of course VETM*4900 (Veterinary Externship). One award will be given for the best case report in production animals (swine, beef, or dairy) and the other award will be given for the best case report for companion animals.

Amount: 2 awards of $500

Ayerst Laboratories Prize [C2005]

Donor(s):Ayerst Laboratories

Qualification(s): Awarded to students who have successfully completed Phase 4 of the D.V.M. program. The recipients will be selected on the basis of proficiency in preventative medicine. Application not required.

Amount: 1 or more awards of awards of $750

In-course Scholarships with Financial Need

Euclid-Hitachi Scholarships [I4517]
Established by Euclid-Hitachi of Canada Ltd., with the assistance of the Ontario government's OSOTF program, to assist students with financial need to continue their studies as full-time students. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

Donor(s): Euclid-Hitachi of Canada Ltd.

Qualification(s): Students with a minimum cumulative average of 70% with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

Amount: 2 awards of $1,500

Graham Family Incentive Scholarship [I4806]
Provided by Harvey Graham (OAC '39) with the assistance of the Ontario government's OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

Donor(s): Harvey Graham OAC '39

Qualification(s): Students entering the fourth year of a four year degree program, maintaining at least a 70% program average and demonstrating financial need, who have previously received the Harvey Graham Bursary. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

Amount: 1 award of $5,000

Howard N.B. Dorfman Scholarship [I2520]
Established by the family of the late Howard N.B. Dorfman (O.V.C.’78), with the assistance of the Ontario government’s OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

Donor(s): The family of the late Howard N.B. Dorfman

Qualification(s): Student who has completed Phase 4 (semester 8) of the D.V.M. program and who has demonstrated the most outstanding achievement in veterinary neurology, based on performance in the Neurology rotation of the course Small Animal Clinics (VETM*4830).

Amount: 1 award of $250

John B. Walkden and Malcolm T. Bond Prize [I2512]
Established by John B. Walkden and Malcolm T. Bond, with the assistance of the Ontario government’s OSOTF program. Apply with a completed Need Assessment Form, to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

Donor(s): Estate of John B. Walkden

Qualification(s): Full-time students in the DVM program who has successfully completed the course Veterinary Externship (VETM*4900). The recipient will have been judged to be proficient in bovine medicine and surgery during the externship, based on the host practitioner’s evaluation. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

Amount: 1 award of $3,100
OVC Class of 1977 Memorial Scholarship [I2510]
The Class of O.V.C. 1977, with the assistance of the Ontario government's OSOTF program, established this scholarship after the tragic and untimely death of their classmate, Brian Mills, as a gesture of their great esteem for him. The Class also wishes that the scholarship honour all their classmates. Apply with a completed Need Assessment Form to Student Financial Services, by October 7. Awarded in the Winter semester. ACCESS AWARD

Donor(s): OVC '77
Qualification(s): Full-time students in the Phase 2 or Phase 3 of the D.V.M. program, with at least a 70% program average, and demonstrated financial need are eligible. Selection will be based on greatest need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

Amount: 1 award of $800

Robert, Louis and Helen Shaw Memorial Degree Scholarships [I4520]
Established by the Shaw Scholarship Committee with the assistance of the Ontario government's OSOTF program. Apply by letter, including a summary of local agricultural activities and a completed Need Assessment Form, to Student Financial Services by October 7. ACCESS AWARD

Donor(s): The Shaw Scholarship Committee
Qualification(s): Students registered in the B.A.Sc, B.COMM. in Agricultural Business, B.SC.(Agr.) or D.V.M. programs studying agriculture, horticulture, equine studies, food and nutrition or veterinary sciences with demonstrated financial need, a 70% cumulative average and involvement in local agricultural activities. Preference will be given to first year students from Peterborough County. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

Amount: Several awards of $1,000

Tara Lynn Giuliani Memorial Award [I0375]
In memory of Tara Lynn Giuliani, a bright young woman, who did not let her blindness stand in the way of her studies at the University of Guelph. Apply to the Centre for Students with Disabilities by November 25.

Donor(s): The Giuliani Family
Qualification(s): Most academically promising applicant with a demonstrated disability and having financial need.

Amount: 1 award of $500

Walter and Marion MacDougald Scholarship [I4530]
Established by the family of Walter and Marion MacDougald on the 50th wedding anniversary of their parents, in recognition of their gift of life-long learning to their five children, with the assistance of the Ontario government's OSOTF program. Apply to Student Financial Services by October 7 with a completed Need Assessment Form and a résumé that includes evidence of demonstrated leadership. ACCESS AWARD

Donor(s): Doug MacDougald, DVM
Qualification(s): Students demonstrating financial need with a minimum of 10.0 credits and less than 15.0 credits and who are in the following programs/majors/minors: B.A.Sc., B.SC.(Agr.), B.SC.(Env.), B.SC. (Food Science, Animal Biology, Nutrition, or Forest Science), or D.V.M. are eligible. Students will have demonstrated leadership and a commitment to excellence and a minimum cumulative average of 70%. Recipients will be enrolled in a program involved in food supply or utilization, farmland conservation or woodland management. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

Amount: 2 awards of $1,000

In-course Awards with Financial Need

Allan Cawley Bursary [I2501]
Established by Dr. Allan Cawley, with the assistance of the Ontario government's OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services, by October 7. Awarded in the Winter semester. ACCESS AWARD

Donor(s): Established by Dr. Allan Cawley
Qualification(s): Full-time D.V.M. and graduate students in the Ontario Veterinary College with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

Amount: 3 awards of $500

Auxiliary to Ontario Veterinarians Bursary [I2077]
Endowed by the Auxiliary to Ontario Veterinarians, supporting the profession from 1946 to 1990. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester.

Donor(s): The Auxiliary to Ontario Veterinarians
Qualification(s): Undergraduate veterinary students who have a record of satisfactory academic performance and who have demonstrated need of financial assistance.

Amount: 1 award of $300

Bette Stephenson Accessibility Bursary [I3054]
In recognition of the work of Dr. Bette Stephenson in supporting students with learning disabilities, the University of Guelph offers bursaries to students who have demonstrated financial need and who have a learning disability. These bursaries will be used to offset the costs of a required assessment, or the purchase of a computer that is required to support their learning needs. Apply to Student Financial Services, with a completed Need Assessment Form by October 7. Awarded in the Winter semester.

Donor(s): University of Guelph
Qualification(s): Undergraduate students who have demonstrated financial need and who have a learning disability. Students must be full-time (as defined by OSAP regulations) and Canadian citizens or permanent residents.

Amount: 3 awards to a maximum of $1,500

Burnbrae Farms Bursaries [I3525]
Established by Burnbrae Farms, with the assistance of the Ontario government's OSOTF program, to assist students with financial need to continue their studies as full-time students. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

Donor(s): Burnbrae Farms
Qualification(s): Full-time students with demonstrated financial need. Preference will be given to students with a demonstrated interest in poultry science. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

Amount: 2 awards of $1,500

Canadian Animal Health Institute Bursary [I2507]
Established by the Canadian Animal Health Institute, with the assistance of the Ontario government's OSOTF program. Apply to Student Financial Services with a completed Need Assessment Form by October 7. Awarded in the Winter semester. ACCESS AWARD

Donor(s): Canadian Animal Health Institute
Qualification(s): Full-time student in the D.V.M. program with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

Amount: 1 award of $575

Canadian Kennel Club Bursaries [I2101]
The Canadian Kennel Club provides funds for a limited number of bursaries to assist students in the D.V.M. program. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester.

Donor(s): The Canadian Kennel Club
Qualification(s): Students in the D.V.M. program with demonstrated financial need.

Amount: Several varies

Class of '72: 25th Reunion Bursaries [I3512]
Established by the Class of '72: 25th Reunion Fund with the assistance of the Ontario government's OSOTF program to support students who wish to study full-time. Apply to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

Donor(s): Class of '72: 25th Reunion
Qualification(s): Full-time students with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

Amount: 3 awards of $1,000
IX. Scholarships and Other Awards, Doctor of Veterinary Medicine

Dean's Access Bursaries [12502]
Established by Alumni and friends of O.V.C., with the assistance of the Ontario government's OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD. A number of awards ranging from $500 to $2,000.

Donor(s): Alumni and Friends of OVC
Qualification(s): Undergraduate and graduate students in the Ontario Veterinary College with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).
Amount: Several varies

Dr. Francis J. FitzGerald Memorial Bursaries [12082]
Established by family, friends, colleagues and clients of Dr. Francis J. FitzGerald (O.V.C.'37) to honour his commitment to veterinary medicine. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Distributed in the Winter semester.

Donor(s): Mrs. Virginia Fitzgerald
Qualification(s): Students enrolled in the D.V.M. program who have a record of satisfactory academic performance and have demonstrated financial need.
Amount: 1 award of $500

Dr. M. Adrian Gross Memorial Bursaries [12106]
Established by family, friends and colleagues of Dr. M. Adrian Gross (O.V.C.'54), a respected veterinarian and a valued employee of the Food and Drug Administration and the Environmental Protection Agency. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester.

Donor(s): Dora Gross
Qualification(s): Students enrolled in the D.V.M. program with a satisfactory academic performance and a demonstrated need of financial assistance.
Amount: 1 award of $450

Dr. Andrew Grant Misener Bursaries [12159]
Established by Dr. Andrew Grant Misener (O.V.C.'38), alumnus of the University of Guelph, with the assistance of the Ontario government's OSOTF program, has established an endowment fund for bursaries to provide financial assistance to students in the D.V.M. program. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

Donor(s): Dr. Andrew Grant Misener (O.V.C.'38)
Qualification(s): Students enrolled in the D.V.M. program with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).
Amount: 2 awards of $1,500

Dr. R.C. Croucher Bursaries [12519]
Established by Dr. Ross C. Croucher, with the assistance of the Ontario government's OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

Donor(s): Ross C. Croucher, OVC '50
Qualification(s): Students registered in the D.V.M. program with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).
Amount: 1 award of $800

Edith B. Williams Bursary [12072]
This bursary is provided in memory of Dr. Williams, O.V.C.'41. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester.

Donor(s): Edith B. Williams
Qualification(s): Students enrolled in the D.V.M. program who have a record of satisfactory academic performance and have demonstrated financial need.
Amount: Several varies

Elizabeth Burton Bursaries [13503]
Mrs. Elizabeth Burton, with the assistance of the Ontario government's OSOTF program, provides bursaries to students with demonstrated financial need. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD. A number of awards totalling $2,900.

Donor(s): Mrs. Elizabeth Burton
Qualification(s): Students in second, third or fourth year with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).
Amount: Several awards of $2,900

Essex County Veterinary Association Bursary [12529]
Established by the Essex County Veterinary Association, with the assistance of the Ontario government's OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

Donor(s): Essex County Veterinary Association
Qualification(s): D.V.M. student with demonstrated financial need. Preference will be given to a student from Essex County. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).
Amount: 1 award of $500

Gloria Lemieux Bursaries [12156]
Established by the late Gloria Lemieux through a will bequest, these bursaries recognize her concern for animals and desire to help students pursuing veterinary studies. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester.

Donor(s): Estate of Gloria Lemieux
Qualification(s): Students enrolled in the D.V.M. program who have a record of satisfactory academic performance and demonstrated need of financial assistance.
Amount: Several varying

Grant and Muriel Crittenden Bursaries [12018]
Established by the estate of Grant and Muriel Crittenden.

Donor(s): The estate of Grant and Muriel Crittenden
Qualification(s): Students enrolled in the D.V.M. program who have a record of satisfactory academic performance and demonstrated need of financial assistance.
Amount: Several varying

Grant Misener Bursaries [12538]

Donor(s): Dr. Andrew Grant Misener (O.V.C.'38)
Qualification(s): Students enrolled in the D.V.M. program with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).
Amount: Several varying

Gryphon Investment Council Bursaries [13513]
Established by Gryphon Investment Counsel, with the assistance of the Ontario government's OSOTF program. Awarded in the Winter semester. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

Donor(s): Gryphon Investment Council Inc.
Qualification(s): Full-time students with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).
Amount: 2 awards of $1,500

Guelph Compassionate Health Bursary [13061]
Established by the Guelph Compassionate Health Bursary. This bursary has been established and approved by the Student Health and Dental Committee to assist students facing unforeseen health needs above and beyond the benefits offered through the mandatory University of Guelph student health plan. Submit a Financial Need Assessment application accompanied by the physician recommendation, cost estimates and physician contact information to the Awards Officer, Student Financial Services. The application will be reviewed throughout the semester to handle emergenices immediately.

Donor(s): Student Health and Dental Plan Reserve
Qualification(s): All currently registered students at the University of Guelph that are covered under the University of Guelph mandatory Student Health Plan. The student must require treatment for a condition not currently or completely covered by the Student Health Plan.
Amount: Several varies to a maximum $1,500

Last Revision: October 18, 2005
2005-2006 University of Guelph Undergraduate Calendar
Guelph Student Assistance Program [I3056]

These bursaries have been established and approved by undergraduate students through student referendum to assist undergraduate and University of Guelph campus diploma students in financial need. Apply to Student Financial Services with a completed Need Assessment Form by October 7. Typically, awarded in the Winter semester.

Donor(s): Undergraduate Students
Qualification(s): Full-time undergraduate students registered in any degree program with demonstrated financial need. Preference will be given to students who are not eligible for provincial and/or federal assistance programs such as Ontario Student Assistance Program (OSAP) and/or Canada Student Loan Program (CSLP).

Amount: Several awards of varying amounts up to $1,000

Helen Davidson Memorial Bursary [I2509]

Established by Gladys M. Davidson, as a memorial to her beloved sister Helen, with the assistance of the Ontario government’s OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services, by October 7. Awarded in the Winter semester. ACCESS AWARD

Donor(s): Established by Gladys M. Davidson
Qualification(s): Full-time students in the D.V.M. program who have demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

Amount: 8 awards of $1,000

Hill’s Bursary [I2511]

Established by Hill’s Pet Nutrition, with the assistance of the Ontario government’s OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

Donor(s): Hill’s, Division Riviana Foods
Qualification(s): D.V.M. student with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

Amount: 1 award of $1,500

Howard and Myrtle Rogers Bursaries [I3537]

Provided by the Estate of Howard and Myrtle Rogers, with the assistance of the Ontario government’s OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

Donor(s): The Estate of Howard and Myrtle Rogers
Qualification(s): Students with demonstrated financial need. Preference will be given to students from Wellington County. Students are encouraged to apply for an award in each year of study. The award may have been held in previous years but students must demonstrate on-going financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

Amount: 10 up to $2,000

International Emergency Medical Aid Assistance [I3059]

The University of Guelph provides support to International undergraduate students that are faced with unexpected, or unforeseen financial shortfalls due to a medical issue not covered by UHIP or the Student Dental/Medical insurance plans. Students should apply to the International Student Advisor, in the Centre for International Programs office, by completing an International Student Financial Need Assessment Form and submitting documentation to support the medical issue. These bursaries are awarded on an on-going basis.

Donor(s): University of Guelph
Qualification(s): Any International student registered in a degree program at the University of Guelph with a minimum registration of 1.50 course credits.

Amount: Several awards of varying amounts

International Student Bursaries [I3009]

Mrs. Norma L. Valeriote has made available a number of bursaries. Apply to the International Student Advisor.

Donor(s): Mrs. Norma L. Valeriote
Qualification(s): Students who are citizens of Third World countries, as defined by the United Nations, who are registered in a degree or diploma program and who demonstrate financial need.

Amount: Several varies

Irvine and Grace Black Memorial Bursary [I3051]

Established in memory of Irvine and Grace Black, by friends and family to recognize their many contributions to young people. Irvine, a well-known sheep breeder, was a judge at College Royal and the Royal Winter Fair for over fifty years, and Grace was active in the Women's Institute and the Fergus Fall Fair. Apply to Student Financial Services with a completed Need Assessment Form and a letter outlining involvement in the 4-H Club and/or a Women's Institute by October 7. Awarded in the Winter semester.

Donor(s): Family and friends of Irvine and Grace Black
Qualification(s): Full-time undergraduate students registered in any degree program with demonstrated financial need. Preference will be given to applicants who are, or have been, active in the 4-H Club and/or a Women's Institute.

Amount: 1 award of $500

Lady Glencora Bursaries [I2586]

Established by the Rathly Foundation, with the assistance of the Ontario government’s OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services by October 7. ACCESS AWARD

Donor(s): The Rathly Foundation
Qualification(s): Undergraduate students in the D.V.M. program, students registered in the Faculty of Graduate Studies and enrolled in a department of the Ontario Veterinary College, and undergraduate students in the honours B. Sc. (Bio-Med) program who have demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

Amount: Several awards of $5,000

Lesley Lewisohn Stewart Bursary [I2064]

Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester.

Donor(s):?
Qualification(s): Students enrolled in the D.V.M. program who have a record of satisfactory academic performance and have demonstrated financial need.

Amount: Several varies

Margaret Emma (Peggy) and Donald Alan Melton Bursaries [I2503]

Established by Donald Alan Melton, with the assistance of the Ontario government's OSOTF program, as a memorial to his beloved wife, Peggy, and in recognition of her lifelong devotion to animals and concern for their welfare. Apply with a completed Need Assessment Form to Student Financial Services, by October 7. Awarded in the Winter semester. ACCESS AWARD

Donor(s): Established by Donald Alan Melton
Qualification(s): Full-time undergraduate students in the D.V.M. program and to graduate students registered in the Faculty of Graduate Studies and enrolled in a department of the Ontario Veterinary College. Eligible undergraduate students must have completed Phase 1 of their program with satisfactory academic performance. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

Amount: 4 awards of $1,000

Mary I. Whitelock Bursaries [I3524]

Established by the estate of Mary I. Whitelock, a friend of the University, with the assistance of the Ontario government's OSOTF program, to assist students who wish to study full-time but who need financial support to do so. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

Donor(s): Estate of Mary I. Whitelock
Qualification(s): All undergraduate, graduate or OAC diploma students with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

Amount: 13 awards of $2,000

Maude Loretta Trapp Bursaries [I2099]

Maude Loretta Trapp, a humanitarian and lover of animals has established this bursary for undergraduate veterinary students who are residents of North Western Ontario. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester.

Donor(s): The estate of Maude Loretta Trapp
Qualification(s): Students enrolled in the D.V.M. program who are residents of North Western Ontario (whole district of Thunder Bay and all the territory west to the Manitoba border), who have a record of satisfactory academic performance and have demonstrated financial need.

Amount: Several varies
IX. Scholarships and Other Awards, Doctor of Veterinary Medicine

Ontario Co-operatives R.P. Forshaw Bursary [I3013]
The Co-operatives, Credit Unions, friends and associates of Prof. R. P. Forshaw have established this bursary. Apply to Student Financial Services with a completed Need Assessment Form by October 7. Awarded in the Winter semester.

Donor(s): The Co-operatives, Credit Unions, friends and associates of Prof. R.P. Forshaw
Qualification(s): Undergraduate students who have financial need. Preference may be given to candidates who have been or are members of a co-operative or credit union.
Amount: 1 award of $400

Ontario Veterinary Medical Association Bursary [I2505]
Established by the Ontario Veterinary Medical Association with the assistance of the Ontario government's OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

Donor(s): Ontario Veterinary Medical Association
Qualification(s): Full-time students in the D.V.M. program with demonstrated financial need. Preference will be given to OVMA student members. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).
Amount: 1 award of $500

OVC '39 ACCESS Bursary [I2591]
Established by the Class of O.V.C.'39, with the assistance of the Ontario government's OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services, by October 7. Awarded in the Winter semester. ACCESS AWARD

Donor(s): OVC '39
Qualification(s): Full-time students in the D.V.M. program with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).
Amount: 1 award of $1,000

OVC '48 Bursary [I2116]
Established by the class of O.V.C.'48 and their families to assist undergraduate veterinary students with demonstrated financial need. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester.

Donor(s): Class of OVC '48
Qualification(s): Students enrolled in the D.V.M. program with a record of satisfactory academic performance and demonstrated financial need. Preference will be given to students who have completed Phase 2 of the D.V.M. program.
Amount: Several varies

OVC '52 Bursary [I2143]
Established by the class of O.V.C.'52 in memory of deceased classmates to assist undergraduate veterinary students with demonstrated financial need. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester.

Donor(s): The Class of OVC '52
Qualification(s): Students enrolled full-time in the D.V.M. program with a record of satisfactory academic standing and the greatest demonstrated financial need.
Amount: 1 award of $1,500

OVC '55 Bursaries [I2508]
Established by the Class of O.V.C.'55, with the assistance of the Ontario government's OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services, by October 7. Awarded in the Winter semester. ACCESS AWARD

Donor(s): OVC '55
Qualification(s): Full-time students in the D.V.M. program with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).
Amount: 5 awards of $500

OVC '49 and Dr. Ray Cormack Bursaries [I2504]
Established by the Class of O.V.C.'49 and Dr. Ray Cormack (O.V.C.'49), with the assistance of the Ontario government's OSOTF program, to commemorate the 50th anniversary of their graduation from the college. Apply with a completed Need Assessment Form to Student Financial Services, by October 7. Awarded in the Winter semester. ACCESS AWARD

Donor(s): OVC '49-Cormack Fund
Qualification(s): Full-time students in the Doctor of Veterinary Medicine program who have demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).
Amount: 5 awards of $1,000

Pearl and Percy Kaine Bursaries [I2500]
Pearl and Percy Kaine, Guelph landowners and dairy farmers who had an interest in horses, have provided financial assistance to veterinary students through the Pearl and Percy Kaine Bursaries with the assistance of the Ontario government's OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

Donor(s): Pearl and Percy Kaine Bursaries
Qualification(s): One award will be given annually to one student in each of the four years of the D.V.M. program who has demonstrated the greatest financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).
Amount: 4 awards of $2,500

Pfizer Bursaries [I2506]
Provided by Pfizer Canada Inc., with the assistance of the Ontario government's OSOTF program. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

Donor(s): Pfizer Canada Inc.
Qualification(s): Full-time students in the D.V.M. program with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).
Amount: 3 awards of $1,000

Robert Auger Humanitarian Bursary [I3058]
This award, of up to $500, has been established through the generosity of staff in the Office of Registrarial Services, family and friends of Robert Auger, a former Associate Registrar at the University of Guelph. It is intended as an emergency fund to assist students who unexpectedly find themselves in difficult financial circumstances, to provide grocery, and textbook vouchers.

Donor(s): Office of Registrarial Services
Qualification(s): Students who require assistance through this fund should apply in confidence to the Assistant Registrar, Financial Aid, Student Financial Services.
Amount: Several awards of $500

Robinson Memorial Bursary [I2118]
Provided in memory of Dr. Gerry Robinson, a popular teacher and exemplary scientist in the Department of Biomedical Sciences at the Ontario Veterinary College (1957-1992) by family, friends and colleagues. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester.

Donor(s): Mrs. Barbara Robinson
Qualification(s): Student enrolled in the D.V.M. program with a record of satisfactory academic performance and demonstrated financial need.
Amount: Several varies

Scotiabank Bursaries [I3532]
Established by Scotiabank, with the assistance of the Ontario government's OSOTF program, to assist students with financial need to continue their studies as full-time students. Distributed in the Winter semester. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD

Donor(s): Scotiabank
Qualification(s): Full-time students with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).
Amount: 2 awards of $1,500

Last Revision: October 18, 2005
2005-2006 University of Guelph Undergraduate Calendar
Sigmund Samuel Goodman Memorial Bursary [I2050]
Friends and family of Sigmund Samuel Goodman, humanitarian and lover of animals, have endowed funds for a memorial bursary. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester.

Donor(s): Dr. Robert Bennett
Qualification(s): Students enrolled in the D.V.M. program with a satisfactory academic performance and a demonstrated need of financial assistance.
Amount: Several varies

Thibeault Bursaries [I2067]
Established by Dr. C. Thibeault, a former student of O.V.C. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester.

Donor(s): Dr. C. Thibeault
Qualification(s): Students enrolled in the D.V.M. program who have a record of satisfactory academic performance and have demonstrated financial need.
Amount: Several varies

University of Guelph Access Bursaries [I3522]
Provided by alumni and friends of the University, with the assistance of the Ontario government's OSOTF program, to support undergraduate, graduate or OAC (Guelph) diploma students who wish to study full-time but who need financial support to do so. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD. Variable amounts from $500 to $2,000

Donor(s): Alumni and Friend of the University of Guelph
Qualification(s): Full-time students with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).
Amount: Several awards of $500, Several awards of $2,000

University of Guelph Alumni Association Access Bursaries [I3523]
Established by the University of Guelph Alumni Association, with the assistance of the Ontario government's OSOTF program, to support students who wish to study full-time but who need financial support to do so. Apply with a completed Need Assessment Form to Student Financial Services by October 7. Awarded in the Winter semester. ACCESS AWARD.

Donor(s): University of Guelph Alumni Association
Qualification(s): Full-time in-course students with demonstrated financial need. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).
Amount: Several awards of $500, Several awards of $2,000

University of Guelph Child Care Bursaries [I3053]
In order to provide accessible child care to students with (a) child(ren), the University of Guelph offers bursaries to students who have demonstrated financial need. Apply to Student Financial Services, with a completed Need Assessment Form by October 7. Awarded in the Winter semester. A number of awards of between $500 and $2,000.

Donor(s): University of Guelph
Qualification(s): Students, supporting (a) child(ren) who demonstrate greatest financial need, to offset the costs of child care. To be eligible, undergraduate students must be full-time (as defined by OSAP regulations) and Canadian citizens or permanent residents with demonstrated financial need.
Amount: Several awards of $500, Several awards of $2,000

University of Guelph International Bursary [I3048]
The University of Guelph provides support to International undergraduate students that are faced with unexpected, or unforeseen financial shortfalls while registered on campus. Students should apply to Benny Quay, in the Centre of International Programs office by completing an International Student Financial Need Assessment Form. These bursaries are awarded on an on-going basis.

Donor(s): University of Guelph
Qualification(s): Any International student registered in a degree program at the University of Guelph with a minimum registration of 1.50 course credits.
Amount: Several varies

University of Guelph Undergraduate In-Course Bursaries (MET-TR-UG) [I3037]
The University of Guelph offers in-course bursaries to students who have demonstrated financial need. Apply to Student Financial Services, with a completed Need Assessment Form by October 7. Awarded in the Winter semester.

Donor(s): University of Guelph
Qualification(s): Ontario students registered for full-time studies (as defined by OSAP) in a degree program with demonstrated financial need and a minimum of 2.0 course credits completed.
Amount: Several awards ranging in value from $100 to $3,000

University of Guelph Undergraduate In-Course Bursaries (NON OSAP TR) [I3047]
The University of Guelph offers in-course bursaries to students who have demonstrated financial need. Apply to Student Financial Services, with a completed Need Assessment Form by October 7. Awarded in the Winter semester.

Donor(s): University of Guelph
Qualification(s): Undergraduate students registered for full-time studies (as defined by OSAP) in a degree program with demonstrated financial need and a minimum of 2.0 course credits completed.
Amount: Several awards to a maximum of $800

University Police Bursaries [I3019]
The University Police have made available a number of bursaries. Apply to Student Financial Services with a completed Need Assessment Form by October 7.

Donor(s): The University Police
Qualification(s): Full-time undergraduate and graduate students who have financial need.
Amount: Several varies

University Student Assistance Program [I3057]
These bursaries have been established and approved by the University of Guelph to assist undergraduate and University of Guelph campus diploma students in financial need. Apply to Student Financial Services with a completed Need Assessment Form by October 7. Typically, awarded in the Winter semester.

Donor(s): University of Guelph
Qualification(s): Full-time undergraduate students registered in any degree program with demonstrated financial need. Preference will be given to students who are not eligible for provincial and/or federal assistance programs such as Ontario Student Assistance Program (OSAP) and/or Canada Student Loan Program (CSLP).
Amount: Several awards of varying amount to a maximum of $1,000

In-course Travel Grants

Arthur D. Latornell Undergraduate Travel Grans [T0058]
An endowment fund established in memory of Arthur D. Latornell, OAC ’50, who had a life-long professional career in resource management and conservation and a special interest in helping young people. The funds are given to provide twenty-five travel grants. These travel grants are offered to assist students in attending conferences, courses, co-op student exchanges or study abroad programs in these areas. Students may receive this grant only once. Apply to Student Financial Services. Deadline dates are June 1 for Fall travel, October 1 for Winter travel, and February 1 for Summer travel. Up to 80% of estimated travel costs to a maximum of $1,000.

Donor(s): The Estate of Arthur D. Latornell
Qualification(s): Students in semester 3 and above. Students must have at least a 70% average and a primary area of interest related to natural resources management, environmental science, conservation, soil science and/or rural development. Students will be asked to submit a one-page review of their travel experience, including the role the travel grant played, to the University after completion of the travel.
Amount: several up to a maximum of $1000
### Canadian Friends of the Hebrew University in Jerusalem Travel Bursary [T4532]

The Canadian Friends of the Hebrew University of Jerusalem, with the assistance of the Ontario government's OSOTF program, have established this travel scholarship to assist students study at the Hebrew University of Jerusalem. Apply by letter with a completed Need Assessment Form to Student Financial Services by May 1. ACCESS AWARD. Up to three awards totalling $7500.

**Donor(s):** Canadian Friends of the Hebrew University in Jerusalem  
**Qualification(s):** Undergraduate degree students in either the second or third year of study, Masters students in the first year of study, and Doctoral students in the first three years of study are eligible to be considered. Applicants must provide documentation that they have approval from the Hebrew University of Jerusalem (i) to take courses and (ii) for the period of the visit. Students must also arrange appropriate University of Guelph approvals for a "Letter of Permission" prior to applying. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** Up to three awards totalling $7500

### OVC Alumni Association Travel Scholarship [T2044]

Presented by the O.V.C. Alumni Association to support summer work programs under the direction of a faculty member at another University. Applications must be submitted in writing to the O.V.C. Awards Committee before the Christmas break in Phase 3, with a reference from at least one O.V.C. instructor and a letter indicating that satisfactory arrangements have been made for the summer work.

**Donor(s):** OVC Alumni Association  
**Qualification(s):** Student who has completed Phase 2 of the D.V.M. program with high academic standing. The Awards Committee will consider the qualities of leadership, integrity, personality and the ability to communicate well. The recipient must indicate that arrangements have been made to work in the summer between Phases 3 and 4 under a faculty member at another University.

**Amount:** 1 award of $1,500

### Richard and Sophia Hungerford Undergraduate Travel Scholarships [T4508]

The estate of Richard and Sophia Hungerford, with the assistance of the Ontario government's OSOTF program, has established an endowment to provide travel scholarships to undergraduate students with demonstrated financial need who wish to study in developing countries, or attend conferences on development. Apply to Student Financial Services with a description of the intended travel, an estimate of the travel costs and a completed Need Assessment Form at least one month prior to departure. Deadline dates are June 1 for Fall travel, October 1 for Winter travel, and February 1 for Summer travel. ACCESS AWARD.

**Donor(s):** The Estate of Richard Hungerford  
**Qualification(s):** Registered undergraduate students with demonstrated financial need who have at least a 70% cumulative average in the last 2 semesters of full-time equivalent study are eligible. Additionally, students must meet the government-mandated terms for receipt of an OSOTF award (see General Statements on Awards).

**Amount:** Several awards of varying amounts to a maximum of $1,000

### University of Guelph Travel Scholarships [T0421]

The University of Guelph, through the sale of Guelph London House, has established an endowment to provide travel scholarships to undergraduate and graduate students who wish to study outside of Canada but need financial support to do so. A total of $35,000 is available in the fund. Apply to Student Financial Services with a completed Travel Grant Application and Financial Need Assessment Form by October 1 for Winter travel, February 1 for Spring travel and June 1 for Fall travel.

**Donor(s):** University of Guelph  
**Qualification(s):** Registered undergraduate and graduate students that have completed 5.0 credits with demonstrated financial need who have a minimum 70% cumulative average in the last two semesters of full-time equivalent study are eligible to apply. The value of the award will depend on the assessed financial need. The scholarship can cover additional costs of travelling outside of Canada including: airfare, administrative costs, and differential costs of accommodation.

**Amount:** Several up to $1,000

### Vetoquinol Travel Scholarship in Avian Medicine [T2163]

Vetoquinol N-A Inc. established this award to support a DVM student attending the annual Association of Avian Veterinarians Conference. Apply by letter, outlining interest and experience in avian medicine, and expected benefit of attendance at the conference, to the OVC Assistant Dean, Student Affairs, by January 15.

**Donor(s):** Vetoquinol N-A Inc.  
**Qualification(s):** Full-time DVM students who have completed Phase 3 and are planning on attending the annual Association of Avian Veterinarians Conference.

**Amount:** 1 award of $1,000

### Vetoquinol Travel Scholarship in Bovine Reproduction [T2162]

Vetoquinol N-A Inc. established this award to support a DVM student attending the annual Society of Theriogenology Conference. Apply by letter, outlining interest and experience in bovine reproduction, and expected benefit of attendance at the conference, to the OVC Assistant Dean, Student Affairs, by January 15.

**Donor(s):** Vetoquinol N-A Inc.  
**Qualification(s):** Full-time DVM student planning to attend the annual Society of Theriogenology Conference

**Amount:** 1 award of $1,000

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Last Revision: October 18, 2005
Other Forms of Financial Assistance

Independent Study - O.A.C.

Vera Bezeredy Memorial Prize in Communications

Established by the Ontario Diploma in Horticulture Graduates Association in memory of Vera Bezeredy, the first female ODH graduate. Apply to Independent Study/O.A.C. ACCESS by letter on or before April 1.

Qualification(s): Graduating adult learner in the ODH program who, during the course of her or his studies, has demonstrated a high level of achievement and has been active in the horticulture field. The prize recognizes contributions to horticulture and landscaping, and interest in horticulture and landscaping.

Amount: One award of $450

Open Learning program Awards

Open Learning Bursaries

Established by faculty, staff and friends of Open Learning. These funds are intended to provide support for non-degree students that are enrolled in an Open Learning Program (courses, certificates, and diplomas) in need of financial assistance. Apply, online, through the Office of Open Learning web site at www.open.uoguelph.ca/bursary by June 30 for consideration for Fall, Winter, and/or Spring semesters of study.

Qualification(s): Canadian citizens or permanent residents in need.

Amount: Two awards of $250

Prof. H.J. Malik Statistics Prize

Provided in honour of H.J. Malik, Professor Emeritus in the Department of Mathematics and Statistics, by family, colleagues and friends. Application not required.

Qualification(s): Open Learning program distance education student who has completed the courses STAT*2060, Statistics for Business Decisions, with the highest attained grade over 80% in the previous year. All open Learning program students who complete this course in the previous spring, fall or winter semesters will automatically be considered the following May.

Amount: One award of $150

Ontario Student Assistance Program (OSAP)

Students who meet the Ontario residence requirements and who require financial assistance to attend the University, should apply for the Ontario Student Assistance Program (OSAP) online at http://osap.gov.on.ca. Students should refer to the OSAP website to review the eligibility and application process. Apply by the deadline date for the term you wish to attend.

Loans - All Colleges

International Student Loan Fund

Mrs. Norma L. Valeriote has made available a loan fund for students who are citizens of Third World countries, as defined by the United Nations, who are registered in a degree or diploma program and who demonstrate financial need. Apply to the International Student Advisor.

Uniroyal Ltd. Fund

A fund was established by Uniroyal Limited in 1972 to provide for students to attend the University.

University of Guelph Fund

The Board of Governors established in 1980 a loan fund of $25,000 to assist needy students to meet academic expenses not covered from normal financial resources. The interest rate is established at the time the loan is made, at the rate of interest in effect at that time for repayment of a C.S.L. through a chartered bank. Application is to be made to the Department of Agricultural Economics and Business.

Loans - Ontario Agricultural College

Students enrolled in programs of the Ontario Agricultural College who are in need of financial assistance, may make application to the Associate Registrar, Student Financial Services for a loan from one of the below-mentioned funds. Loans may be interest free until the maturity date (not later than 6 months following completion of the academic year in which the loan is received). Interest will be charged on any balance which remains outstanding beyond the maturity date, at the rate of interest in effect for the year in which the loan is made. The rate will be established at the time the loan is issued and will agree with the Canadian Chartered Banks’ prime lending rate in effect at that time. O.A.C. students should also check the availability of bursaries for which they may be eligible in the awards section for each degree program.

Mason Fund

In memory of the late H.C. Mason, a loan fund for freshman students in the Ontario Agricultural College has been established by F.W. Bray of Hamilton.

Massey Fund

Established in 1904 by W.H. Massey of Toronto for students enrolled in programs of the Ontario Agricultural College who are in need of financial assistance.

Quinn Memorial Loan Fund and Bursaries

In memory of Ronald J. Quinn, O.A.C.'35, Mrs. Helen Farquhar Quinn, O.A.C.'35, of London, Ontario, has established a loan fund from which O.A.C. students who are citizens of Third World countries as defined by the United Nations may borrow funds. Preference will be given to students who indicate an intention to return to their country of origin following graduation. Interest accumulated on the loan fund will be used to provide bursaries to students from Third World countries. Apply to the International Student Advisor.

Dr. J.L. Tennant Fund

Established in 1964 by the late Mabel Elizabeth Tennant in memory of her husband the late Dr. J.L. Tennant, this fund is restricted to students proceeding to an undergraduate or graduate degree in Agricultural Economics, Agricultural Business or Resource Economics and Rural Development. Regulations regarding this fund differ from the above funds in that the interest free period and the repayment period may be extended under certain circumstances. The interest rate is established at the time the loan is made, to agree with the rate in effect at that time for repayment of a C.S.L. through a chartered bank. Application is to be made to the Department of Agricultural Economics and Business.

Quinn Memorial Loan Fund and Bursaries

In memory of Ronald J. Quinn, O.A.C.'35, Mrs. Helen Farquhar Quinn, O.A.C.'35, of London, Ontario, has established a loan fund from which O.A.C. students who are citizens of Third World countries as defined by the United Nations may borrow funds. Preference will be given to students who indicate an intention to return to their country of origin following graduation. Interest accumulated on the loan fund will be used to provide bursaries to students from Third World countries. Apply to the International Student Advisor.

Dr. J.L. Tennant Fund

Established in 1964 by the late Mabel Elizabeth Tennant in memory of her husband the late Dr. J.L. Tennant, this fund is restricted to students proceeding to an undergraduate or graduate degree in Agricultural Economics, Agricultural Business or Resource Economics and Rural Development. Regulations regarding this fund differ from the above funds in that the interest free period and the repayment period may be extended under certain circumstances. The interest rate is established at the time the loan is made, to agree with the rate in effect at that time for repayment of a C.S.L. through a chartered bank. Application is to be made to the Department of Agricultural Economics and Business.

International Student Loan Fund

Mrs. Norma L. Valeriote has made available a loan fund for students who are citizens of Third World countries, as defined by the United Nations, who are registered in a degree or diploma program and who demonstrate financial need. Apply to the International Student Advisor.

Uniroyal Ltd. Fund

A fund was established by Uniroyal Limited in 1972 to provide for loans to students who have successfully completed one year of post-secondary education and who have a demonstrated interest in a career in either industry or education.

University of Guelph Fund

The Board of Governors established in 1980 a loan fund of $25,000 to assist needy students to meet academic expenses not covered from normal financial resources. Enquiries should be made at Student Financial Services, Level 3, University Centre. Loans may be interest free to the due date which is not to exceed 30 days beyond conclusion of the semester. Interest will be charged on any balance which remains outstanding beyond the maturity date, at the rate of interest in effect for the year in which the loan is made. The rate will be established at the time the loan is issued and will agree with the Canadian Chartered Banks’ prime lending rate in effect at that time. O.A.C. students should also check the availability of bursaries for which they may be eligible in the awards section for each degree program.

Mason Fund

In memory of the late H.C. Mason, a loan fund for freshman students in the Ontario Agricultural College has been established by F.W. Bray of Hamilton.

Massey Fund

Established in 1904 by W.H. Massey of Toronto for students enrolled in programs of the Ontario Agricultural College who are in need of financial assistance.

Quinn Memorial Loan Fund and Bursaries

In memory of Ronald J. Quinn, O.A.C.'35, Mrs. Helen Farquhar Quinn, O.A.C.'35, of London, Ontario, has established a loan fund from which O.A.C. students who are citizens of Third World countries as defined by the United Nations may borrow funds. Preference will be given to students who indicate an intention to return to their country of origin following graduation. Interest accumulated on the loan fund will be used to provide bursaries to students from Third World countries. Apply to the International Student Advisor.

Dr. J.L. Tennant Fund

Established in 1964 by the late Mabel Elizabeth Tennant in memory of her husband the late Dr. J.L. Tennant, this fund is restricted to students proceeding to an undergraduate or graduate degree in Agricultural Economics, Agricultural Business or Resource Economics and Rural Development. Regulations regarding this fund differ from the above funds in that the interest free period and the repayment period may be extended under certain circumstances. The interest rate is established at the time the loan is made, to agree with the rate in effect at that time for repayment of a C.S.L. through a chartered bank. Application is to be made to the Department of Agricultural Economics and Business.
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Bachelor of Applied Science (B.A.Sc.)

Program Information

The University of Guelph offers an 8 semester (20.00 credits) honours program leading to a Bachelor of Applied Science (B.A.Sc.) degree. Students must select one of the 3 following major areas of study:

- Applied Human Nutrition
- Child, Youth and Family
- Gerontology

Co-operative Education is available in the following programs:

- Child, Youth and Family
- Gerontology

Given the professional and applied character of the program, there are no minors associated with the degree. Selective offerings enable students to select courses which support or complement their primary field of study.

The program is interdisciplinary and provides a distinctive and integrated focus of applied social science in each of the 3 majors. Courses from the traditional disciplines in other departments in the University are coupled with courses offered by faculty members in the Department of Family Relations and Human Development whose own backgrounds reflect the interdisciplinary nature of the program.

Laboratory, practicum and field experiences enhance the students' opportunities to grasp the contributions of the social, physical and biological sciences to significant facets of human behaviour and experience, whether in family, community, or in educational settings.

Academic Counselling

Program Counselling

A B.A.Sc. program counsellor is available to assist prospective students in the selection of their major and initial courses, and to respond to questions regarding any other aspects of their anticipated program. The program counsellor will also assist in-course students who need information or advice about their program or other academic regulations, who seek information on services and resources available to students or who are contemplating transfer into or out of their current major or degree program.

Academic Advising

On entering the program, all students are assigned to a departmental advisor by major. Co-operative Education students in all majors are also assigned to an advisor. This advisor is thoroughly familiar with the academic requirements of the program and is also knowledgeable about career opportunities which relate to a student's specific major. Students are strongly encouraged to attend all meetings called by their departmental advisors, and to set up individual meetings with them when they have questions or concerns about their major, or their performance in the program.

Continuation of Study

Students are advised to consult the regulations for Continuation of Study which are outlined in detail in Section VIII—Undergraduate Degree Regulations & Procedures. Students in the B.A.Sc. program may repeat any failed course only once. Failure to successfully complete a required (core) credit on the second attempt results in the student not being permitted to continue in his/her major and/or program.

Conditions for Graduation

To qualify for the degree Bachelor of Applied Science, the student must satisfy the following conditions:

- the student must have successfully completed the schedule of studies requirements for the specified major
- the student must have a cumulative average of 60% or higher
- the student must have a term academic standing of Eligible to Continue or Continue on Probation

Schedule of Studies

Courses specified in the Schedule of Studies are required courses and must be completed successfully. A full course load normally includes 2.50 credits (normally 5 courses). The requirements for each major are set out below.

Special Expenses

Expenses for field trips can range from $20 to $30 per semester in the first 4 semesters and from $25 to $50 in each of the last 4 semesters. In certain courses modest expenses will be incurred for supplies and where appropriate for laboratory costs. According to recent Ontario legislation, agencies licensed by the Ministry of Community and Social Services which care for, or provide service to, children or vulnerable adults are required to do criminal reference checks on all their employees. Students enrolled in practica or field placement courses may be required to submit to the agency with which they are placed, personal information about any criminal convictions and pending criminal charges. The cost of acquiring this criminal reference check (Canadian Police Information Check) will be the responsibility of each student.

Applied Human Nutrition (AHN)

Department of Family Relations and Applied Nutrition, College of Social and Applied Human Sciences.

The Applied Human Nutrition major recognizes both the biological and the social facets of human nutrition. It focuses on nutrition from a preventive, maintenance and therapeutic perspective, all of which require a thorough understanding of the related biological sciences and of selected aspects of the behavioral sciences. Students learn about nutrition and its application to the maintenance of health and the prevention and treatment of disease. They also learn about individual and social behaviour, particularly in family settings, and the implications of behavioral factors in the establishment of good nutrition status from conception through to old age.

The B.A.Sc. Applied Human Nutrition program is accredited by the Dietitians of Canada.

All students in the Applied Human Nutrition major must include the core of 14.00 required and 1.50 restricted electives in the minimum of 20.00 passed credits. Students normally register for courses according to the semesters indicated below for Fall and Winter sequencing.

Those students wishing to compete for admission to a post-graduate dietetic internship will be assisted by departmental advisors in the selection of courses that will meet the academic requirement of the Dietitians of Canada and the College of Dietitians of Ontario for eligibility for internship and/or membership. Successful completion of the requirements will allow students to compete for a limited number of dietetic internship positions. Most graduates completing dietetic internships are employed in hospitals and other health care agencies such as community health centres and long-term care facilities. Others find employment in a wider range of vocations including those associated with health and education in the government or private sectors, or with the food industry. Still others proceed to graduate study in fields such as nutrition, public health nutrition, medicine or education.

Major

Semester 1

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Notes</th>
</tr>
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<tbody>
<tr>
<td>CHEM*1040</td>
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<td>General Chemistry I</td>
</tr>
<tr>
<td>HTM*2700</td>
<td>[0.50]</td>
<td>Introductory Foods</td>
</tr>
<tr>
<td>MIRC*1020</td>
<td>[0.50]</td>
<td>Fundamentals of Applied Microbiology</td>
</tr>
<tr>
<td>PSYC*1200</td>
<td>[0.50]</td>
<td>Dynamics of Behaviour</td>
</tr>
<tr>
<td>SOC*1100</td>
<td>[0.50]</td>
<td>Sociology</td>
</tr>
</tbody>
</table>

Note: Students who do not have standing in OAC Biology, or equivalent, must substitute BIOL*1020 for SOC*1100 in Semester 1. Semester 2 must include SOC*1100 if this substitution is made.

Semester 2

<table>
<thead>
<tr>
<th>Course</th>
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<tr>
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<td>General Chemistry II</td>
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<td>FRHD*1020</td>
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<td>Couple and Family Relationships</td>
</tr>
<tr>
<td>NUTR*1010</td>
<td>[0.50]</td>
<td>Nutrition and Society</td>
</tr>
<tr>
<td>PSYC*1100</td>
<td>[0.50]</td>
<td>Principles of Behaviour</td>
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Semester 3

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<tr>
<td>BIOC*2580</td>
<td>[0.50]</td>
<td>Introductory Biochemistry</td>
</tr>
<tr>
<td>HTM*2030</td>
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<td>Control Systems in the Hospitality and Tourism Industry</td>
</tr>
<tr>
<td>NUTR*2050</td>
<td>[0.50]</td>
<td>Family and Community Nutrition</td>
</tr>
<tr>
<td>STAT*2080</td>
<td>[0.50]</td>
<td>Introductory Applied Statistics I</td>
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<tr>
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<td></td>
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<tr>
<td>CIS*1200</td>
<td>[0.50]</td>
<td>Introduction to Computing</td>
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<td>COST*2020</td>
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<td>Information Management</td>
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Note: HTM*2030 may be taken in Semester 4.

Semester 4

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<td>Structure and Function in Biochemistry</td>
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<td>NUTR*3210</td>
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<td>Fundamentals of Nutrition</td>
</tr>
<tr>
<td>STAT*2090</td>
<td>[0.50]</td>
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Semester 5*

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<td>BIOM*3100</td>
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<td>Mammalian Physiology I</td>
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<tr>
<td>FRHD*3070</td>
<td>[0.50]</td>
<td>Research Methods - Family Studies</td>
</tr>
<tr>
<td>1.50 elective or restricted elective</td>
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* students planning to apply for a dietetic internship must take HTM*3090 in Semester 5 in place of elective or restricted elective

Semester 6

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<th>Credits</th>
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<td>Mammalian Physiology II</td>
</tr>
<tr>
<td>FRHD*3400</td>
<td>[0.50]</td>
<td>Communication and Counselling Skills</td>
</tr>
<tr>
<td>HTM*3000</td>
<td>[0.50]</td>
<td>Human Resources Management</td>
</tr>
<tr>
<td>NUTR*3040</td>
<td>[0.50]</td>
<td>Clinical Nutrition I</td>
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Note: HTM*3000 may be taken in Semester 7.

Semester 7

<table>
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<tbody>
<tr>
<td>NUTR*4010</td>
<td>[0.75]</td>
<td>Nutritional Assessment</td>
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</table>
NUTR*4040 [0.75] Clinical Nutrition II
NUTR*4070 [0.50] Nutrition Education
0.50 elective or restricted elective

Semester 8

NUTR*4900 [0.50] Selected Topics in Human Nutrition
2.00 electives or restricted electives

Note: With approval from the instructor, students may substitute NUTR*4810 and NUTR*4910 for NUTR*4900.

Restricted Electives

In addition to the 14.00 required credits listed above, students must take 1.50 restricted electives, including one 3000 level course, from the following list:

FOOD*2010 [0.50] Principles of Food Science
FOOD*2410 [0.50] Introduction to Food Processing
FOOD*2420 [0.50] Introduction to Food Microbiology
FOOD*3010 [0.50] Food Chemistry
FOOD*3020 [0.50] Food Chemistry Laboratory
FOOD*3230 [0.75] Food Microbiology
FOOD*3700 [0.50] Sensory Evaluation of Foods
HTM*2740 [0.50] Cultural Aspects of Food
HTM*3780 [0.50] Economics of Food Usage

Electives

There are 4.50 electives throughout the major which may be fulfilled by electing courses in any subject provided that the student has the prerequisite courses and can schedule them. Some electives and restricted elective courses are intended to contribute to a liberal education, while others permit students to work toward specific academic and career goals. Departmental advisors will assist students in selection of courses that will meet the requirements of the Dietitians of Canada for eligibility for Internship and/or membership, and when requested, can assist in selection of electives to complement the core requirements.

Courses in different departments which complement the major and which may be taken as electives include:

AGR*1250 [0.50] Agrifood System Trends and Issues
AGRI*3200 [0.50] Introduction to Marketing Management
MBG*1000 [0.50] Genetics and Society
NUTR*3330 [0.50] Micronutrients, Phytochemicals and Health
NUTR*4200 [0.50] Nutrition and Immune Function
NUTR*4210 [0.50] Nutrition, Exercise and Energy Metabolism
NUTR*4850 [0.50] Field Experience in Nutrition Education
PHIL*2030 [0.50] Philosophy of Medicine

Child, Youth and Family (CYF)

Department of Family Relations and Applied Nutrition, College of Social and Applied Human Sciences.

The Child, Youth and Family major, administered by the Department of Family Relations and Applied Nutrition, examines the psychological, social and physical conditions which influence the growth and development of children and adolescents. While the primary focus of the major is on children and youth, the program regards the family as a primary context of development and as the key to successful interventions for children with developmental, behavioural, or socio-emotional difficulties. Through the effective use of elective courses, the core requirements in the major can be supplemented to create a program of study which will prepare graduate as for a variety of careers in child and youth services.

Articulation Agreements

The University of Guelph is a partner in several Articulation Agreements concerning the Child, Youth and Family major. Students who enter the B.A.Sc. Child, Youth and Family major with advanced standing through an articulation agreement should identify themselves to the B.A.Sc. Program Counsellor for specific guidance around their Schedule of Studies (see Section IV of this calendar).

Students in the Child, Youth and Family major who are interested in proceeding to teachers college should refer to Section IV—Admissions Information, Articulation Agreements for information about admission to the Bachelor of Education program at Nipissing University.

Program Requirements

All students in the Child, Youth and Family major must include the following core of 1.50 required credits and 1.00 restricted electives to a minimum of 20.00 passed credits. Students are encouraged to plan their use of electives carefully in order to focus their program on one or a combination of the career options open to graduates. Discussion with a departmental advisor regarding the various choices possible from within the major is strongly recommended. Students will normally register for courses according to the semesters indicated below for Fall and Winter sequencing. Students who register for Summer semesters and other students for whom the semester offerings present difficulty may, where they have the approval of their departmental advisor, take some courses in alternative semesters.

Major

Semester 1

MBG*1000 [0.50] Genetics and Society
PSYC*1200 [0.50] Dynamics of Behaviour
0.50 elective

One of:

ANTH*1150 [0.50] Anthropology
SOC*1100 [0.50] Sociology

One of:

ENGL*1200 [0.50] Reading the Contemporary World
FREN*1200 [0.50] French Language I

Note: BIOL*1020 must be taken in Semester 1 if the student does not have OAC Biology equivalent.

Semester 2

FRHD*1020 [0.50] Couple and Family Relationships
FRHD*2260 [0.50] Infant Development
NUTR*1010 [0.50] Nutrition and Society
PSYC*1100 [0.50] Principles of Behaviour
0.50 elective

Semester 3

BIOM*2000 [0.50] Concepts of Physiology
FRHD*2100 [0.50] Development of Human Sexuality
FRHD*2270 [0.50] Development in Early and Middle Childhood
STAT*2080 [0.50] Introductory Applied Statistics I
0.50 elective

Semester 4

FRHD*2060 [0.50] Adult Development and Aging
FRHD*2110 [0.50] Exceptional Children and Youth
FRHD*2280 [0.50] Adolescent Development
STAT*2090 [0.50] Introductory Applied Statistics II

One of:

FRHD*2040 [0.50] Principles of Program Design for Children
FRHD*2300 [0.50] Principles of Program Design for Youth

Semester 5

FRHD*3040 [0.50] Parenting: Research and Applications
FRHD*3070 [0.50] Research Methods - Family Studies
FRHD*3150 [0.50] Strategies for Behaviour Change
FRHD*3200 [1.00] Practicum--Child, Youth and Family I

Semester 6

FRHD*3120 [0.50] Families in Canadian Context
FRHD*3180 [0.50] Observation and Assessment
FRHD*3400 [0.50] Communication and Counselling Skills
1.00 electives

Semester 7

FRHD*4170 [1.00] Practicum--Child, Youth and Family II
FRHD*4310 [0.50] Professional Issues

1.00 electives or restricted electives

Semester 8

FRHD*4320 [0.50] Social Policies for Children, Youth and Families
2.00 electives or restricted electives

Restricted Electives

In addition to the 14.50 required credits, 1.00 must be taken from the Department of Family Relations and Applied Nutrition at the 4000 level.

Electives - Recommended and Program Options

Child and Youth Services

Students who intend to pursue a career in child and youth services may wish to choose electives from the following list:

FRHD*3090 [0.50] Child and Family Poverty
FRHD*3190 [0.50] Administration of Programs for Children and Youth
FRHD*4020 [0.50] Family Theory
FRHD*4180 [0.50] Assessment and Intervention
FRHD*4200 [0.50] Issues in Human Sexuality
FRHD*4400 [0.50] Youth, Risk and Resilience
FRHD*4810 [0.50] Thesis I
FRHD*4910 [1.00] Thesis II
NUTR*2050 [0.50] Family and Community Nutrition
PSYC*3440 [0.50] Cognitive Development
PSYC*3450 [0.50] Social and Personality Development
PSYC*3710 [0.50] Psychology of Learning Difficulties and Disabilities I
PSYC*3720 [0.50] Psychology of Learning Difficulties and Disabilities II
PSYC*3850 [0.50] Intellectual Disabilities

2005-2006 University of Guelph Undergraduate Calendar

Last Revision: October 18, 2005
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>REXT*3100</td>
<td>0.50</td>
<td>Teaching and Learning in Non-Formal Education</td>
</tr>
<tr>
<td>SOAN*2290</td>
<td>0.50</td>
<td>Identities and Cultural Diversity</td>
</tr>
<tr>
<td>SOC*1500</td>
<td>0.50</td>
<td>Crime and Criminal Justice</td>
</tr>
<tr>
<td>SOC*2070</td>
<td>0.50</td>
<td>Social Deviance</td>
</tr>
<tr>
<td>SOC*3040</td>
<td>0.50</td>
<td>Sociology of Social Welfare</td>
</tr>
<tr>
<td>SOC*3710</td>
<td>0.50</td>
<td>Young Offenders</td>
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</table>

**Early Childhood Education**

Students who intend to pursue a career in early childhood education may wish to choose electives from the following list:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>DRMA*2400</td>
<td>0.50</td>
<td>Theatre for Young Audiences</td>
</tr>
<tr>
<td>ENGL*2740</td>
<td>0.50</td>
<td>Children's Literature</td>
</tr>
<tr>
<td>FRHD*3090</td>
<td>0.50</td>
<td>Child and Family Poverty</td>
</tr>
<tr>
<td>FRHD*3190</td>
<td>0.50</td>
<td>Administration of Programs for Children and Youth</td>
</tr>
<tr>
<td>FRHD*4180</td>
<td>0.50</td>
<td>Assessment and Intervention</td>
</tr>
<tr>
<td>FRHD*4210</td>
<td>0.50</td>
<td>Senior Seminar in Early Education and Care</td>
</tr>
<tr>
<td>FRHD*4810</td>
<td>0.50</td>
<td>Thesis I</td>
</tr>
<tr>
<td>FRHD*4910</td>
<td>1.00</td>
<td>Thesis II</td>
</tr>
<tr>
<td>NUTR*2050</td>
<td>0.50</td>
<td>Family and Community Nutrition</td>
</tr>
<tr>
<td>PSYC*3710</td>
<td>0.50</td>
<td>Psychology of Learning Difficulties and Disabilities I</td>
</tr>
<tr>
<td>PSYC*3720</td>
<td>0.50</td>
<td>Psychology of Learning Difficulties and Disabilities II</td>
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<td>PSYC*3850</td>
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<td>Intellectual Disabilities</td>
</tr>
<tr>
<td>SOAN*2290</td>
<td>0.50</td>
<td>Identities and Cultural Diversity</td>
</tr>
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</table>

**Education - Primary / Junior / Intermediate**

Graduates interested in elementary school teaching need an additional year of study at a Faculty of Education. For those who wish to teach primary (junior kindergarten to grade 3) or junior (grades 4 to 6), each faculty of education may have certain required courses for admission. Often recommended are courses in visual or performing arts, mathematics, languages, physical or natural sciences, history or geography. Students interested in intermediate (grades 7 to 10) level teaching need to acquire a teachable subject in a specific discipline. Normally, this requires six semester courses in an area of concentration. **Students are strongly advised to contact the Faculties of Education that interest them early in their programs to determine the specific requirements.**

**Graduate and Professional Studies**

Students have successfully used the B.A.Sc. degree to gain admission into graduate programs in social work, applied psychology, sociology, anthropology, occupational therapy, speech and language, and social policy. If you plan to enter a graduate program after completing the Child, Youth and Family major of the B.A.Sc. degree program you will need to select certain courses as part of your undergraduate program to meet graduate program admission requirements. Sometimes these requirements are quite particular which means that you must plan your course selections early and carefully.

Although graduate programs differ in their entrance requirements, most graduate programs require that you have taken (at least): one course in research methods; two undergraduate statistics courses; and have completed an undergraduate thesis. For many of the programs you will be required to take Graduate Record Exams (GREs) in the specific field of study. **You are strongly advised to contact the graduate programs that interest you early in your program to determine the specific entrance requirements of each program.**

**Child, Youth and Family (Co-op) (CYF:C)**

Department of Family Relations and Applied Nutrition, College of Social and Applied Human Sciences.

The first four semesters are as for the students in the regular program. Students in the co-op program must also complete COOP*1100 in the second academic semester. Thereafter the schedule is as follows:

**Summer Semester**

<table>
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<tr>
<th>Course Code</th>
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<tr>
<td>COOP*1000</td>
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**Semester 5 - Fall**

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<tr>
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<td>Parenting: Research and Applications</td>
</tr>
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<td>FRHD*3070</td>
<td>0.50</td>
<td>Research Methods - Family Studies</td>
</tr>
<tr>
<td>FRHD*3150</td>
<td>0.50</td>
<td>Strategies for Behaviour Change</td>
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<tr>
<td>FRHD*3200</td>
<td>1.00</td>
<td>Practicum--Child, Youth and Family I</td>
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**Winter Semester**

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<tr>
<td>COOP*2000</td>
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<td>Co-op Work Term II</td>
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**Semester 6 - Summer**

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<td>Communication and Counselling Skills</td>
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**Fall Semester**

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**Semester 7 - Winter**

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<td>FRHD*3120</td>
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<td>Families in Canadian Context</td>
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<td>FRHD*3180</td>
<td>0.50</td>
<td>Observation and Assessment</td>
</tr>
<tr>
<td>FRHD*4320</td>
<td>0.50</td>
<td>Social Policies for Children, Youth and Families</td>
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<table>
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<td>FRHD*4061</td>
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<td>Family and Community: Field Placement</td>
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<td>FRHD*4160</td>
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<td>Family Relations in Gerontology</td>
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<td>FRHD*4190</td>
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<td>Assessment in Gerontology</td>
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**Semester 8 - Fall**

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<td>FRHD*4170</td>
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<tr>
<td>FRHD*4310</td>
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<td>Professional Issues</td>
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1.00 electives or restricted electives

**Electives and Restricted Electives**

Electives and restricted electives as for the regular program.

**Gerontology (GERN)**

Department of Family Relations and Applied Nutrition, College of Social and Applied Human Sciences.

The Gerontology major is designed to provide students with an appreciation of the aged and the aging experience from social, psychological, and biological perspectives. The major places this study within the broader framework of life span human development and dynamics of functioning in a variety of social contexts. A focus on basic knowledge of aging as well as the application of that knowledge is reflected in required courses and suggested electives.

Students enrolled in the Gerontology major study aging within the perspective of the family. This approach provides the student with a broad, applied social science education as well as a fully integrated package of aging related courses. Students graduate with a degree leading to a variety of professional career opportunities in the human service, education, mental health, life skills support and counselling, and social policy fields. Our graduates also may pursue graduate study in family studies, human development, or one of the base social science disciplines. All students in the Gerontology Major must complete a minimum of 20.00 credits including the core of 15.00 required credits as outlined in the Schedule of Studies. In addition to these core requirements, there are many courses in various departments throughout the University which may be taken as electives. A list of suggested electives follows the description of required courses.

**Major**

**Semester 1**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>COST*1800</td>
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<td>Housing and Community Planning</td>
</tr>
<tr>
<td>FRHD*1010</td>
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<td>Human Development</td>
</tr>
<tr>
<td>PSYC*1200</td>
<td>0.50</td>
<td>Dynamics of Behaviour</td>
</tr>
<tr>
<td>SOC*1100</td>
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One of:

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<tr>
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<tbody>
<tr>
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<td>Reading the Contemporary World</td>
</tr>
<tr>
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<td>French Language I</td>
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**Semester 2**

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<tbody>
<tr>
<td>FRHD*1020</td>
<td>0.50</td>
<td>Couple and Family Relationships</td>
</tr>
<tr>
<td>FRHD*2060</td>
<td>0.50</td>
<td>Adult Development and Aging</td>
</tr>
<tr>
<td>NUTR*1010</td>
<td>0.50</td>
<td>Nutrition and Society</td>
</tr>
<tr>
<td>PSYC*1100</td>
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<td>Principles of Behaviour</td>
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</table>

0.50 elective*  
* elective in Semester 2 must be BIOL*1020 if the student does not have standing in OAC Biology or equivalent

**Semester 3**

<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>NUTR*2050</td>
<td>0.50</td>
<td>Family and Community Nutrition</td>
</tr>
<tr>
<td>POLS*1400</td>
<td>0.50</td>
<td>Public Management and Administration</td>
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<tr>
<td>STAT*2080</td>
<td>0.50</td>
<td>Introductory Applied Statistics I</td>
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One of:

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</tr>
</thead>
<tbody>
<tr>
<td>BIOM*2000</td>
<td>0.50</td>
<td>Concepts of Physiology</td>
</tr>
<tr>
<td>MBG*1000</td>
<td>0.50</td>
<td>Genetics and Society</td>
</tr>
<tr>
<td>PSYC*2410</td>
<td>0.50</td>
<td>Behavioural Neuroscience I</td>
</tr>
<tr>
<td>0.50 elective*</td>
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**Semester 4**

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<tr>
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<tr>
<td>COST*2100</td>
<td>0.50</td>
<td>Personal Financial Management</td>
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<tr>
<td>STAT*2090</td>
<td>0.50</td>
<td>Introductory Applied Statistics II</td>
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</table>

1.00 elective

One of:

<table>
<thead>
<tr>
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<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CIS*1000</td>
<td>0.50</td>
<td>Introduction to Computer Applications</td>
</tr>
<tr>
<td>CIS*1200</td>
<td>0.50</td>
<td>Introduction to Computing</td>
</tr>
<tr>
<td>COST*2020</td>
<td>0.50</td>
<td>Information Management</td>
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</table>

**Semester 5**

<table>
<thead>
<tr>
<th>Course Code</th>
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<th>Course Title</th>
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<tbody>
<tr>
<td>FRHD*3060</td>
<td>0.50</td>
<td>Principles of Social Gerontology</td>
</tr>
<tr>
<td>FRHD*3070</td>
<td>0.50</td>
<td>Research Methods - Family Studies</td>
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1.50 electives

**Semester 6**

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</thead>
<tbody>
<tr>
<td>FRHD*3120</td>
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<td>Families in Canadian Context</td>
</tr>
<tr>
<td>FRHD*3400</td>
<td>0.50</td>
<td>Communication and Counselling Skills</td>
</tr>
<tr>
<td>HTM*3000</td>
<td>0.50</td>
<td>Human Resources Management</td>
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1.00 elective

**Semester 7**

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</thead>
<tbody>
<tr>
<td>FRHD*4061</td>
<td>1.00</td>
<td>Family and Community: Field Placement</td>
</tr>
<tr>
<td>FRHD*4160</td>
<td>0.50</td>
<td>Family Relations in Gerontology</td>
</tr>
<tr>
<td>FRHD*4190</td>
<td>0.50</td>
<td>Assessment in Gerontology</td>
</tr>
</tbody>
</table>
Courses in different departments which complement the major and which may be taken as electives include:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Course Name</th>
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</thead>
<tbody>
<tr>
<td>BIOM*4050</td>
<td>0.50</td>
<td>Biomedical Aspects of Aging</td>
</tr>
<tr>
<td>COST*1000</td>
<td>0.50</td>
<td>Introduction to Marketing Management</td>
</tr>
<tr>
<td>COST*2810</td>
<td>0.50</td>
<td>Social Aspects of Housing</td>
</tr>
<tr>
<td>COST*3040</td>
<td>0.50</td>
<td>Business and Consumer Law</td>
</tr>
<tr>
<td>EDRD*3500</td>
<td>0.50</td>
<td>Recreation and Tourism Planning</td>
</tr>
<tr>
<td>ENGL*2840</td>
<td>0.50</td>
<td>Literature and Aging</td>
</tr>
<tr>
<td>FRHD*4810</td>
<td>0.50</td>
<td>Thesis I</td>
</tr>
<tr>
<td>FRHD*4910</td>
<td>1.00</td>
<td>Thesis II</td>
</tr>
<tr>
<td>HIST*2800</td>
<td>0.50</td>
<td>The History of the Modern Family</td>
</tr>
<tr>
<td>PSYC*3570</td>
<td>0.50</td>
<td>The Psychology of Death and Dying</td>
</tr>
</tbody>
</table>

Note: Students intending to apply for admission to a graduate program should include among their electives both FRHD*4810 and FRHD*4910.

**Gerontology (Co-op) (GERN:C)**

Department of Family Relations and Applied Nutrition, College of Social and Applied Human Sciences.

The first four semesters are as for students in the regular program. Students in the Co-op program must also complete COOP*1100 in the second semester. Thereafter, the schedule is:

**Summer Semester**

- COOP*1000 [0.00] Co-op Work Term I

**Semester 5 - Fall**

- FRHD*3060 [0.50] Principles of Social Gerontology
- FRHD*3070 [0.50] Research Methods - Family Studies
- 1.50 elective

**Winter Semester**

- COOP*2000 [0.00] Co-op Work Term II

**Semester 6 - Summer**

- FRHD*3400 [0.50] Communication and Counselling Skills
- 2.00 elective

**Fall Semester**

- COOP*3000 [0.00] Co-op Work Term III

**Semester 7 - Winter**

- FRHD*3120 [0.50] Families in Canadian Context
- FRHD*4260 [0.50] Social Policy and Gerontology
- HTM*2200 [0.50] Organizational Behaviour I
- HTM*3000 [0.50] Human Resources Management
- 0.50 elective

**Semester 8 - Fall**

- FRHD*4160 [0.50] Family Relations in Gerontology
- FRHD*4190 [0.50] Assessment in Gerontology
- FRHD*4250 [0.50] Aging and Health
- 1.00 electives

**Restricted Electives and Electives**

As for the regular program.
Bachelor of Arts (B.A.)

The University of Guelph offers general and honours programs leading to the B.A. degree. The General Program consists of a minimum of 15.00 credits requiring the equivalent of 6 semesters of successful full time study. The Honours Program consists of a minimum of 20.00 credits requiring the equivalent of 8 semesters of successful full time study. A student may register in Summer, Fall and Winter semesters. The normal course load is 2.50 credits per semester for a full time student on regular status. Students may register for 0.50 credit more at their own discretion. Part time study consists of 1.50 credits or fewer per semester.

Program Information

A student's selection of courses must follow the B.A. Program Regulations (including Distribution Requirements), a pattern of study for either the General or Honours degree (below), and the detailed schedule(s) of studies which follow for any special subject(s) studied.

In fulfilling distribution requirements a) and b) students must in semester 1 choose 2 courses from 2 different schools or departments in the College of Arts and 2 courses from 2 of the following departments in the College of Social and Applied Human Sciences: Economics, Geography, Political Science, Psychology, Sociology and Anthropology. Students entering the B.A. program with advanced standing must complete the distribution requirements a) and b) as soon as possible after entrance to the program. Requirement c) need not be completed immediately but is a graduation requirement.

Note: Courses taken to satisfy the distribution requirements may also be counted toward a specialization in the general or honours program.

Academic Counselling

Program Counselling

Students are urged to seek the assistance of the counsellors in the B.A. Counselling Office regarding their program and academic regulations, selecting courses, services and resources available on campus, and when they are experiencing difficulties that affect their academic progress.

Departmental Advising

Every academic department has advisors available to assist students in their course selection planning. Students should seek the advice of the departmental advisor when declaring a major, area of concentration, or minor, regarding course scheduling and completing the requirements for the specializations. Students encountering difficulties within a course should first consult the instructor of the course. Co-operative education students in Computing and Information Science, Economics and Psychology will also have a departmental Co-op Academic Advisor and Co-ordinator, and should consult Co-operative Education Services regarding scheduling work terms and the COOP*1000 course.

Academic Residence Requirements

1. At least 5.00 of the credits required for graduation by the student's program must be taken at the University of Guelph.
2. At least 60% of the 3000 and 4000 level courses required for graduation must be taken at the University of Guelph.

University of Guelph courses include courses taken on exchange and on study abroad programs. Letter of Permission courses are not included.

Continuation of Study

Students are advised to consult the regulations for continuation of study within the program which are outlined in detail in Section VIII--Undergraduate Degree Regulations and Procedures of this calendar.

Conditions for Graduation

In addition to meeting the general and honours degree requirements listed below Program Regulations, students will not normally be eligible to graduate while on probationary or required-to-withdraw status.

Distribution Requirements

The distribution requirements are designed to provide the student with exposure to and some understanding of a range of disciplines in the Arts, Social Sciences and Mathematical and Natural Sciences.

The distribution requirement of 8 courses (minimum 4.00 credits) is as follows:

A. A minimum of 1.50 credits per semester for at least 2 different subject areas in the College of Arts:

- ARTH Art History
- CLAS Classical Studies
- DRMA Drama
- ENGL English
- EURO European Studies
- FREN French Studies
- GERM German Studies
- GREK Greek
- HIST History
- HUMN Humanities
- ITAL Italian Studies
- LAT Latin
- LING Linguistics
- MUSC Music
- PHIL Philosophy
- SART Studio Art
- SPAN Spanish Studies
- WMST Women's Studies

B. A minimum of 1.50 credits over at least two of the following subject areas in the College of Social and Applied Human Sciences:

- ANTH Anthropology
- ECON Economics
- GEOG Geography
- IDEV International Development
- ISS Interdisciplinary Social Science
- POLS Political Science
- PSYC Psychology
- SOAN Sociology and Anthropology
- SOC Sociology
- WMST Women's Studies

C. 1.00 credit in natural and/or mathematical sciences from the list below.

Natural and Mathematical Science Courses Acceptable for B.A. Distribution Requirements

Students must take 1.00 credit in natural and/or mathematical science courses to fulfill the B.A. science requirements. Students should choose their courses from the list below or any course for which those listed serve as prerequisites. Students are advised to fulfill this requirement before their final semester. Any problems related to this requirement should be discussed with a B.A. Program Counsellor.

Courses recommended for students with limited preparation (e.g. lacking OAC credit in a specific area):

- BIOL*1000 [0.50] Introduction to Biology
- BIOL*1120 [0.50] Environment and Human Health
- BIOM*2000 [0.50] Concepts of Physiology
- BOT*1200 [0.50] Plants and Human Use
- CHEM*1060 [0.50] Introductory Chemistry
- CHEM*1100 [0.50] Chemistry Today
- CIS*1000 [0.50] Introduction to Computer Applications
- COST*2020 [0.50] Information Management
- ENVB*2210 [0.50] Introductory Agriculture
- GEOG*1350 [0.50] Earth: Hazards and Global Change
- GEOL*1100 [0.50] Principles of Geology
- MATH*1050 [0.50] Introduction to Mathematical Modeling
- MBG*1000 [0.50] Genetics and Society
- MET*1000 [0.50] The Atmospheric Environment
- MICR*1010 [0.50] The Microbial World
- PHYS*1600 [0.50] Contemporary Astronomy
- PHYS*1810 [0.50] Physics of Music
- SOIL*2010 [0.50] Soil Science
- ZOO*1500 [0.50] Humans in the Natural World - a Zoological Perspective

Courses available for students with adequate preparation (e.g. Grade 12 in the discipline or its equivalent):

- BIOL*1040 [0.50] Biology I
- BIOL*1040 [0.50] Biology II
- CHEM*1040 [0.50] General Chemistry I
- CIS*1XXX [0.50] Any CIS course at the 1000 level
- GEOG*1300 [0.50] Introduction to the Biophysical Environment
- HK*2XXX [0.00] Any HK course at the 2000 level
- MATH*1XXX [0.00] Any MATH course at the 1000 level
- MET*2030 [0.50] Meteorology and Climatology
- MUSC*1090 [0.50] Physics of Music
- PHYS*1XXX [0.00] Any PHYS course at the 1000 level
- STAT*2XXX [0.00] Any STAT course at the 2000 level

Double Counting of Courses

A maximum of 50% of the courses in a second major or minor may be courses taken in fulfillment of the first major where required courses are the same. Double counting is not allowed in the General Program.

Program Regulations

The General Degree Program provides the opportunity for a sound general education in the arts and social sciences, mathematics and sciences, while allowing for concentration of studies in one or more subjects.
The Honours Degree Program provides depth of study in one specialization, strengthening written and oral communication skills, research and analytical abilities, as well as ensuring a breadth of study in the arts, social sciences, mathematics and sciences.

**General Degree Requirements (B.A.)**

To graduate from a general program a student must:

a. earn 15.00 credits. These must include courses that fulfill the distribution requirements (see below). At least 4.00 credits must be at the 3000 level or above. Not more than 6.00 credits at the introductory (1000) level may be counted towards the 15.00 credit requirement.

b. 9.00 of the required 15.00 credits must be in courses offered by the College of Arts, the departments of Economics, Geography, Political Science, Psychology, Sociology and Anthropology (in the College of Social and Applied Human Sciences), the Department of Computing and Information Science, or the Department of Mathematics and Statistics.

c. no more than 11.00 credits in any one subject or discipline, as indicated by the course prefix code, can be counted towards a general degree.

While students are encouraged to complete the requirements of one or more areas of concentration, this is not a graduation requirement.

The requirements for each area of concentration are set out separately in the pages following the list of Honours and General Specializations Available in the B.A. Degree.

**Honours Degree Requirements (B.A.H.)**

To graduate from an honours program a student must:

a. earn 20.00 credits. These must include courses that fulfill the distribution requirements (see below), and courses that fulfill the requirements of at least 1 major. At least 7.00 credits must be at the 3000 level or above. Not more than 6.00 credits from courses at the introductory (1000) level may be counted towards the 20.00 credit requirement.

b. fulfillment of course and credit requirements of at least one major with a cumulative average of at least 70% in all course attempts at the University of Guelph in that major. Grades in all courses in the discipline area of the major are included in the cumulative average. Grades from those courses in other disciplines listed as options toward the major are also included in the average. (This condition does not apply to majors in the interdisciplinary programs of International Development and European Studies, where only courses in the core and chosen area of emphasis will be counted toward the specialization average.) Students may take more than one major. They may also take one or more minors. The 70% requirement applies to each major and minor.

c. no more than 14.00 credits in any one subject or discipline, as indicated by the course prefix code, can be counted towards an Honours Degree.

The requirements for each major and minor are set out separately in the pages following the list of Honours and General Specializations Available in the B.A. Degree.

University recognition that a student has graduated with a particular major or minor requires a cumulative average of 70% for all course attempts at this University in that major or minor.

Students failing to meet the graduation requirements of the Honours Program may apply to graduate with a General Degree if the requirements for the General Degree are met. Students should note that a specialization is not required to graduate with a General Degree.

Honours B.A. students, except those doing a major in Computing and Information Science, Mathematics or Statistics, must take a minimum of 12.00 credits from either or both of the departments in the College of Arts and the departments of Economics, Geography, Political Science, Psychology, Sociology and Anthropology (in the College of Social and Applied Human Sciences).

**Semester One Requirements**

Students in the General and Honours Programs must take:

**Semester 1**

1.00 credit from the following:

- **Art History** - ARTH*1220, ARTH*1510
- **Classical Studies** - CLAS*1000
- **Drama** - DRMA*1000, DRMA*1050, DRMA*1090, DRMA*1500
- **English** - ENGL*1080, ENGL*1200
- **European Studies** - EURO*1050, EURO*1200
- **French Studies** - FREN*1000, FREN*1200
- **German Studies** - GERM*1100, GERM*1110, GERM*2490 (OAC Required)
- **Greek** - GREK*1100
- **History** - HIST*1010, HIST*1150, HIST*1250
- **Italian Studies** - ITAL*1060
- **Latin** - LAT*1100
- **Music** - MUSC*1060, MUSC*1120, MUSC*1180, MUSC*1500
- **Philosophy** - PHIL*1000, PHIL*1010, PHIL*1050
- **Studio Art** - SART*1050, SART*1060
- **Spanish Studies** - SPAN*1100, SPAN*1110

**Women's Studies** - WMST*1000

**PLUS**

1.00 credit from the following:

- **Anthropology** - ANTH*1150
- **Economics** - ECON*1050
- **Geography** - GEOG*1150, GEOG*1220, GEOG*1300
- **Political Science** - POLS*1150, POLS*1400, POLS*1500
- **Psychology** - PSYC*1100, PSYC*1200
- **Sociology** - SOC*1100, SOC*1500

**Women's Studies** - WMST*1000

**Study at Other Universities**

Students contemplating study at another university for credit towards a Bachelor of Arts degree at the University of Guelph should refer to the general regulations governing Letters of Permission in Section VIII—Degree Regulations & Procedures in this calendar.

Students must obtain approval for the Letter of Permission prior to undertaking studies at another institution. Approval of the request depends on good standing in the program with a minimum average of 60%.

The normal limit of credits taken on a Letter of Permission is 2.50 based on Guelph credits.

Students with a specialization in languages who want to undertake a program of study in Quebec or abroad should consult the appropriate departmental advisor or the Director of the School of Languages and Literatures.

**Special Study Option**

**London Study Semester**

A special program of studies designed to make use of the uniquely rich resources of London, England, is offered as a regular part of the B.A. program every Fall semester.

The program is supervised by a faculty member from Guelph who directs the studies in London and supervises correspondence with faculty in Guelph. Courses in London are of 2 kinds: London based courses and correspondence courses. London based courses in music, theatre and fine art are given by British tutors, and the coordinator offers courses in his/her area of interest. Students are also permitted to arrange correspondence courses to meet their particular needs. Students wishing to apply for the London Semester should have good academic standing and should have completed at least 2 semesters at the University of Guelph at the time of application; although preference will be given to those with a cumulative average of 70% or above, all applications will be given careful consideration. More detailed information about academic requirements, bursaries, courses, etc. can be obtained from the B.A. Program Counselling Office, Room 130 in the MacKinnon Building.

**Honours and General Specializations Available in the B.A. Degree**

**General Program Areas of Concentration**

- **Anthropology**
- **Computing and Information Science**
- **Drama**
- **Economics**
- **English**
- **French Studies**
- **Geography**
- **History**
- **International Development**
- **Mathematics**
- **Music**
- **Philosophy**
- **Political Science**
- **Sociology**
- **Spanish**
- **Statistics**
- **Women's Studies**

The schedule of studies for each area of concentration is given on the following pages under its subject heading.

**Honours Program Majors**

- **Agricultural Economics**
- **Anthropology**
- **Applied Economics**
- **Art History**
- **Classical Languages**
- **Classical Studies**
- **Computing and Information Science**
- **Criminal Justice and Public Policy**
Drama
Economics*
English
European Studies
French Studies
Geography
History
Individual Studies
Information Systems and Human Behaviour
International Development
Mathematical Economics
Mathematics
Music
Philosophy
Political Science
Psychology*
Rural and Development Sociology
Sociology
Spanish
Statistics
Studio Art
Women's Studies

Subjects marked with an asterisk (*) may be available as Co-operative Education programs. The schedule of studies for each major is given on the following pages under its subject heading.

Honours Program Minors
Anthropology
Art History
Art Theory and Criticism
Business Administration
Classical Languages
Classical Studies
Cognitive Neuropsychology
Computing and Information Science
Criminal Justice and Public Policy
Developmental Psychology
Drama
Economics
Educational Psychology
English
Environmental Studies
Family and Child Studies
French Studies
Geography
German
History
International Development
Italian
Marketing Management
Mathematics
Museum Studies
Music
Organizational Behaviour
Philosophy
Political Science
Rural Extension Studies
Social Psychology
Sociology
Spanish
Statistics
Studio Art
Visual Arts of the Americas
Women's Studies

The schedule of studies for each minor is given on the following pages under its subject heading.

Agricultural Economics (AGEC)

Department of Agricultural Economics and Business, Ontario Agricultural College.
The study of agricultural economics prepares students for careers as economic analysts in the agrifood sector and in public agencies. In addition, this major provides excellent background for those students planning to do graduate work in agricultural and resource economics and other fields of applied economics.

Agricultural Economics is offered as a major in the honours program. A detailed program planning guide is available in the Department of Agricultural Economics and Business.

Major (Honours Program)
A minimum of 9.50 credits, consisting of the 15 courses specified below plus 4 restricted electives, is required, including:

<table>
<thead>
<tr>
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<th>Credits</th>
<th>Description</th>
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<tbody>
<tr>
<td>AGEC*2220</td>
<td>[0.50]</td>
<td>Financial Accounting</td>
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<tr>
<td>AGEC*2700</td>
<td>[0.50]</td>
<td>Survey of Natural Resource Economics</td>
</tr>
<tr>
<td>AGEC*3030</td>
<td>[0.50]</td>
<td>The Firm and Markets</td>
</tr>
<tr>
<td>AGEC*4000</td>
<td>[0.50]</td>
<td>Agricultural and Food Policy</td>
</tr>
<tr>
<td>AGEC*4500</td>
<td>[0.50]</td>
<td>Decision Science</td>
</tr>
<tr>
<td>AGR*1110</td>
<td>[0.50]</td>
<td>Introductory Agrifood System</td>
</tr>
<tr>
<td>AGR*1250</td>
<td>[0.50]</td>
<td>Agrifood System Trends and Issues</td>
</tr>
<tr>
<td>ECON*1050</td>
<td>[0.50]</td>
<td>Introductory Microeconomics</td>
</tr>
<tr>
<td>ECON*1100</td>
<td>[0.50]</td>
<td>Introductory Macroeconomics</td>
</tr>
<tr>
<td>ECON*2310</td>
<td>[0.50]</td>
<td>Intermediate Microeconomics</td>
</tr>
<tr>
<td>ECON*2410</td>
<td>[0.50]</td>
<td>Intermediate Macroeconomics</td>
</tr>
<tr>
<td>ECON*2770</td>
<td>[0.50]</td>
<td>Introductory Mathematical Economics</td>
</tr>
<tr>
<td>ECON*3600</td>
<td>[0.50]</td>
<td>Macroeconomics in an Open Economy</td>
</tr>
<tr>
<td>ECON*3710</td>
<td>[0.50]</td>
<td>Advanced Microeconomics</td>
</tr>
<tr>
<td>ECON*3740</td>
<td>[0.50]</td>
<td>Introduction to Econometrics</td>
</tr>
</tbody>
</table>

Four additional courses, at least three of which must be in agricultural economics and at least one of which must be at the 4000 level, chosen from the following list:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGEC*2230</td>
<td>[0.50]</td>
<td>Management Accounting</td>
</tr>
<tr>
<td>AGEC*4210</td>
<td>[0.50]</td>
<td>World Agriculture and Economic Development</td>
</tr>
<tr>
<td>AGEC*4220</td>
<td>[0.50]</td>
<td>Advanced Farm Management</td>
</tr>
<tr>
<td>AGEC*4240</td>
<td>[0.50]</td>
<td>Futures and Options Markets</td>
</tr>
<tr>
<td>AGEC*4290</td>
<td>[0.50]</td>
<td>Land Economics</td>
</tr>
<tr>
<td>AGEC*4310</td>
<td>[0.50]</td>
<td>Resource Economics</td>
</tr>
<tr>
<td>ECON*3510</td>
<td>[0.50]</td>
<td>Money, Credit and the Financial System</td>
</tr>
<tr>
<td>ECON*3530</td>
<td>[0.50]</td>
<td>Industrial Organization</td>
</tr>
<tr>
<td>ECON*3580</td>
<td>[0.50]</td>
<td>Economics of Regulation</td>
</tr>
<tr>
<td>ECON*3610</td>
<td>[0.50]</td>
<td>Public Economics</td>
</tr>
<tr>
<td>ECON*3620</td>
<td>[0.50]</td>
<td>International Trade</td>
</tr>
<tr>
<td>ECON*3720</td>
<td>[0.50]</td>
<td>History of the World Economy since 1850</td>
</tr>
</tbody>
</table>

Notes: Prerequisites for the above courses will require students to take MATH*1000, MATH*1080, or MATH*1200 during their first year of study. A student may obtain permission to substitute certain other courses for the ones listed if the substitute courses fit with the students program. Approval from a departmental advisor is required.

Unless taken to satisfy the requirements of another program, no student may receive credit in this program for more than one of the following statistics prerequisites ECON*2740, STAT*2040, STAT*2060, or STAT*2080.

Anthropology (ANTH)

Department of Sociology and Anthropology, College of Social and Applied Human Sciences.
The Department of Sociology and Anthropology offers three types of courses: sociology courses with the prefix SOC*; anthropology courses with the prefix ANTH*; and departmental courses with the prefix SOAN*. The departmental category of courses recognizes the fact that the disciplines of sociology and sociocultural anthropology have developed in tandem and it is possible to identify large areas of overlap and convergence in the work of practitioners both historically and in the present. Departmental courses include most of the core theory and methods courses as well as many elective courses. They contribute equally to the subject matter of sociology as well as the subject matter of sociocultural anthropology for purposes of the undergraduate programs of study in both disciplines. Please see the listings for all courses required for the Anthropology program.

Courses will normally be offered in the semesters designated. Please check with the department for information about additional semester offerings. In addition to regularly scheduled courses, students may elect to do independent study. A student who wishes to do a reading course should first consult the professor with whom he/she wishes to work. Please note, a student is allowed a total of 1.00 credits only for reading courses.

Anthropology credit may also be given for some Sociology courses, with the exception of SOC*3840 through SOC*4910 inclusive. See a Sociology/Anthropology Faculty Advisor for approval of substitutions.

Area of Concentration (General Program)
A minimum of 6.00 credits is required, including:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH*1150</td>
<td>[0.50]</td>
<td>Anthropology</td>
</tr>
<tr>
<td>ANTH*2160</td>
<td>[0.50]</td>
<td>Social Anthropology</td>
</tr>
<tr>
<td>SOAN*2111/2</td>
<td>[1.00]</td>
<td>Classical Theory</td>
</tr>
</tbody>
</table>
Economic Policy

POLS*1400 [0.50] Public Management and Administration

Areas of Emphasis

One Area of Emphasis

One Economic History Course

Note: Only one of ECON*2000 and ECON*2500 may be selected.

Major (Honours Program)

A minimum of 9.00 credits is required, including:

ANTH*1150 [0.50] Anthropology
ANTH*2160 [0.50] Social Anthropology
ANTH*3690 [0.50] Anthropological Theory
ANTH*4300 [0.50] Anthropological Issues
LING*1000 [0.50] Introduction to Linguistics
SOAN*2110 [0.50] Classical Theory
SOAN*2120 [0.50] Introductory Methods
SOAN*3070 [0.50] Qualitative and Observational Methods

One of:

MUSC*2110 [0.50] Music of the Circum-Atlantic and the Americas
MUSC*2200 [0.50] Music of the Near and Far East

2.50 more credits in anthropology (ANTH) courses and 1.50 more credits in departmental (SOAN) courses. 1.00 credits of these 4.00 credits must be at the 4000 level.

Note: SOAN*3120 is recommended, especially for students planning to enter graduate programs.

Minor (Honours Program)

A minimum of 6.00 credits is required, including:

ANTH*1150 [0.50] Anthropology
ANTH*2160 [0.50] Social Anthropology
ANTH*3690 [0.50] Anthropological Theory
SOAN*2111/2 [1.00] Classical Theory
SOAN*2120 [0.50] Introductory Methods

One of:

LING*1000 [0.50] Introduction to Linguistics
MUSC*2110 [0.50] Music of the Circum-Atlantic and the Americas
MUSC*2200 [0.50] Music of the Near and Far East

1.50 more credits in anthropology (ANTH) courses and 1.00 more credits in departmental (SOAN) courses. 1.00 credits of these 2.50 credits must be at the 3000 level or above.

Note: Sociology credit may also be given for most Anthropology courses, with the exception of ANTH*3840 through ANTH*4910 inclusive.

Applied Economics (APEC)

Department of Economics, College of Social and Applied Human Sciences.

The Applied Economics program provides students with an opportunity to pursue the study of economics as it is applied to a particular area. In addition to the Applied Economics core, students identify an Area of Emphasis which includes relevant courses from other disciplines. In the final year of study, students take Applied Econometrics and complete a research project under the supervision of a faculty member.

Students are urged to consult the department's program planning guide and the department's advisors for detailed information about courses and programs and about the course of study most appropriate as preparation for graduate work in economics or business administration, for professional degrees such as the Bachelor's degree in Law, and for careers in business and government.

Note: Students specializing in Applied Economics who fail an Economics course twice will not be permitted to continue in the Applied Economics program.

Major (Honours Program)

Core Requirements

ECON*1050 [0.50] Introductory Microeconomics
ECON*1100 [0.50] Introductory Macroeconomics
ECON*2310 [0.50] Intermediate Microeconomics
ECON*2410 [0.50] Intermediate Macroeconomics
ECON*2740 [0.50] Economic Statistics
ECON*2770 [0.50] Introductory Mathematical Economics
ECON*3600 [0.50] Macroeconomics in an Open Economy
ECON*3710 [0.50] Advanced Microeconomics
ECON*3740 [0.50] Introduction to Econometrics
ECON*3770 [0.50] Mathematical Economics and Game Theory
ECON*4640 [0.50] Applied Econometrics I
ECON*4950 [0.50] Applied Economics Research Project

One Economics History Course

One Area of Emphasis

Note: ECON*2770 requires a first year university calculus course.

Areas of Emphasis

Economic Policy

POLS*1400 [0.50] Public Management and Administration

0.50 additional credits in Economics at the 4000 level

Two of:

ECON*2000 [0.50] Contemporary Economic Problems in Canada
ECON*2500 [0.50] Introduction to the Economics of Law, Crime and Enforcement
ECON*3300 [0.50] Economics of Health and the Workplace
ECON*3500 [0.50] Urban Economics
ECON*3510 [0.50] Money, Credit and the Financial System
ECON*3580 [0.50] Economics of Regulation
ECON*3610 [0.50] Public Economics

Note: Students who are considering graduate studies in Economics are advised to take the following courses:

ECON*4710 [0.50] Advanced Topics in Microeconomics
ECON*4810 [0.50] Advanced Macroeconomic Theory

International Trade and Development

ECON*3620 [0.50] International Trade

1.50 additional credits in Economics to include 1.00 credits at the 4000 level

One of:

ECON*2650 [0.50] Introductory Development Economics
ECON*3720 [0.50] History of the World Economy since 1850

One of:

ECON*4830 [0.50] Economic Development
ECON*4880 [0.50] Topics in International Economics

Two of:

IDEV*2010 [0.50] International Development Studies
GEOG*2030 [0.50] International Political Geography
POLS*2080 [0.50] Development and Underdevelopment
POLS*2200 [0.50] International Relations

Labour and Industrial Relations

ECON*3520 [0.50] Labour Economics
ECON*4790 [0.50] Topics in Labour Market Theory

1.00 additional credits in Economics at the 4000 level

One of:

ISS*2500 [0.50] Management in Organizations
PSYC*3070 [0.50] Psychology in Human Resource Management
HTM*4390 [0.50] Individuals and Groups in Organizations

Two of:

ECON*2200 [0.50] Industrial Relations
ECON*3300 [0.50] Economics of Health and the Workplace
ECON*3530 [0.50] Industrial Organization

Money and Finance

AGEC*2220 [0.50] Financial Accounting
AGEC*2230 [0.50] Management Accounting
ECON*3510 [0.50] Money, Credit and the Financial System
ECON*3560 [0.50] Theory of Finance
ECON*3660 [0.50] Economics of Equity Markets

1.00 additional credits in Economics at the 4000 level

One of:

AGEC*4240 [0.50] Futures and Options Markets
ECON*4760 [0.50] Topics in Monetary Economics

Resources and the Environment

AGEC*2700 [0.50] Survey of Natural Resource Economics
ECON*2100 [0.50] Economic Growth and Environmental Quality
ECON*4930 [0.50] Environmental Economics

2.00 additional credits in Economics to include 1.00 credits at the 4000 level

One of:

AGEC*4310 [0.50] Resource Economics
GEOG*1220 [0.50] Human Impact on the Environment
PHIL*2070 [0.50] Philosophy of the Environment

Art History (ARTH)

School of Fine Art and Music, College of Arts.

The School provides for concentrated study in Art History or Studio Arts, or for a more balanced study combining the two disciplines. Both Studio Art and Art History degree programs require some work in both the programs. Many Art History courses are also open to non specialized students.
The Art History program covers historical perspectives on the visual arts, study of the methodologies of art history and critical theory, and consideration of contemporary issues in the practice and display of art. Students pursuing a Major or Minor in Art History are required to take a minimum number of courses in each of three areas of focus in the program: Western Art; Visual Arts of the Americas; and Art Theory, Critical Methodology and Museology. The groups of courses that comprise these areas of focus are listed below. Students interested in the study of Art History in conjunction with other programs are recommended to look at the Minors offered in Visual Arts of the Americas, Museum Studies, and Art Theory and Criticism. Specific requirements for the Art History Honours Major and Minor are listed below.

**Student Counselling**

The students who elect to take a substantial number of courses in Art History with the objective of graduate work are advised to obtain counselling from faculty regarding their choices. It is important to know that graduate studies in Art History will usually require a reading knowledge of at least 2 languages other than English. German, French, Italian and Latin are among the most useful choices. Cognate electives in other disciplines in the College of Arts (such as History) will almost certainly prove an asset.

**Art History Core Requirements**

All students are required to complete the following core courses [2.00 credits]:

- ARTH*1220 [0.50] The Visual Arts Today
- ARTH*1510 [0.50] Art Historical Studies I
- ARTH*1520 [0.50] Art Historical Studies II
- and one [0.50] of the following:
  - SART*1050 [0.50] Integrated 2-D Media
  - SART*1060 [0.50] Media Convergence

**Major (Honours Program)**

A minimum of 9.00 credits is required, including:

- a. The Art History core
- b. 2.00 credits from the Western Art area of focus including: 0.50 credit in Ancient (ARTH*2150, ARTH*3150), 0.50 credit in Medieval (ARTH*2540, ARTH*3540), 0.50 credit from Renaissance & Baroque (ARTH*2550, ARTH*2950, ARTH*3100, ARTH*3550, ARTH*3640), 0.50 credit from Modern (ARTH*2280, ARTH*2290, ARTH*2580, ARTH*2600, ARTH*3520, ARTH*3570)
- c. 1.50 credits from the Arts of the Americas area of focus
- d. 1.00 credits from the Art Theory, Critical Methodology and Museology area of focus
- e. 2.50 additional credits in Art History

**Minor (Honours Program)**

A minimum of 5.00 credits is required, including:

- a. ARTH*1220, ARTH*1510, ARTH*1520
- b. 3.50 additional credits in Art History including 0.50 credits in each of the three areas of focus and at least 2.00 credits at the 3000 or 4000 level.

**Areas of Focus**

**Western Art**

- ARTH*2150 [0.50] Western Art: Greece
- ARTH*2280 [0.50] Western Art: Modern Architecture
- ARTH*2290 [0.50] Western Art: Photographic Media
- ARTH*2540 [0.50] Western Art: Medieval
- ARTH*2550 [0.50] Western Art: Italian Renaissance
- ARTH*2580 [0.50] Western Art: Late Modern
- ARTH*2600 [0.50] Western Art: Early Modern
- ARTH*2950 [0.50] Western Art: Baroque
- ARTH*3100 [0.50] Perspectives: Structure and Space in Renaissance and Baroque Art
- ARTH*3150 [0.50] Space: Roman Art and Urbanism
- ARTH*3200 [0.50] Colour: Practice and Meanings in Western Art
- ARTH*3520 [0.50] Idea: Art Since 1950
- ARTH*3540 [0.50] Image: The Arts in the High Middle Ages
- ARTH*3550 [0.50] Lives: Aspects of High Renaissance Art
- ARTH*3570 [0.50] Display: Visual Culture in Late 19th Century Europe
- ARTH*3640 [0.50] Objects: Baroque Art and Rococo Art
- ARTH*4150 [0.50] Questions in Western Art I
- ARTH*4160 [0.50] Questions in Western Art II

**Arts of the Americas**

- ARTH*2050 [0.50] Arts of the Americas: Latin America
- ARTH*2060 [0.50] Arts of the Americas: Aboriginal Perspectives
- ARTH*2070 [0.50] Arts of the Americas: The USA
- ARTH*2490 [0.50] Arts of the Americas: Canada
- ARTH*3010 [0.50] Americas: Canada
- ARTH*3050 [0.50] Americas: Meso America
- ARTH*3060 [0.50] Americas: Public Art
- ARTH*4050 [0.50] Questions in the Americas I
- ARTH*4060 [0.50] Questions in the Americas II

**Arts Theory, Critical Methodology and Museology**

- ARTH*2120 [0.50] Museology
- ARTH*2480 [0.50] Introduction to Art Theory and Criticism
- ARTH*3210 [0.50] Critical Issues
- ARTH*3220 [0.50] Nationalism and Identity in Art
- ARTH*3780 [0.50] Gender and Art
- ARTH*4550 [0.50] Questions in Criticism
- ARTH*4620 [0.50] Museum Studies

**Note:** Details of advanced standing for transfer students from the Ontario College of Art can be found in the section on Admission Information.

**Art Theory and Criticism (ATC)**

**School of Fine Art and Music.**

The Minor program in Art Theory and Criticism offers students the opportunity to engage critically with the most significant interpretative methods art historians and critics use to analyze artwork. Courses will provide an overview of important debates in the field and of their contexts, as well as informed discussions of the issues that are raised when textuality and visuality come together.

This program of study is designed as a complement to a significant number of Major specialization, and is suitable for any student wishing to broaden their knowledge beyond their Major area of study. Students wishing to combine this Minor with a Major in Art History are advised that the selection of their required courses should begin early in their degree, and that they should obtain counselling from faculty to ensure they can achieve the correct distribution.

**Minor (Honours Program)**

A minimum of 5.00 credits is required, including:

- a. ARTH*1220 [0.50] The Visual Arts Today
- ARTH*1510 [0.50] Art Historical Studies I
- ARTH*1520 [0.50] Art Historical Studies II
- PHIL*3050 [0.50] Philosophy of Art
- b. 3.00 additional credits in Art History as follows:
  - ARTH*2480 [0.50] Introduction to Art Theory and Criticism
  - ARTH*3210 [0.50] Critical Issues
  - ARTH*3220 [0.50] Nationalism and Identity in Art
  - ARTH*3520 [0.50] Idea: Art Since 1950
  - ARTH*3780 [0.50] Gender and Art
  - ARTH*4550 [0.50] Questions in Criticism

**Business Administration (BADM)**

**Department of Economics, College of Social and Applied Human Sciences.**

Interdisciplinary study in Business Administration is offered as a minor in the honours program. Students in this program will be counselled by the Department of Economics. It is possible for students to pursue a more intensive program in the area of business administration and economics; see the heading Applied Economics in the B.A. degree and the heading Management Economics in Industry and Finance in the B.Comm. degree.

**Minor (Honours Program)**

A minimum of 5.00 credits is required, including:

- a. AGEC*2220 [0.50] Financial Accounting
- AGEC*2230 [0.50] Management Accounting
- COST*3040 [0.50] Business and Consumer Law
- ECON*1050 [0.50] Introductory Microeconomics
- ECON*1100 [0.50] Introductory Macroeconomics
- ECON*2310 [0.50] Intermediate Microeconomics
- ECON*2410 [0.50] Intermediate Macroeconomics
- ECON*3560 [0.50] Theory of Finance

One of:
- AGEC*3310 [0.50] Operations Management
- HTM*4390 [0.50] Individuals and Groups in Organizations

**Classical Languages (CLAL)**

**School of Languages and Literatures, College of Arts.**

The Classical Languages program imparts an advanced knowledge of Greek and Latin and is designed for students who have a special interest in literature, history and philosophy or plan to do postgraduate study in any area of Classics.

**Core Requirements**

- GREK*1100, GREK*1110, GREK*2020, LAT*1100, LAT*1110, LAT*2000

**Major (Honours Program)**

A minimum of 9.00 credits is required, including:

- a. the Classical Languages core
b. any 5.00 credits from CLAS*3050, CLAS*3060, CLAS*3070, CLAS*3080, CLAS*3090, CLAS*3120, CLAS*4010

c. LAT*4100, LAT*4150

Minor (Honours Program)
A minimum of 6.00 credits is required, including:

a. the Classical Languages core
b. any 3.00 credits from those listed under Item (b) above

Classical Studies (CLAS)

School of Languages and Literatures, College of Arts.
The program in Classical Studies is intended particularly for students interested in Greek and Roman culture, society and history.

Core Requirements

a. CLAS*1000, plus EITHER (GREK*1100, GREK*1110, GREK*2020) OR (LAT*1100, LAT*1110, LAT*2000)

b. one of CLAS*2000, CLAS*2150, CLAS*2350, CLAS*3100

c. one of CLAS*3000, CLAS*3010, CLAS*3020

d. one of CLAS*3030, CLAS*3040

e. one of CLAS*3150, CLAS*3200, HIST*2850, PHIL*2140

Major (Honours Program)
A minimum of 8.00 credits is required, including:

a. the Classical Studies Core
b. CLAS*4000, CLAS*4150, CLAS*4400
c. 2.50 additional credits in Classics, 1.00 of which may be taken from the following as part of the program:
d. ENGL*1410 [0.50] Major English Writers

HIST*2200 [0.50] The Medieval World
LING*1000 [0.50] Introduction to Linguistics

Minor (Honours Program)
A minimum of 5.00 credits is required, including:

a. the Classical Studies Core
b. two of CLAS*4000, CLAS*4150, CLAS*4400

Cognitive Neuropsychology (CGNR)

Department of Psychology, College of Social and Applied Human Sciences.
Ellis and Young (1988) defined cognitive psychology as the "study of those mental processes which underlie and make possible our everyday ability to recognize familiar objects and people, to find our way around in the world, to speak, read and write, and to plan and execute actions, to think, make decisions and remember." They proposed two complementary aims in the study of cognitive neuropsychology:

i. To explain the patterns of impaired and intact cognitive performance seen in brain-injured patients in terms of damage to one or more of the components of a theory or model of normal cognitive functioning.

ii. To draw conclusions about normal, intact cognitive processes from the patterns of impaired and intact capabilities seen in brain-injured patients.

The Minor program in Cognitive Neuropsychology is targeted for students seeking to broaden their knowledge beyond their major area of study. It may be of particular interest to students specializing in biology or computer science. A Minor in cognitive neuropsychology will prove valuable to students seeking careers in research and medicine.

Minor (Honours Program)
(May not be taken in combination with a Psychology Honours Major)
A minimum of 6.00 credits is required, including:

PSYC*1100 [0.50] Principles of Behaviour
PSYC*1200 [0.50] Dynamics of Behaviour
PSYC*2360 [0.50] Introductory Research Methods
PSYC*2390 [0.50] Principles of Sensation and Perception
PSYC*2410 [0.50] Behavioural Neuroscience I
PSYC*2650 [0.50] Cognitive Psychology
PSYC*3330 [0.50] Memory
PSYC*3340 [0.50] Psycholinguistics
PSYC*3410 [0.50] Behavioural Neuroscience II
PSYC*4600 [0.50] Cognitive Neuroscience

0.50 additional credit in Psychology

One of:

PSYC*2010 [0.50] Quantification in Psychology
STAT*2040 [0.50] Statistics I

Note: Courses designated with (H) in Section XII—Course Descriptions are Honours level courses requiring for registration a cumulative average of at least 70% in all course attempts in Psychology.

Computing and Information Science (CIS)

Department of Computing and Information Science, College of Physical and Engineering Science.
The Computing and Information Science program emphasizes the applications of computing in other academic disciplines and in business environments. "B" grades are required for but do not guarantee admission to semester three of C.I.S. programs. The BA Program serves students who want computing at the core of a liberal education. The BA is also suited for students who wish to manipulate quantities of data or apply computing techniques across disciplines, especially in the social sciences, humanities or fine arts. Students with a more narrowly focused area of application might consider the BSc program for the natural and biological sciences or the BComp Program for other specializations. All three programs can lead to graduate work or positions in industry.

Area of Concentration (General Program)
A minimum of 5.25 credits is required, including:

CIS*1500 [0.50] Introduction to Programming
CIS*1910 [0.50] Discrete Structures in Computing I
CIS*2430 [0.50] Object Oriented Programming
CIS*2500 [0.50] Intermediate Programming
CIS*2520 [0.50] Data Structures
CIS*2750 [0.75] Software Systems Development and Integration
CIS*2910 [0.50] Discrete Structures in Computing II
CIS*3530 [0.50] Data Base Systems and Concepts

1.00 additional C.I.S. credits at the 2000 level or higher

Major (Honours Program)

Semester 1

CIS*1500 [0.50] Introduction to Programming
MATH*1200 [0.50] Calculus I

1.00 elective from different subject areas in the College of Arts (ENGL*1080 or ENGL*1200 is recommended)

0.50 elective from selected subject areas in the College of Social and Applied Human Sciences*

Semester 2

CIS*1910 [0.50] Discrete Structures in Computing I
CIS*2500 [0.50] Intermediate Programming

0.50 elective from the College of Arts

1.00 elective from selected subject areas in the College of Social and Applied Human Sciences*

Semester 3

CIS*2030 [0.50] Structure and Application of Microcomputers
CIS*2430 [0.50] Object Oriented Programming
CIS*2520 [0.50] Data Structures

CIS*2910 [0.50] Discrete Structures in Computing II

0.50 elective

Semester 4

CIS*2750 [0.75] Software Systems Development and Integration
CIS*3110 [0.50] Operating Systems

STAT*2040 [0.50] Statistics I

0.75 elective

Note: 0.50 elective may be selected in semester 4 followed by 0.50 elective in semester 5

Semester 5

CIS*2460 [0.50] Modelling of Computer Systems
CIS*3530 [0.50] Data Base Systems and Concepts
CIS*3750 [0.75] System Analysis and Design in Applications

0.5 C.I.S. elective at 3000 level or above (CIS*3210 [0.50] is recommended)

0.25 electives

Semester 6

CIS*3490 [0.50] The Analysis and Design of Computer Algorithms

1.00 C.I.S. electives at 3000 level or above

1.00 electives

Semester 7

1.00 C.I.S. credits at the 4000 level

1.50 elective

Semester 8

1.00 C.I.S. credit at the 4000 level

1.50 electives

*1.50 electives in semesters 1 and 2 must be from at least two of the following subject areas in the College of Social and Applied Human Sciences: ANTH, ECON, GEOG, POLS, PSYC, SOAN, SOC, WMST

Minor (Honours Program)
A minimum of 5.25 credits is required, including:
### Computing and Information Science (Co-op) (CIS:C)

#### Department of Computing and Information Science, College of Physical and Engineering Science.

The 4 year Honours Program Major in Computing and Information Science is also available as a Co-operative Education Program. Three co-op work terms are required.

COOP*1100 must be completed in the 2nd academic semester (Winter of year 1). Students may apply for these options at the time of University admission or completion of semester 2. A five year option with four work terms is also available. Please see the department's co-op academic advisor for details.

Conditions for graduation are the same as the corresponding regular B.A. program. In addition, all work reports must have a grade of satisfactory or better.

Recommended work terms are shown below:

#### Work/Study Semesters

**List A**

**Semester 1 (Fall)**
- CIS*1500 [0.50] Introduction to Programming
- MATH*1200 [0.50] Calculus I
- 1.00 elective from different subject areas in the College of Arts (ENGL*1080 or ENGL*1200 is recommended)
- 0.50 elective from selected subject areas in the College of Social and Applied Human Sciences*

**Semester 2 (Winter)**
- CIS*1910 [0.50] Discrete Structures in Computing I
- CIS*2500 [0.50] Intermediate Programming
- COOP*1100 [0.00] Introduction to Co-operative Education
- 0.50 elective from the College of Arts
- 1.00 elective from selected subject areas in the College of Social and Applied Human Sciences*

**Semester 3 (Summer)**
- CIS*2030 [0.50] Structure and Application of Microcomputers
- CIS*2430 [0.50] Object Oriented Programming
- CIS*2520 [0.50] Data Structures
- CIS*2910 [0.50] Discrete Structures in Computing II
- 0.50 elective in the Area of Application or elective

**Fall Semester**
- COOP*1000 [0.00] Co-op Work Term I

**Semester 4 (Winter)**
- CIS*2750 [0.75] Software Systems Development and Integration
- CIS*3110 [0.50] Operating Systems
- CIS*3490 [0.50] The Analysis and Design of Computer Algorithms
- STAT*2040 [0.50] Statistics I
- 0.25 credits in the Area of Application or elective

**Summer Semester**
- COOP*2000 [0.00] Co-op Work Term II

**Semester 5 (Fall)**
- CIS*2460 [0.50] Modelling of Computer Systems
- CIS*3530 [0.50] Data Base Systems and Concepts
- CIS*3750 [0.75] System Analysis and Design in Applications
- 0.75 credits in the Area of Application or elective

**Winter Semester**
- COOP*3000 [0.00] Co-op Work Term III

**Semester 6 (Summer)**
- CIS*3490 [0.50] The Analysis and Design of Computer Algorithms
- 1.00 C.I.S. electives at 3000 level or above

**Semester 7 (Fall)**
- 1.00 C.I.S. credits at the 4000 level
- 1.50 electives

**Semester 8 (Winter)**
- 1.00 C.I.S. credit at the 4000 level
- 1.50 electives

### List B

**Semester 1 (Fall)**
- CIS*1500 [0.50] Introduction to Programming
- MATH*1200 [0.50] Calculus I
- 1.00 elective from different subject areas in the College of Arts (ENGL*1060 or ENGL*1200 is recommended)
- 0.50 elective from different subject areas in the College of Social and Applied Human Sciences*

**Semester 2 (Winter)**
- CIS*1910 [0.50] Discrete Structures in Computing I
- CIS*2500 [0.50] Intermediate Programming
- COOP*1100 [0.00] Introduction to Co-operative Education
- 0.50 elective from the College of Arts
- 1.00 elective from different subject areas in the College of Social and Applied Human Sciences*

**Semester 3 (Summer)**
- CIS*2030 [0.50] Structure and Application of Microcomputers
- CIS*2430 [0.50] Object Oriented Programming
- CIS*2520 [0.50] Data Structures
- CIS*2910 [0.50] Discrete Structures in Computing II
- 0.50 elective in the Area of Application or elective

**Fall Semester**
- COOP*1000 [0.00] Co-op Work Term I

**Semester 4 (Winter)**
- CIS*2750 [0.75] Software Systems Development and Integration
- CIS*3110 [0.50] Operating Systems
- CIS*3490 [0.50] The Analysis and Design of Computer Algorithms
- STAT*2040 [0.50] Statistics I
- 0.25 credits in the Area of Application or elective

**Summer Semester**
- COOP*2000 [0.00] Co-op Work Term II

**Semester 5 (Fall)**
- CIS*2460 [0.50] Modelling of Computer Systems
- CIS*3530 [0.50] Data Base Systems and Concepts
- CIS*3750 [0.75] System Analysis and Design in Applications
- 0.75 credits in the Area of Application or elective

**Winter Semester**
- COOP*3000 [0.00] Co-op Work Term III

**Semester 6 (Summer)**
- Alternative 1 [Recommended]
- CIS*3760 [0.75] Software Engineering
- 0.50 C.I.S. elective at the 3000 level or above
- 1.25 credits in the Area of Application or elective
- OR Alternative 2
- 1.50 C.I.S. electives at the 3000 level or above
- 1.00 credits in the Area of Application or elective

**Semester 7 (Fall)**
- 1.00 credits in the Area of Application or elective
- 0.50 credits in the C.I.S. at the 3000 level or above
- 1.00 credits in C.I.S. at the 4000 level

**Semester 8 (Winter)**
- CIS*4000 [0.50] Applications of Computing Seminar
- 1.00 C.I.S. credit at the 4000 level
- 1.50 credits in the Area of Application or elective
- 0.50 credits in the C.I.S. at the 4000 level
- *1.50 electives in semesters 1 and 2 must be from at least two of the following subject areas in the College of Social and Applied Human Sciences: ANTH, ECON, GEOG, POLS, PSYC, SOAN, SOC, WMST

### Criminal Justice and Public Policy (CJPP)

#### Department of Sociology and Anthropology, and the Department of Political Science, College of Social and Applied Human Sciences.

Criminal Justice and Public Policy is offered as a minor in the honours program and as a major in the honours program. It is designed to provide students seeking a career in the criminal justice system, or planning to pursue an advanced degree with a knowledge base that will enable them to pursue their career objectives. The program offers a unique blend of sociological courses dealing with the criminal justice system as well as courses in Political Science dealing with public policy formation and implementation. It also provides students with the conceptual and methodological tools needed for further study.
Students who are not admitted directly into the CIPP major and subsequently wish to declare the specialization must apply directly to the department. In order to be eligible, applicants must have a cumulative average of 70% or better in the following foundation courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>POLS*1400</td>
<td>Public Management and Administration</td>
<td>0.50</td>
</tr>
<tr>
<td>POLS*2250</td>
<td>Public Administration</td>
<td>0.50</td>
</tr>
<tr>
<td>POLS*2300</td>
<td>Canadian Government</td>
<td>0.50</td>
</tr>
<tr>
<td>SOAN*2120</td>
<td>Introductory Methods</td>
<td>0.50</td>
</tr>
<tr>
<td>SOC*1500</td>
<td>Crime and Criminal Justice</td>
<td>0.50</td>
</tr>
<tr>
<td>SOC*2700</td>
<td>Criminological Theory</td>
<td>0.50</td>
</tr>
</tbody>
</table>

Note: The requirement for an average of 70% or better applies only to students admitted to the University of Guelph after 30 April 2002.

Students wishing to declare the CIPP minor must also meet the above requirement. Students from other institutions who transfer to the University of Guelph and wish to declare the CIPP major or minor must also meet the above requirement. If an external transfer student is granted credit for one or more of the foundation courses listed above, then he or she must attain a cumulative average of 70% or better in the remaining required CIPP foundation courses.

Note: There is no CIPP Area of Concentration in the General Program as of Fall 2002.

**Major (Honours Program)**

A minimum of 9.00 credits is required, including:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHIL*1010</td>
<td>Introductory Philosophy: Social and Political Issues</td>
<td>0.50</td>
</tr>
<tr>
<td>POLS*1400</td>
<td>Public Management and Administration</td>
<td>0.50</td>
</tr>
<tr>
<td>POLS*2250</td>
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<td>0.50</td>
</tr>
<tr>
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<td>0.50</td>
</tr>
<tr>
<td>SOC*1500</td>
<td>Crime and Criminal Justice</td>
<td>0.50</td>
</tr>
<tr>
<td>SOC*2700</td>
<td>Criminological Theory</td>
<td>0.50</td>
</tr>
</tbody>
</table>

One of:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>POLS*3650</td>
<td>The Systematic Study of Politics</td>
<td>0.50</td>
</tr>
<tr>
<td>SOAN*3120</td>
<td>Quantitative Methods</td>
<td>0.50</td>
</tr>
</tbody>
</table>

Three of:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOC*2670</td>
<td>Social Deviance</td>
<td>0.50</td>
</tr>
<tr>
<td>SOC*2250</td>
<td>Serial Murder</td>
<td>0.50</td>
</tr>
<tr>
<td>SOC*3490</td>
<td>Law and Society</td>
<td>0.50</td>
</tr>
<tr>
<td>SOC*3710</td>
<td>Young Offenders</td>
<td>0.50</td>
</tr>
<tr>
<td>SOC*3730</td>
<td>Courts and Society</td>
<td>0.50</td>
</tr>
<tr>
<td>SOC*3740</td>
<td>Corrections and Penology</td>
<td>0.50</td>
</tr>
<tr>
<td>SOC*3750</td>
<td>Police in Society</td>
<td>0.50</td>
</tr>
</tbody>
</table>

Three of:

<table>
<thead>
<tr>
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<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>POLS*3110</td>
<td>Politics of Ontario</td>
<td>0.50</td>
</tr>
<tr>
<td>POLS*3130</td>
<td>Law, Politics, and Judicial Process</td>
<td>0.50</td>
</tr>
<tr>
<td>POLS*3210</td>
<td>The Constitution and Canadian Federalism</td>
<td>0.50</td>
</tr>
<tr>
<td>POLS*3250</td>
<td>Public Policy: Challenges and Prospects</td>
<td>0.50</td>
</tr>
<tr>
<td>POLS*3300</td>
<td>Governing Criminal Justice</td>
<td>0.50</td>
</tr>
<tr>
<td>POLS*3440</td>
<td>Corruption, Scandal and Political Ethics</td>
<td>0.50</td>
</tr>
<tr>
<td>POLS*3670</td>
<td>Comparative Public Policy and Administration</td>
<td>0.50</td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
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<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST*3130</td>
<td>Popular Culture and Punishment, 1700-1900</td>
<td>0.50</td>
</tr>
<tr>
<td>PHIL*3040</td>
<td>Philosophy of Law</td>
<td>0.50</td>
</tr>
<tr>
<td>PHIL*3230</td>
<td>Issues in Social and Political Philosophy</td>
<td>0.50</td>
</tr>
<tr>
<td>PSYC*3020</td>
<td>Psychology of Law</td>
<td>0.50</td>
</tr>
</tbody>
</table>

Three of:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>POLS*3140</td>
<td>Civil Rights and Civil Liberties in Canada and the U.S.</td>
<td>0.50</td>
</tr>
<tr>
<td>POLS*4250</td>
<td>Problems in Public Administration and Public Policy</td>
<td>0.50</td>
</tr>
<tr>
<td>POLS*4260</td>
<td>Topics in Public Policy</td>
<td>0.50</td>
</tr>
<tr>
<td>SOC*4010</td>
<td>Violence and Society</td>
<td>0.50</td>
</tr>
<tr>
<td>SOC*4030</td>
<td>Advanced Topics in Criminology</td>
<td>0.50</td>
</tr>
<tr>
<td>SOC*4200</td>
<td>Advanced Topics in Criminal Justice</td>
<td>0.50</td>
</tr>
<tr>
<td>SOC*4900</td>
<td>Honours Sociology Thesis I</td>
<td>0.50</td>
</tr>
<tr>
<td>SOC*4910</td>
<td>Honours Sociology Thesis II</td>
<td>0.50</td>
</tr>
</tbody>
</table>

**Minor (Honours Program)**

A minimum of 6.00 credits is required, including:

<table>
<thead>
<tr>
<th>Course Code</th>
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<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>PHIL*1010</td>
<td>Introductory Philosophy: Social and Political Issues</td>
<td>0.50</td>
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<tr>
<td>POLS*1400</td>
<td>Public Management and Administration</td>
<td>0.50</td>
</tr>
<tr>
<td>POLS*2250</td>
<td>Public Administration</td>
<td>0.50</td>
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<tr>
<td>POLS*2300</td>
<td>Canadian Government</td>
<td>0.50</td>
</tr>
<tr>
<td>SOAN*2120</td>
<td>Introductory Methods</td>
<td>0.50</td>
</tr>
<tr>
<td>SOC*1500</td>
<td>Crime and Criminal Justice</td>
<td>0.50</td>
</tr>
<tr>
<td>SOC*2700</td>
<td>Criminological Theory</td>
<td>0.50</td>
</tr>
</tbody>
</table>

Two of:

<table>
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<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOC*2070</td>
<td>Social Deviance</td>
<td>0.50</td>
</tr>
<tr>
<td>SOC*2750</td>
<td>Serial Murder</td>
<td>0.50</td>
</tr>
<tr>
<td>SOC*3490</td>
<td>Law and Society</td>
<td>0.50</td>
</tr>
</tbody>
</table>

**Developmental Psychology (DPSY)**

Department of Psychology, College of Social and Applied Human Sciences.

The focus of Developmental Psychology is the study of the theory, research, and applied interventions associated with the way humans develop and change over time. This focus is especially significant for anyone interested in how we might solve the challenges presented by life. These include the special challenges presented by schooling, parenting, socialization within and beyond the family, coping with stress, and some of the individual differences and atypical behaviors exhibited by ourselves or others. This program of study is designed as a complement to a significant number of Major specializations, suitable for any student wishing to broaden their knowledge beyond their Major area of study.

**Minor (Honours Program)**

(May not be taken in combination with a Psychology Honours Major)

A minimum of 6.00 credits is required, including:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC*1100</td>
<td>Principles of Behaviour</td>
<td>0.50</td>
</tr>
<tr>
<td>PSYC*1200</td>
<td>Dynamics of Behaviour</td>
<td>0.50</td>
</tr>
</tbody>
</table>

2.50 credits across Psychology Core Courses, to include PSYC*2330, PSYC*2450, PSYC*2650.

2.00 credits from the following courses at the 3000 level:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC*3440</td>
<td>Cognitive Development</td>
<td>0.50</td>
</tr>
<tr>
<td>PSYC*3450</td>
<td>Social and Personality Development</td>
<td>0.50</td>
</tr>
<tr>
<td>PSYC*3460</td>
<td>Abnormal Development</td>
<td>0.50</td>
</tr>
<tr>
<td>PSYC*3710</td>
<td>Psychology of Learning Difficulties and Disabilities I</td>
<td>0.50</td>
</tr>
<tr>
<td>PSYC*3850</td>
<td>Intellectual Disabilities</td>
<td>0.50</td>
</tr>
</tbody>
</table>

0.50 elective credit in Psychology at the 3000 level or above, with PSYC*3570, PSYC*3800 or the 5th course from the above restricted elective list recommended.

Note: Courses designated with (H) in Section XII--Course Descriptions are Honours level courses requiring for registration a cumulative average of at least 70% in all course attempts in Psychology.

**Drama (DRMA)**

School of English and Theatre Studies, College of Arts.

The Drama program is a component of a liberal education, and is dedicated to the integrated study of both academic and practical applications of drama and theatre. It offers introductory and advanced courses in dramatic literature, theatre history, criticism and theory, together with directing, acting, design and technical theatre in both general and honours programs. The Drama program has a special interest in the drama and theatre of Canada. Course offerings reflect this interest where appropriate.

Notes:

1. A maximum of 2.00 credits in Directed Readings or Special Studies Courses (DRMA*3410, DRMA*3420, DRMA*3600, DRMA*3610) is allowed in the honours program major. A maximum of 1.00 credits in such courses is allowed in honours program minor or the general program area of concentration. Students will normally be permitted to take only 0.50 credits in Directed Readings or Special Studies courses per semester.

2. Certain approved Dramatic Literature courses from other departments may be counted as Drama equivalents in the honours program major or minor or general program area of concentration. A list of approved courses may be obtained from the School of English and Theatre Studies.

3. In connection with DRMA*1000 students are required as part of the course to attend various specified theatre performances in cities such as Toronto, Stratford, Niagara-on-the-Lake, and London. A special fee is charged for travel to these performances and students will be notified during the first week of classes of the amount of this fee and the dates of the performances.

**Area of Concentration (General Program)**

A minimum of 5.00 credits in Drama is required, including:

a. DRMA*1000, DRMA*1050, DRMA*2080, DRMA*2220, DRMA*2300
b. at least one of DRMA*3180, ENGL*3180, DRMA*3550, DRMA*3850
A minimum of 5.00 credits in Economics is required, including:

**Applied Econometrics and ECON*4840, Applied Econometrics II.** at the 4000 level

2.50 other credits in Economics at the 3000 or 4000 level, at least 1.50 of which must be

- ECON*4720 [0.50] Topics in Economic History
- ECON*3730 [0.50] Europe and the World Economy to 1914
- ECON*3720 [0.50] History of the World Economy since 1850
- ECON*2720 [0.50] Business History

One of:

- ECON*4710 [0.50] Advanced Topics in Microeconomics
- ECON*3770 [0.50] Mathematical Economics and Game Theory
- ECON*3710 [0.50] Advanced Microeconomics
- ECON*3600 [0.50] Macroeconomics in an Open Economy
- ECON*2770 [0.50] Introductory Mathematical Economics

**ECON*2740 [0.50] Economic Statistics**

**Area of Concentration (General Program)**

A minimum of 5.00 credits in Economics is required, including:

- a. the Economics core
- b. 2.50 other credits in Economics at the 3000 or 4000 level

**Major (Honours Program)**

A minimum of 9.00 credits in Economics is required, including:

The Economics core requirements

- ECON*2770 [0.50] Introductory Mathematical Economics
- ECON*3600 [0.50] Macroeconomics in an Open Economy
- ECON*3710 [0.50] Advanced Microeconomics
- ECON*3740 [0.50] Introduction to Econometrics
- ECON*3770 [0.50] Mathematical Economics and Game Theory
- ECON*4710 [0.50] Advanced Topics in Microeconomics
- ECON*4810 [0.50] Advanced Macroeconomic Theory

(Note: ECON*2770 requires a first year university calculus course)

One of:
- ECON*2720 [0.50] Business History
- ECON*3550 [0.50] North American Economic History
- ECON*3720 [0.50] History of the World Economy since 1850
- ECON*3730 [0.50] Europe and the World Economy to 1914
- ECON*4720 [0.50] Topics in Economic History

2.50 other credits in Economics at the 3000 or 4000 level, at least 1.50 of which must be

**Minor (Honours Program)**

A minimum of 5.00 credits in Economics is required, including:

- a. the Economics core
- b. 2.50 other credits in economics at the 3000 or 4000 level
A minimum of 8.50 English credits is required, including:

- 1.00 credits from ENGL*1080 and ENGL*2080
- 2.00 credits from ENGL*2120, ENGL*2130, ENGL*3940, ENGL*3960
- 3.50 credits from 3000 level lecture courses which fulfill degree requirements listed below

In addition, students must complete:

- 1.00 credits from any other 3000 level lecture courses
- 0.50 credit from any other seminar or lecture course

It is recommended that students take 0.50 credit at the 2000 level in a lecture course.

General Program Degree requirements to be fulfilled in part through 2.00 credits from 3000 level lecture courses in the following areas:

- 0.50 credit in Early Modern Literature
- 0.50 credit in 18th and 19th Century Literature
- 0.50 credit in Colonialisms/Postcolonialisms
- 0.50 credit in Canadian Literature/American Literature

**Major (Honours Program)**

A minimum of 8.50 English credits is required, including:

- 1.00 credits from ENGL*1080 and ENGL*2080
- 2.00 credits from ENGL*2120, ENGL*2130, ENGL*3940, ENGL*3960
- 3.50 credits from 3000 level lecture courses which fulfill degree requirements listed below
- 1.00 credits from any other lecture courses on offer.

It is recommended that students take two 2000 level lecture courses.

Honours Program Major Degree Requirements to be fulfilled in part through 3.50 credits from 3000 level lecture courses in the following areas:

- 1.00 credits in Early Modern Literature
- 1.00 credits in 18th and 19th Century Literature
- 0.50 credit in American Literature
- 0.50 credit in Canadian Literature
- 0.50 credit in Colonialisms/Postcolonialisms

**Department of Psychology, College of Social and Applied Human Sciences.**

This program allows for specialization in Psychology as it relates to Education. It may be of particular interest to teachers, those considering teaching as a career, or anyone interested in the field of Educational Psychology.

**Minor (Honours Program)**

(May not be taken in combination with a Psychology Honours Major)

A minimum of 6.00 credits is required, including:

- PSYC*1100 [0.50] Principles of Behaviour
- PSYC*1200 [0.50] Dynamics of Behaviour
- PSYC*2010 [0.50] Quantification in Psychology
- PSYC*2450 [0.50] Introduction to Developmental Psychology
- PSYC*3250 [0.50] Psychological Measurement
- PSYC*3710 [0.50] Psychology of Learning Difficulties and Disabilities I
- PSYC*3800 [0.50] Psychology and Education

Note: Courses designated with (H) in Section XII—Course Descriptions are Honours level courses requiring for registration a cumulative average of at least 70% in all course attempts in Psychology.

**Environmental Studies (ENVS)**

The M.A. program in English at Guelph gives preference to qualified applicants with a broad experience in literary and cultural studies and related disciplines.

**Minor (Honours Program)**

The program of study and requirements are the same as for the Area of Concentration in the General Program.
The European Studies program is designed for students who seek a career in International Relations - especially in International Business and Administration - between Canada and Europe. It offers a combination of languages, specially designed courses in European thought, letters and history and specialization in either British European or European Culture and Civilization.

Successful completion of the European Studies major requires proficiency in one of the following languages (French, German, Italian or Spanish). In order to demonstrate language proficiency, students have two options: they may study for a year at a European university, in the country where their chosen core language is spoken, or they may write a final research paper in the chosen core language within a required fourth year European Studies course (see EURO*4740). It is highly recommended that students spend their third year studying at a European university, in the country where their chosen core language is spoken. The benefits of such an experience are considerable, both academically and personally. One specific academic outcome of a successful year abroad will be recognition that the student has fulfilled the program's core language requirement. Those who can demonstrate that they have written a major academic paper or exam in their chosen core language while participating in an approved study year may be waived from the required course EURO*4740. See the Coordinator for the European Studies program for more information. See also the course description for EURO*4740.

Major (Honours Program)

A minimum of 13.00 credits is required, including:

a. the three components of the European Studies core (8.00 credits)

b. 5.00 credits in either the European Culture and Civilization or the European Business Studies area of emphasis

Core Requirements

1. EURO*1050 [0.50] The Emergence of a United Europe
   EURO*1200 [0.50] European Culture from the Mid 18th to the Mid 19th Century
   EURO*2070 [0.50] European Integration, 1957-1992
   EURO*2200 [0.50] European Culture from the Mid 19th Century to the 1920's
   EURO*2300 [0.50] European Culture since 1920
   EURO*4740 [0.50] Research Project in European Studies

Note: in order to demonstrate language proficiency, students must write a research paper (EURO*4740) in their core language unless they have spent one year studying at a European university, in the country where their chosen core language is spoken. Where that is the case, upon approval of the Coordinator for European Studies EURO*4740 will be waived.

2. 3.00 credits in one language:
   FREN*2020 [0.50] France: Literature and Society
   FREN*2030 [0.50] French Language II
   FREN*2520 [0.50] French Composition I
   FREN*2540 [0.50] Spoken French: Theory and Practice
   FREN*3520 [0.50] French Composition II
   FREN*3530 [0.50] Business French
   OR
   GERM*2400 [0.50] Contemporary Germany
   GERM*2490 [0.50] Intermediate German I
   GERM*2500 [0.50] Intermediate German II
   GERM*2560 [0.50] Themes in German Literature/Culture
   GERM*3500 [0.50] Advanced German
   GERM*3530 or GERM*2590
   OR
   ITAL*2060 [0.50] Intermediate Italian I
   ITAL*2070 [0.50] Intermediate Italian II
   ITAL*2350 [0.50] Contemporary Italian Literature
   ITAL*3060 [0.50] Advanced Italian
   ITAL*3530 or ITAL*3150 or ITAL*3280
   ITAL*3950 [0.50] Topics in Italian Literature
   OR
   SPAN*2000 [0.50] Spanish Language I
   SPAN*2010 [0.50] Spanish Language II
   SPAN*2040 [0.50] Spanish Civilization
   SPAN*2990 [0.50] Introduction to Hispanic Literary Studies
   SPAN*3500 [0.50] Spanish Grammar and Composition I
   SPAN*3530 [0.50] Business Spanish
   OR
   3. CLAS*1000 [0.50] Introduction to Classical Culture
   ISS*2500 [0.50] Management in Organizations
   HIST*2510 [0.50] The Emergence of Modern European Society 1789-1945
   POLS*3450 [0.50] European Governments and Politics

Areas of Emphasis

European Business

Required courses:

AGEC*2220 [0.50] Financial Accounting
AGEC*3320 [0.50] Management Accounting
ECON*1050 [0.50] Introductory Microeconomics
ECON*1100 [0.50] Introductory Macroeconomics

One of:

AGEC*3310 [0.50] Operations Management
AGEC*4370 [0.50] Marketing Management

2.00 credits (4 courses) chosen from:

One of:

AGEC*3310 [0.50] Operations Management
AGEC*4370 [0.50] Marketing Management

Note: each of these courses counts as either required or restricted elective, may not be double counted

AGEC*4250 [0.50] Business Policy
COST*1000 [0.50] Introduction to Marketing Management
COST*2100 [0.50] Personal Financial Management
COST*2600 [0.50] Fundamentals of Consumer Behaviour
COST*3020 [0.50] Services & Retail Marketing
COST*3040 [0.50] Business and Consumer Law
ECON*2310 [0.50] Intermediate Microeconomics
ECON*2410 [0.50] Intermediate Macroeconomics
ECON*3560 [0.50] Theory of Finance
ECON*3660 [0.50] Economics of Equity Markets
ECON*3720 [0.50] History of the World Economy since 1850
ECON*3730 [0.50] Europe and the World Economy to 1914
HTM*2200 [0.50] Organizational Behaviour I
HTM*3000 [0.50] Human Resources Management
HTM*3100 [0.50] Dimensions of Tourism
HTM*3160 [0.50] Destination Management and Marketing
HTM*4170 [0.50] International Tourism Development and Management
HTM*4390 [0.50] Individuals and Groups in Organizations
STAT*2060 [0.50] Statistics for Business Decisions

European Culture and Civilization

Students must take 5.00 credits (10 courses) including at least 0.50 credit (1 course) from each of the following four groups. The remaining 3.00 credits may be chosen from any of the courses in the four groups.

Group A

CLAS*2000 [0.50] Classical Mythology
CLAS*2350 [0.50] The Classical Tradition
EURO*3150 [0.50] Topics in European Film
FREN*1000 [0.50] Understanding the French Speaking World
FREN*2500 [0.50] French Translation I
GERM*2240 [0.50] Germany Through the Ages
HIST*2850 [0.50] History of Greece and Rome
HIST*3020 [0.50] Myth and Fairy Tales in Germany
HUMN*3170 [0.50] Women, Virtue and Honour in Spanish Drama (In English)
HUMN*3450 [0.50] 20th-Century German Literature and Film
HUMN*4170 [0.50] Don Quixote and the Picaresque Novel (In English)

Group B

HIST*1010 [0.50] Europe in the Age of Expansion
HIST*2200 [0.50] The Medieval World
HIST*2820 [0.50] Modern France, 1750-1992: From Louis XV to Mitterand
HIST*2830 [0.50] The Emergence of Modern Germany 1871-1990
HIST*3090 [0.50] Nationalism and Internationalism in Europe 1914-1957
HIST*3290 [0.50] Europe in the Age of Revolutions, 1789-1848
HIST*3540 [0.50] World War Two
HIST*3570 [0.50] Women in Modern Europe
HIST*3750 [0.50] The Reformation
HIST*3820 [0.50] Early Modern France
HIST*4470 [0.50] Special History Project Seminar I
HIST*4570 [0.50] Topics in Revolution
HIST*4580 [0.50] Topics in Revolution

Group C

ARTH*1510 [0.50] Art Historical Studies I
ARTH*1520 [0.50] Art Historical Studies II
ARTH*2250 [0.50] Western Art: Italian Renaissance
ARTH*2250 [0.50] Western Art: Late Modern
ARTH*2600 [0.50] Western Art: Early Modern
ARTH*3100 [0.50] Perspectives: Structure and Space in Renaissance and Baroque Art
ARTH*3350 [0.50] Lives: Aspects of High Renaissance Art
ARTH*3570 [0.50] Display: Visual Culture in Late 19th Century Europe
ARTH*3640 [0.50] Objects: Baroque Art and Rococo Art
MUSC*1060 [0.50] Introduction to Music
MUSC*2280 [0.50] Masterworks of Music
Area of Concentration (General Program)
A minimum of 5.00 French credits taught in French is required, including FREN*1200, FREN*2020, FREN*2030, FREN*2060, FREN*2520, FREN*3520.

Major (Honours Program)
A minimum of 8.00 French credits taught in French is required, including:

a. FREN*1200, FREN*2020, FREN*2030, FREN*2060, FREN*2520, FREN*3230
b. at least 0.50 credit from FREN*2500, FREN*2540
c. at least 2.00 additional credits from FREN*3000, FREN*3010, FREN*3020, FREN*3070, FREN*3150, FREN*3200, FREN*3210, FREN*3220, FREN*3240, FREN*3290, FREN*3560
d. at least 1.00 credits from FREN*3500, FREN*3520, FREN*3530
e. at least 1.50 credits at the 4000 level

Minor (Honours Program)
A minimum of 5.00 French credits taught in French is required, including:

a. FREN*1200, FREN*2020, FREN*2030, FREN*2060, FREN*2520, FREN*3520
b. 1.00 credit in French literature from FREN*3000, FREN*3010, FREN*3020, FREN*3070, FREN*3240, FREN*3290, FREN*3560, FREN*4300
c. 1.00 additional credits from French

Notes:
1. Students are strongly urged to take 0.50 language credit each semester.
2. Students in the general program may take 4000 level courses, but must previously have taken FREN*3520.
3. Students of French are encouraged to take advantage of the French residence on this campus. Applications for accommodation in the Maison Française should be made well in advance of registration.
4. FREN*1000, FREN*1120, FREN*1090, FREN*1110, FREN*1110 are not counted toward a specialization in French.
5. Francophone students and Graduates of Highschool French Immersion will not normally be admitted into FREN*1200 and FREN*2030. It is recommended they start their program with FREN*2020, FREN*2060, FREN*2520, or FREN*2520 with the approval of the Faculty Advisor.

Geography (GEOG)

Department of Geography, College of Social and Applied Human Sciences.
The Department of Geography provides students with a broad range of courses in Human and Physical Geography which focus on the nature and evolution of the numerous and complex physical and human environment systems of the world. Students are required to select courses from both the human and physical fields. Within the program of studies it is possible for students through course selection to follow a particular line of interest in, for example, Rural Geography, Resource Management, Urban and Economic Geography, Biophysical Resources or Geomorphology. The 1000 level courses provide a foundation for the Geography programs and are prerequisites or are strongly recommended for many of the 2000 level courses. The 2000 level systematic courses are prerequisite to the corresponding advanced courses at the 3000 and 4000 level. All students should obtain a copy of the department program planning guide and consult with faculty before planning their course of studies. Students contemplating graduate or professional programs of study following completion of the honours program should consult a departmental advisor for advice on additional courses that they should take. The department also offers a B.SC.honours Earth Surface Science program (jointly with Land Resources Science), a B.SC.(ENV.)honours Environmental Geography Major program, and a B.SC. honours program Minor in Geographic Information Systems and Environmental Analysis which are described in the schedule of studies for each of the programs (Section X). Geography B.A. honours Majors are eligible to take the B.SC. Minor. All Geography students are encouraged to consult with a departmental advisor regarding course selection. The following courses offered by the Department of Land Resource Science may be counted as Geography credits: GEOG*206. 2000, GEOG*203, GEOG*200, GEOG*2100, GEOG*2110, GEOG*2120, GEOG*2200, GEOG*2200, GEOG*2210, GEOG*2220, GEOG*2230, GEOG*2240, GEOG*2260, GEOG*2260, GEOG*2260.

Area of Concentration (General Program)
A minimum of 5.00 credits in Geography is required, including:

GEOM*1200 [0.50]  Society and Space
GEOM*1220 [0.50]  Human Impact on the Environment
GEOM*1300 [0.50]  Introduction to the Biophysical Environment
2.00 credits at the 3000 level or above
Two of:
GEOM*2000 [0.50]  Geomorphology
GEOM*2110 [0.50]  Climate and the Biophysical Environment
GEOM*2210 [0.50]  Environment and Resources
GEOM*2230 [0.50]  Economic Geography
GEOM*2260 [0.50]  Applied Social Geography
One of:

Studies in Quebec or Abroad
The French program encourages students to spend 1 or 2 semesters in a French-speaking province or country, or to pursue their studies in an immersion program at the university level. Credit for programs of study successfully completed may be applied towards the University of Guelph degree requirements. Requests should be addressed well in advance of registration to the Director of the School of Languages and Literatures. A letter of permission is required (see the Section VIII—Undergraduate Degree Regulations & Procedures). Students may also take advantage of federal-provincial programs such as the Second-Language Monitor program.

Year in Nice
A special year-long program in Nice, France, is offered to Guelph students at semester levels 5 and 6. All courses for which transfer credits have been arranged are credited at Guelph without the need for letters of permission; students pay only Guelph academic fees and are eligible for OSAP. For further information see the Head of French Studies.

Practicum Opportunity:
HUMN*3501/2 is available for those students wishing to participate in a practicum experience as part of the year abroad. The practicum must be a job or volunteer experience that contributes to the student's area of study and intended career. It must be approved in advance as a Letter of Permission by the Coordinator. A final report, written in the student's chosen language, is a requirement of this course.

Family and Child Studies (FCS)

Department of Family Relations and Applied Nutrition, College of Social and Applied Human Sciences.
Family and Child Studies is offered as a minor in the honours program. It is designed to provide students with an opportunity to pursue interdisciplinary studies which have a specific focus on human development over the life span and on the applied questions which relate to the needs of children and the functioning of families. Elective courses may be chosen to emphasize the family, the child, or a combination of the two. Students seeking counselling should consult with a departmental advisor in the Department of Family Relations and Applied Nutrition.

Minor (Honours Program)
A minimum of 5.00 credits is required, including:

FRHD*1010 [0.50]  Human Development
FRHD*1020 [0.50]  Couple and Family Relations
FRHD*2270 [0.50]  Development in Early and Middle Childhood
FRHD*3040 [0.50]  Parenting: Research and Applications
NUTR*1010 [0.50]  Nutrition and Society

A further 2.50 courses offered by the Department of Family Relations and Applied Nutrition (FRHD or NUTR*2050), of which at least 1.50 must be at the 3000 level or above including at least 0.50 at the 4000 level.

Note: where students have or plan to have credit for PSYC*2450, an alternative course FRHD*2270 must be selected, in consultation with the departmental advisor, from those offered under the Family Studies (FRHD) listings

French Studies (FREN)

School of Languages and Literatures, College of Arts.
All language courses carry 0.50 credit. Please note that students with Ontario Grade 12 credit or its equivalent in French are not normally admitted into FREN*1100. Francophone students may start the program with second-year courses conditional upon approval by the Faculty Advisor. Students majoring in French are advised to take elective courses in another Romance language and in Latin. It is also recommended that students include CLAS*1000 and LNG*1000 among the electives in order to derive the maximum benefit from their studies. Except where stated otherwise, literary texts are, at all levels, studied in the original language. Students registering in French courses are expected to have the appropriate academic background.

Studies in Quebec or Abroad
The French program encourages students to spend 1 or 2 semesters in a French-speaking province or country, or to pursue their studies in an immersion program at the university level. Credit for programs of study successfully completed may be applied towards the University of Guelph degree requirements. Requests should be addressed well in advance of registration to the Director of the School of Languages and Literatures. A letter of permission is required (see the Section VIII—Undergraduate Degree Regulations & Procedures). Students may also take advantage of federal-provincial programs such as the Second-Language Monitor program.

Year in Nice
A special year-long program in Nice, France, is offered to Guelph students at semester levels 5 and 6. All courses for which transfer credits have been arranged are credited at Guelph without the need for letters of permission; students pay only Guelph academic fees and are eligible for OSAP. For further information see the Head of French Studies.
**Major (Honours Program)**

A minimum of 9.00 credits in Geography is required, including:

- GEOG*1200 [0.50] Society and Space
- GEOG*1220 [0.50] Human Impact on the Environment
- GEOG*1300 [0.50] Introduction to the Biophysical Environment
- GEOG*2000 [0.50] Geomorphology
- GEOG*2110 [0.50] Climate and the Biophysical Environment
- GEOG*2210 [0.50] Environment and Resources
- GEOG*2230 [0.50] Economic Geography
- GEOG*2260 [0.50] Applied Social Geography
- GEOG*2460 [0.50] Analysis in Geography
- GEOG*2480 [0.50] Mapping and GIS
- GEOG*3480 [0.50] GIS and Spatial Analysis
- GEOG*3490 [0.50] Contemporary Geographic Thought

3.00 additional credits in Geography at the 3000 level or above including at least 1.50 credits at the 4000 level.

**Minor (Honours Program)**

A minimum of 5.00 credits in Geography is required, including:

Two of:

- GEOG*1200 [0.50] Society and Space
- GEOG*1220 [0.50] Human Impact on the Environment
- GEOG*1300 [0.50] Introduction to the Biophysical Environment

Two of:

- GEOG*2000 [0.50] Geomorphology
- GEOG*2110 [0.50] Climate and the Biophysical Environment
- GEOG*2210 [0.50] Environment and Resources
- GEOG*2230 [0.50] Economic Geography
- GEOG*2260 [0.50] Applied Social Geography

3.00 credits in Geography at the 3000 level and including at least one course at the 4000 level.

**German (GERM)**

**School of Languages and Literatures, College of Arts.**

All language courses carry 0.50 credit. Students with one year of high school German or equivalent may not be admitted into GERM*1100. Students with OAC German may not be admitted into GERM*1100 and GERM*1110. Students with OAC German credit or its equivalent may be admitted into GERM*1110 only with the approval of the department. All language students are strongly advised to include CLAS*1000 and LING*1000 among their electives in order to derive the maximum benefit from their studies. Except where stated otherwise, literary texts are, at all levels, studied in the original language. Students registering in these courses will be expected to have the appropriate knowledge.

**Study Abroad**

The School of Languages and Literatures encourages students in the German program to spend 1 or 2 semesters in a German speaking country to continue their studies at the University level. Credit for programs of study successfully completed may be applied towards the University of Guelph degree requirements. Requests should be addressed well in advance to either the department or a particular section of the department. A letter of permission is required (see the Section VIII—Undergraduate Degree Regulations & Procedures).

**Minor (Honours Program)**

A minimum of 5.00 credits in German is required, including:

- GERM*2240 [0.50] Germany Through the Ages
- GERM*2490 [0.50] Intermediate German I
- GERM*2500 [0.50] Intermediate German II
- GERM*2560 [0.50] Themes in German Literature/Culture
- GERM*2590 [0.50] Classics of German Literature
- GERM*3500 [0.50] Advanced German

2.00 credits from (GERM*1100 or GERM*1110), GERM*2400, GERM*3020, GERM*3420, GERM*3430, GERM*3450, GERM*3530

Note that for students beginning with GERM*1100 or GERM*1110 a maximum of 2.50 language credits is allowed. For students with OAC German or equivalent, a maximum of 2.00 language credits is allowed. Language courses beyond the 1000 level include GERM*2490, GERM*2500, GERM*3500, GERM*3530.

Students enrolled in the German program must contact the School of Languages and Literatures for an up-to-date sequence of course offerings.

**Individual Studies (IS)**

**Interdisciplinary Program.**

B.A. Counselling Office, Room 130, MacKinnon Building, Ext. 52140.

Honours B.A. students have the option of doing an Individual Studies Major. Students in the Individual Studies Major have the opportunity to determine the goals and methods of their studies. Areas of study can include courses in any of the colleges and where the University of Guelph has faculty expertise to assist students. Students are encouraged to develop an interdisciplinary perspective, and to explore the methods of inquiry which provide depth of knowledge in a specific subject.

A student submitting a proposal for the Individual Studies Major must submit the complete proposal to the B.A. Program Counsellor before the third week of classes of semester four. The B.A. Program Committee will consider proposals once, and will approve, approve with revisions, or deny the proposal. Proposals cannot be resubmitted.

Proposals will not be considered unless they articulate a detailed rationale for a coherent program of studies that is significantly different from any existing major and minor combination at the University of Guelph, and unless the proposal meets the following criteria:

- a. minimum of 9.00 credits
- b. minimum of 4.00 credits at the 3000 level and above, including at least 1.00 credit at the 4000 level
- c. minimum of 1.00 credit in methods and/or theory
- d. maximum of 1.50 credits at the 1000 level
- e. a senior level Directed Readings or Special Project course must be completed. When appropriate, the Committee will identify a faculty member as the supervisor for a student's course of study.

A student wishing to submit a proposed program of studies for the Individual Studies Major must prepare a proposal that will include the following:

- a. a clear statement of theme or areas of study
- b. a clear statement of the contribution of the major to a post-graduation field of work or study
- c. a clearly set out rationale for inclusion of the specific courses and how they relate to or develop the theme or areas of study
- d. a list of required "core" courses and "restricted electives" following the above criteria.

When proposing core and restricted elective credits, students should keep in mind the prerequisites for their desired 3000 and 4000 level courses.

**History (HIST)**

**Department of History, College of Arts.**

Courses marked (H) are designated as honours courses. Students in a general program wishing to take these must obtain the permission of instructors concerned. All other courses may be taken by both general and honours students. Students wishing to take a 3000 level course must have pass standing in at least 5.00 credits in university courses.

Students wishing to take a 4000 level course must have pass standing in at least 10.00 university credits. Access to all 4000 level history courses is restricted to students in the B.A. Honours program with at least a 70% average in all history course attempts. Students should note the prerequisite requirements of upper level courses in planning their individual programs.

Students entering semester 1 are advised to choose from 1000 level courses. Second semester students wishing to take an advanced level History course should select that course from the History core.

**Core Requirements**

- a. HIST*1010, HIST*2450, HIST*2601/2
- b. 0.50 credit from each of Pre-Modern and Third World/Thematic course lists (a list of courses for each of these designations is available in the Department of History.)

**Area of Concentration (General Program)**

A minimum of 5.00 credits in History is required, including:

- a. at least 1.50 credits in History must be at the 3000 level (excluding HIST*3470 and HIST*3970)
- b. students should take the History Core Requirements

**Major (Honours Program)**

A minimum of 8.00 credits in History courses is required, including:

- a. the History Core Requirements
- b. 5.00 additional credits in History including 1.00 at the 4000 level (excluding HIST*4470 and HIST*4970 ) and an additional 0.50 credit at the 4000 level which may include either HIST*4470 or HIST*4970

**Minor (Honours Program)**

A minimum of 5.00 credits in History is required, including:

- a. the History Core Requirements
- b. 2.00 other credits in History including 1.00 at the 4000 level

**Note:** With the permission of the department, students may select as part of their program 0.50 credit outside the History Department such as ECON*2420 or ECON*3730.

**B.A. Counselling Office, Room 130, MacKinnon Building, Ext. 52140.**

Honours B.A. students have the option of doing an Individual Studies Major. Students in the Individual Studies Major have the opportunity to determine the goals and methods of their studies. Areas of study can include courses in any of the colleges and where the University of Guelph has faculty expertise to assist students. Students are encouraged to develop an interdisciplinary perspective, and to explore the methods of inquiry which provide depth of knowledge in a specific subject.

A student submitting a proposal for the Individual Studies Major must submit the complete proposal to the B.A. Program Counsellor before the third week of classes of semester four. The B.A. Program Committee will consider proposals once, and will approve, approve with revisions, or deny the proposal. Proposals cannot be resubmitted.

Proposals will not be considered unless they articulate a detailed rationale for a coherent program of studies that is significantly different from any existing major and minor combination at the University of Guelph, and unless the proposal meets the following criteria:

- a. minimum of 9.00 credits
- b. minimum of 4.00 credits at the 3000 level and above, including at least 1.00 credit at the 4000 level
- c. minimum of 1.00 credit in methods and/or theory
- d. maximum of 1.50 credits at the 1000 level
- e. a senior level Directed Readings or Special Project course must be completed. When appropriate, the Committee will identify a faculty member as the supervisor for a student's course of study.

A student wishing to submit a proposed program of studies for the Individual Studies Major must prepare a proposal that will include the following:

- a. a clear statement of theme or areas of study
- b. a clear statement of the contribution of the major to a post-graduation field of work or study
- c. a clearly set out rationale for inclusion of the specific courses and how they relate to or develop the theme or areas of study
- d. a list of required "core" courses and "restricted electives" following the above criteria.

When proposing core and restricted elective credits, students should keep in mind the prerequisites for their desired 3000 and 4000 level courses.
Note: Students undertaking the Individual Studies Major must fulfill the requirements of the B.A. Honours Program as set out in Section X. The B.A. Program Counsellor is the academic counsellor. The Individual Studies designation will appear on the student's transcript upon graduation, but the title or subject of the major will not.

Information Systems and Human Behaviour (ISHB)

Interdisciplinary Program.
As computers and communications play progressively more subtle and significant roles in society, this program of study brings together the elements of 3 disciplines to provide students with an understanding of technical, behavioural and social aspects of information technology. This program of study is a co-operative effort of the Department of Computing and Information Science, Department of Psychology, and Department of Sociology and Anthropology. Students in this program will be advised by the program coordinator in the Department of Psychology.

Major (Honours Program)

Computing and Information Science Courses

CIS*1500 [0.50] Introduction to Programming
CIS*1910 [0.50] Discrete Structures in Computing I
CIS*2430 [0.50] Object Oriented Programming
CIS*2500 [0.50] Intermediate Programming
CIS*2520 [0.50] Data Structures
CIS*2750 [0.75] Software Systems Development and Integration
CIS*2910 [0.50] Discrete Structures in Computing II
CIS*3530 [0.50] Data Base Systems and Concepts
CIS*3750 [0.75] System Analysis and Design in Applications
CIS*4300 [0.50] Human Computer Interaction

Psychology Courses

PSYC*1100 [0.50] Principles of Behaviour
PSYC*1200 [0.50] Dynamics of Behaviour
PSYC*2360 [0.50] Introductory Research Methods
PSYC*2390 [0.50] Principles of Sensation and Perception
PSYC*2650 [0.50] Cognitive Psychology
PSYC*3080 [0.50] Organizational Psychology
0.50 elective from a 4000 level Psychology course

One of:
SOAN*2040 [0.50] Globalization of Work and Organizations
PSYC*2310 [0.50] Introduction to Social Psychology

One of:
PSYC*3330 [0.50] Memory
PSYC*3340 [0.50] Psycholinguistics

Sociology and Anthropology Courses

ANTH*1150 [0.50] Anthropology
SOC*1100 [0.50] Sociology
SOC*2190 [0.50] Technology and Society
SOAN*3070 [0.50] Qualitative and Observational Methods

0.50 elective from a 4000 level course in ANTH, SOAN or SOC

Statistics Courses

STAT*2040 [0.50] Statistics I

International Development (ID)

Interdisciplinary Program

Faculty Advisor: Room 045 MacKinnon Building, ext 56175.
The International Development program provides students with an opportunity to pursue interdisciplinary and comparative studies of long-term change and international inequality. A broad coverage of the process of international development, from the perspectives of history and social science, forms the basis for more in-depth study on such topics as economic growth, the biophysical environment, gender, agriculture and rural life, politics and administration, and the Latin American region.
The primary participating departments are Economics, Geography, Political Science, and Sociology and Anthropology.

Area of Concentration (General Program)

A minimum of 5.00 credits is required, including:

ANTH*1150 [0.50] Anthropology
ECON*1050 [0.50] Introductory Microeconomics
ECON*1100 [0.50] Introductory Macroeconomics
ECON*2650 [0.50] Introductory Development Economics
GEOG*2030 [0.50] International Political Geography
GEOG*3050 [0.50] Development and the City
IDEV*2100 [0.50] International Development Studies
POLS*2080 [0.50] Development and Underdevelopment

One of:
ECON*3720 [0.50] History of the World Economy since 1850
ECON*3730 [0.50] Europe and the World Economy to 1914

One of:
POLS*3670 [0.50] Comparative Public Policy and Administration
POLS*3790 [0.50] The Political Economy of International Relations

Major (Honours Program)

A minimum of 12.00 credits is required, including the core of 7.00 credits and one of seven areas of emphasis for 5.00 credits. The areas are: Economic and Business Development, Gender and Development, Rural and Agricultural Development, Biophysical Environment and Development, Latin American Studies, Political Economy and Administrative Change, and Historical Perspectives in Development. Students must select an area of emphasis by the end of the 4th semester of university study.

International Development students are encouraged to acquire at least one foreign language and to work or study abroad.

With the permission of the International Development Studies faculty advisor, students may replace 0.50 credits from their area of emphasis with IDEV*3200, or 1.00 credits from their area of emphasis with IDEV*4190 and IDEV*4200.

Note: When selecting courses, students should keep in mind the prerequisites for their desired 3000 and 4000 level courses.

Core Requirements

ANTH*1150 [0.50] Anthropology
ECON*1050 [0.50] Introductory Microeconomics
ECON*1100 [0.50] Introductory Macroeconomics
GEOG*2030 [0.50] International Political Geography
POLS*3080 [0.50] Development and the City
IDEV*2100 [0.50] International Development Studies
IDEV*4500 [0.75] International Development Seminar
POLS*2080 [0.50] Development and Underdevelopment

One of:
IDEV*3010 [0.50] Case Studies in International Development

[0.50] credits from an approved semester abroad or exchange program

One of:
HIST*2930 [0.50] Women and Cultural Change
SOAN*2400 [0.50] Introduction to Gender Systems
WMST*1000 [0.50] Introduction to Women's Studies
WMST*2000 [0.50] Women and Representation

One of:
ECON*3720 [0.50] History of the World Economy since 1850
ECON*3730 [0.50] Europe and the World Economy to 1914

One of:
ANTH*2160 [0.50] Social Anthropology
REXT*4020 [0.50] Rural Extension in Change and Development

One of:
POLS*3670 [0.50] Comparative Public Policy and Administration
POLS*3790 [0.50] The Political Economy of International Relations

* students must complete IDEV*2100 before Semester 5
** students normally complete IDEV*4500 in their final year of study
*** ANTH*2160 is recommended for the Gender area of emphasis
**** SOC*2080 is recommended for the Rural area of emphasis

Areas of Emphasis

Biophysical Environment and Development

GEOG*1220 [0.50] Human Impact on the Environment
GEOG*1300 [0.50] Introduction to the Biophysical Environment
GEOG*2210 [0.50] Environment and Resources
GEOG*3210 [0.50] Management of the Biophysical Environment
GEOG*4210 [0.50] Environmental Resource Analysis

[0.50] additional credits at the 4000 level with a GEOG prefix

One of:
AGEC*2700 [0.50] Survey of Natural Resource Economics
ANTH*3670 [0.50] Indigenous Peoples: Global Context
ECON*2100 [0.50] Economic Growth and Environmental Quality
HIST*2250 [0.50] Environment and History
PHIL*2070 [0.50] Philosophy of the Environment
POLS*3370 [0.50] Environmental Policy Formation and Administration
SOC*2280 [0.50] Society and Environment

One of:
GEOG*2030 [0.50] Geomorphology
GEOG*2110 [0.50] Climate and the Biophysical Environment
GEOG*2460 [0.50] Analysis in Geography
GEOG*2480 [0.50] Mapping and GIS

Two of:
GEOG*3020 [0.50] Global Environmental Change
GEOG*3090 [0.50] Gender and Environment
GEOG*3110 [0.50] Biotic and Natural Resources
GEOG*3320 [0.50] Agriculture and Society
GEOG*3480 [0.50] GIS and Spatial Analysis
ECON*2740 [0.50] Economic Statistics * 

1.50 additional credits at the 2000-level or above in AGEC or ECON, at least 0.50 being in ECON and at least 1.00 being at the 3000-level or above. 

0.50 additional credits with a regional focus at the 2000-level or above in ANTH, GEOG, HIST, IDEV, ISS, POLS, SOAN or SOC. 

Two of: 
AGEC*4310 [0.50] Resource Economics 
ECON*4720 [0.50] Topics in Economic History 
ECON*4830 [0.50] Economic Development 
ECON*4880 [0.50] Topics in International Economics 
ECON*4890 [0.50] History of Economic Thought 
ECON*4900 [0.50] Special Study in Economics 
ECON*4930 [0.50] Environmental Economics 

* Entry into ECON*2740 requires one of MATH*1050, MATH*1080, MATH*1200.

Gender and Development 

ANTH*3400 [0.50] The Anthropology of Gender 
SOAN*2120 [0.50] Introductory Methods 
SOAN*4240 [0.50] Women and the Development Process 

[0.50] additional credits at the 4000 level in ANTH, SOAN, or SOC 

One of the following not taken as part of the core: 
ANTH*2160 [0.50] Social Anthropology 
SOAN*2040 [0.50] Globalization of Work and Organizations 
SOC*2080 [0.50] Rural Sociology 

One of: 
SOAN*3070 [0.50] Qualitative and Observational Methods 
SOAN*3120 [0.50] Quantitative Methods 

Two of: 
ANTH*3670 [0.50] Indigenous Peoples: Global Context 
ANTH*3690 [0.50] Anthropological Theory 
ANTH*3770 [0.50] Kinship and Social Organization 
ANTH*3840 [0.50] Seminar in Anthropology 
POLS*3160 [0.50] Women and Politics in the Third World 
SOAN*3100 [0.50] Comparative Perspectives on Families and Households 

Two of the following not taken as part of the core: 
ENGL*2880 [0.50] Women in Literature 
GEOG*3090 [0.50] Gender and Environment 
HIST*2800 [0.50] The History of the Modern Family 
HIST*2930 [0.50] Women and Cultural Change 
HIST*3580 [0.50] Women's History in Asia/Africa 
PHIL*2060 [0.50] Philosophy of Feminism 
POLS*3710 [0.50] Politics and Sexuality 

[0.50] credits in WMST

Historical Perspectives in Development 

HIST*2450 [0.50] Historical Methods 

0.50 additional credits with a regional focus at the 2000-level or above in ANTH, GEOG, IDEV, ISS, POLS, SOAN or SOC. 

One of: 
HIST*1100 [0.50] Europe in the Age of Expansion 
HIST*1150 [0.50] 20th-Century Global History 

Two of: 
HIST*2070 [0.50] World Religions in Historical Perspective 
HIST*2110 [0.50] The Atlantic World 1500-1850 
HIST*2250 [0.50] Environment and History 
HIST*2500 [0.50] Britain and the World Since 1600 
HIST*2800 [0.50] The History of the Modern Family 
HIST*2890 [0.50] History of the Islamic World 
HIST*2910 [0.50] History of Modern Asia 
HIST*2920 [0.50] Republican Latin America 
HIST*2960 [0.50] Topics in the History of Slavery 

Three of the following not taken as part of the core: 
ECON*2420 [0.50] Canadian Economic History 
ECON*3720 [0.50] History of the World Economy since 1850 
ECON*3730 [0.50] Europe and the World Economy to 1914 
HIST*3070 [0.50] Modern South Asia 
HIST*3150 [0.50] History and Culture of Mexico 
HIST*3270 [0.50] Revolution in the Modern World 
HIST*3310 [0.50] Disease and History 
HIST*3380 [0.50] British Imperialism in Asia and Africa 
HIST*3410 [0.50] The History of Pre-Colonial Africa 
HIST*3430 [0.50] Topics in Environment and Society 

Rural and Agricultural Development 

SOAN*2120 [0.50] Introductory Methods 

[0.50] additional credits at the 3000 or 4000 levels in AGR, CROP, ENVB, GEOL, HORT, SOIL or any biophysical course in GEOG. 

1.00 additional credits with a regional focus at the 2000 or 3000 level in HIST or POLS, at least 0.50 being in POLS. 

Two of: 
POLS*2000 [0.50] Political Theory 
POLS*2100 [0.50] The State in Comparative Perspective 
POLS*2200 [0.50] International Relations 

One of the following not taken as part of the core: 
POLS*3160 [0.50] Women and Politics in the Third World 
POLS*3370 [0.50] Environmental Policy Formation and Administration 
POLS*3390 [0.50] Comparative Democratic Institutions 
POLS*3440 [0.50] Corruption, Scandal and Political Ethics 
POLS*3670 [0.50] Comparative Public Policy and Administration 
POLS*3790 [0.50] The Political Economy of International Relations 

Two of the following not taken as part of the core: 
AGEC*4310 [0.50] Resource Economics 
ECON*2100 [0.50] Economic Growth and Environmental Quality 
ECON*2310 [0.50] Intermediate Microeconomics 
ECON*2720 [0.50] Business History 
ECON*3720 [0.50] History of the World Economy since 1850 
ECON*3730 [0.50] Europe and the World Economy to 1914 
ECON*4720 [0.50] Topics in Economic History 
ECON*4830 [0.50] Economic Development 
ECON*4890 [0.50] History of Economic Thought 

Latin American Studies 

SPAN*1110 [0.50] Intermediate Spanish 
SPAN*2000 [0.50] Spanish Language I 
SPAN*2010 [0.50] Spanish Language II 
SPAN*3500 [0.50] Spanish Grammar and Composition I 

One of: 
POLS*3650 [0.50] The Systematic Study of Politics 

SOAN*2120 [0.50] Introductory Methods 

Two of: 
HIST*2920 [0.50] Republican Latin America 
POLS*3080 [0.50] Politics of Latin America 
SPAN*2990 [0.50] Introduction to Hispanic Literary Studies 
SPAN*3080 [0.50] Spanish American Culture 

Choose Option A or B 

Option A: 
Any [1,50] additional credits in SPAN at the 3000 level or above, at least [0,50] being at the 4000 level. 

Option B: 
Any [1,50] additional credits in ANTH, ECON, GEOG, HIST, IDEV, ISS, POLS, SOAN, or SOC with a focus on Latin America or the Caribbean at the 3000 level or above, at least [0,50] being at the 4000 level. The faculty advisor for International Development maintains a list of appropriate courses.

Political Economy and Administrative Change 

POLS*3650 [0.50] The Systematic Study of Politics 
POLS*4750 [0.50] Theories and Problems in Comparative/International Politics 

[0.50] additional credits in POLS at the 4000 level 

[1.00] additional credits with a regional focus at the 2000 or 3000 level in HIST or POLS, at least 0.50 being in POLS. 

Two of: 
POLS*2000 [0.50] Political Theory 
POLS*2100 [0.50] The State in Comparative Perspective 
POLS*2200 [0.50] International Relations 

One of the following not taken as part of the core: 
POLS*3160 [0.50] Women and Politics in the Third World 
POLS*3370 [0.50] Environmental Policy Formation and Administration 
POLS*3390 [0.50] Comparative Democratic Institutions 
POLS*3440 [0.50] Corruption, Scandal and Political Ethics 
POLS*3670 [0.50] Comparative Public Policy and Administration 
POLS*3790 [0.50] The Political Economy of International Relations 

Two of the following not taken as part of the core: 
AGEC*4310 [0.50] Resource Economics 
ECON*2100 [0.50] Economic Growth and Environmental Quality 
ECON*2310 [0.50] Intermediate Microeconomics 
ECON*2720 [0.50] Business History 
ECON*3720 [0.50] History of the World Economy since 1850 
ECON*3730 [0.50] Europe and the World Economy to 1914 
ECON*4720 [0.50] Topics in Economic History 
ECON*4830 [0.50] Economic Development 
ECON*4890 [0.50] History of Economic Thought 

X. Degree Programs, Bachelor of Arts (B.A.)
Two of the following not taken as part of the core:

AGEC*4210 [0.50] World Agriculture and Economic Development
ANTH*3670 [0.50] Indigenous Peoples: Global Context
ANTH*3690 [0.50] Anthropological Theory
SOAN*3680 [0.50] Development/Underdevelopment
SOCI*3380 [0.50] Society and Nature

Any REXT courses at the 3000-level or above.

One of:

AGEC*2700 [0.50] Survey of Natural Resource Economics
AGRI*1250 [0.50] AgriFood System Trends and Issues
AGRI*2500 [0.50] Field Trip in International Agriculture
BOT*1200 [0.50] Plants and Human Use
ENVB*2010 [0.50] Food Production and the Environment
GEOG*1220 [0.50] Human Impact on the Environment
GEOG*1300 [0.50] Introduction to the Biophysical Environment
GEOG*1350 [0.50] Earth: Hazards and Global Change
SOIL*2120 [0.50] Introduction to Environmental Stewardship

One of:

GEOG*2000 [0.50] Geomorphology
SOIL*2010 [0.50] Soil Science *

* SOIL*2010 is needed for senior GEOL and SOIL courses relevant to this area.

**Minor (Honours Program)**

A minimum of 5.50 credits is required, including:

ANTH*1150 [0.50] Anthropology
ECON*1050 [0.50] Introductory Microeconomics
ECON*1100 [0.50] Introductory Macroeconomics
ECON*2650 [0.50] Introductory Development Economics
GEOG*2030 [0.50] International Political Geography
GEOG*3050 [0.50] Development and the City
IDEV*2010 [0.50] International Development Studies
POL*2080 [0.50] Development and Underdevelopment
SOAN*3680 [0.50] Development/Underdevelopment

One of:

ECON*3720 [0.50] History of the World Economy since 1850
ECON*3730 [0.50] Europe and the World Economy to 1914

One of:

POL*3670 [0.50] Comparative Public Policy and Administration
POL*3790 [0.50] The Political Economy of International Relations

**Italian (ITAL)**

School of Languages and Literatures, College of Arts.

All language courses carry 0.50 credit. Students with Year 4 or OAC Italian or their equivalent may be admitted into ITAL*1060 or ITAL*1070 only with the approval of the department. Students advancing in a Romance language (French, Spanish, Italian) are advised to take elective courses in a second Romance language and in Latin. All language students are strongly advised to include CLAS*1000 and LING*1000 among their electives in order to derive the maximum benefit from their studies. Except where stated otherwise, literary texts are, at all levels, studied in the original language. Students registering in Canadian literature courses are strongly advised to take a course in English literature.

Students approaching the end of their program are strongly advised to take, by arrangement with the departmental advisor, at least one of the Special Study in Economics courses, 3000 or 4000 level.

**Minor (Honours Program)**

A minimum of 6.00 credits is required, including:

a. ITAL*2060, ITAL*2070, ITAL*2350, ITAL*3060, ITAL*3150, ITAL*3280, ITAL*3530 (for E.S.P. students), ITAL*4900
b. at least one of ITAL*3950, ITAL*3960, ITAL*3970
c. at least 1.00 elective from List B and 1.00 further elective from List A or B

**List A - Italian Offerings**

ITAL*1060 [0.50] Introductory Italian I
ITAL*1070 [0.50] Introductory Italian II
ITAL*2060 [0.50] Intermediate Italian I
ITAL*2070 [0.50] Intermediate Italian II
ITAL*2350 [0.50] Contemporary Italian Literature
ITAL*3060 [0.50] Advanced Italian
ITAL*3150 [0.50] Medieval Italian Literature
ITAL*3280 [0.50] Renaissance Italian Literature
ITAL*3530 [0.50] Business Italian
ITAL*3950 [0.50] Topics in Italian Literature
ITAL*3960 [0.50] Topics in Italian Literature
ITAL*3970 [0.50] Topics in Italian Literature
ITAL*4900 [0.50] Research Paper in Italian Studies

**List B - Restricted Electives**

ARTH*2550 [0.50] Western Art: Italian Renaissance
ARTH*3550 [0.50] Lives: Aspects of High Renaissance Art
CLAS*2000 [0.50] Classical Mythology
HIST*2200 [0.50] The Medieval World
LAT*1100 [0.50] Preliminary Latin I
LAT*1110 [0.50] Preliminary Latin II
LAT*2000 [0.50] Latin Literature
LING*1000 [0.50] Introduction to Linguistics
PHIL*2210 [0.50] Critical Thinking
PHIL*2140 [0.50] History of Greek and Roman Philosophy
PHIL*3060 [0.50] Medieval Philosophy

**Marketing Management (MKMN)**

Department of Marketing and Consumer Studies, College of Social and Applied Human Sciences.

A Marketing Management minor is designed for students who wish to pursue interdisciplinary studies that consider consumers and the marketplace, consumers and their decision processes and behaviours, markets and their structure and various interactive relationships, and issues concerning market management.

**Minor (Honours Program)**

A minimum of 5.00 credits is required, including:

AGEC*2220 [0.50] Financial Accounting
ECON*1050 [0.50] Introductory Microeconomics
ECON*2200 [0.50] Industrial Relations
ECON*2310 [0.50] Intermediate Microeconomics
ECON*3200 [0.50] Economics of Industrial Relations
ECON*3560 [0.50] Theory of Finance

One of:

HTM*2200 [0.50] Organizational Behaviour I
ISS*2500 [0.50] Management in Organizations

2.00 restricted electives from the list of Restricted Electives, 1.00 of which must be at the 3000 or 4000 level

**Restricted Electives**

AGEC*4360 [0.50] Marketing Research
AGEC*4370 [0.50] Marketing Management
COST*2020 [0.50] Information Management
COST*3020 [0.50] Services & Retail Marketing
COST*3030 [0.50] Research Methods
COST*3040 [0.50] Business and Consumer Law
COST*3100 [0.50] Economic Behaviour of Households
COST*3600 [0.50] Consumer Information Processes
COST*4050 [0.50] Consumer, Business and Government Relations
ECON*2200 [0.50] Industrial Relations
ECON*3130 [0.50] Intermediate Macroeconomics
ECON*2720 [0.50] Business History
ECON*3200 [0.50] Economics of Industrial Relations
ECON*3560 [0.50] Theory of Finance

One of:

ECON*2740 [0.50] Economic Statistics
STAT*2060 [0.50] Statistics for Business Decisions

**Mathematical Economics (MAEC)**

Department of Economics, College of Social and Applied Human Sciences.

Most economic theory rests on explicit, formal, mathematical and/or statistical foundations. This specialization articulates and emphasizes these interactions. It is most suitable for students who either have, or wish to develop, a strong analytical background.

**Note:** Students approaching the end of their program are strongly advised to take, by arrangement with the departmental advisor, at least one of the Special Study in Economics courses (ECON*4900, ECON*4910).

**Major (Honours Program)**

**Semester 1**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS*1500</td>
<td>0.50</td>
<td>Introduction to Programming</td>
</tr>
<tr>
<td>ECON*1050</td>
<td>0.50</td>
<td>Introductory Microeconomics</td>
</tr>
<tr>
<td>MATH*1200</td>
<td>1.00</td>
<td>Calculus I</td>
</tr>
</tbody>
</table>

**Semester 2**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON*1100</td>
<td>0.50</td>
<td>Introductory Macroeconomics</td>
</tr>
<tr>
<td>MATH*1210</td>
<td>1.50</td>
<td>Calculus II</td>
</tr>
</tbody>
</table>
Semester 3
- ECON*2310 [0.50] Intermediate Microeconomics
- ECON*2410 [0.50] Intermediate Macroeconomics
- STAT*2040 [0.50] Statistics I
- 1.00 electives

Semester 4
- ECON*3740 [0.50] Introduction to Econometrics
- 2.00 electives or restricted electives*

Semester 5
- ECON*3710 [0.50] Advanced Microeconomics
- 2.00 electives or restricted electives*

Semester 6
- ECON*3600 [0.50] Macroeconomics in an Open Economy
- ECON*3770 [0.50] Mathematical Economics and Game Theory
- 1.50 electives or restricted electives*

Semester 7
- ECON*4640 [0.50] Applied Econometrics I
- ECON*4710 [0.50] Advanced Topics in Microeconomics
- ECON*4870 [0.50] Mathematical Economics: Dynamics
- 1.00 electives or restricted electives*

Semester 8
- ECON*4810 [0.50] Advanced Macroeconomic Theory
- ECON*4900 [0.50] Special Study in Economics

One of:
- ECON*4840 [0.50] Applied Econometrics II
- MATH*3200 [0.50] Real Analysis
- STAT*4080 [0.50] Data Analysis
- STAT*4340 [0.50] Statistical Inference
- STAT*4350 [0.50] Applied Multivariate Statistical Methods
- STAT*4360 [0.50] Applied Time Series Analysis
- 1.00 electives

*at least 1.00 of the 4.00 restricted electives must be from Mathematics and 1.00 must be from Statistics. The remaining 2.00 can be from either subject area. Of the 4.00 credits, at least 1.00 must be at the 3000 level or above and the remaining 3.00 must be at the 2000 level or above.

Note: Courses from MATH or STAT will be allowed with the appropriate prerequisites, or by permission of the instructor.

Mathematics (MATH)
Department of Mathematics and Statistics College of Physical and Engineering Science.
Mathematics and Statistics have become crucial components in the understanding and exploration of more and more disciplines. Persons with a strong background in mathematical sciences have access to a broad range of rewarding opportunities. Within the B.A. program, the Department of Mathematics and Statistics offers areas of concentration, majors and minors, both in Mathematics and Statistics. The Mathematics programs are designed to provide considerable flexibility for students to pursue their own interests, whether they be in the concepts of "pure" mathematics or techniques and applications. As a result, these programs open up opportunities for careers in many sectors such as business, education, government, industry, or medicine.

Area of Concentration (General Program)
A minimum of 5.00 Mathematics credits is required, including:
- a. 4.00 credits in Mathematics, including at least 1.00 from courses at the 3000 level or above
- b. 1.00 additional credit in Mathematics, Statistics and/or Computing Science

Honours Programs
Students without 4U Advanced Function and Calculus or OAC Calculus should consult with the departmental advisor. Students without 4U Geometry and Discrete Mathematics or OAC Algebra and Geometry should take MATH*2150 and then MATH*2160.

Core Requirements for Honours
- MATH*1200 [0.50] Calculus I
- MATH*1210 [0.50] Calculus II
- MATH*2000 [0.50] Set Theory
- MATH*2160 [0.50] Linear Algebra I
- MATH*2200 [0.50] Advanced Calculus I

Note: For both a major and a minor, it is strongly recommended that PHIL*2110 be included as an elective and be taken as early as possible.

Major (Honours Program)
A minimum of 8.00 credits is required, including:
- a. the Mathematics core requirements
- b. MATH*2210
- c. MATH*3200
Area of Concentration (General Program)
A minimum of 6.00 Music credits is required, including:
   a. the Music core
   b. at least 1.00 Music credits at the 3000 level or above

Major (Honours Program)
A minimum of 8.00 Music credits is required, including:
   a. the Music core
   b. one of MUSC*2140, MUSC*2110, MUSC*2200
   c. one of MUSC*3020, MUSC*3030, MUSC*3840, MUSC*3850
   d. one of MUSC*3800, MUSC*3810
   e. MUSC*4401/2

Participation in Applied Music courses and/or performing ensembles is strongly recommended for all honours students. Students contemplating graduate studies in Music should consult music faculty early in their program.

Minor (Honours Program)
A minimum of 5.00 Music credits is required, including at least 2.00 Music credits at the 3000 or 4000 level.

Course Groups
Students who wish to concentrate in particular areas of Music should consider selecting one of the following course groups:

Jazz, Popular, and World Music Studies
MUSC*1180 [0.50] Musicianship I
MUSC*2140 [0.50] History of Jazz
MUSC*2150 [0.50] Music and Popular Culture
MUSC*2180 [0.50] Musicianship II
MUSC*3820 [0.50] Topics in Ethnomusicology
1.50 other music credits at the 3000 or 4000 level (MUSC*1250 and MUSC*2360 are highly recommended)
One of:
MUSC*2110 [0.50] Music of the Circum-Atlantic and the Americas
MUSC*2200 [0.50] Music of the Near and Far East
One of:
MUSC*2610 [0.50] Music History II: The Reformation to J.S. Bach
MUSC*2620 [0.50] Music History III: Classical and Romantic Eras

Theory and Analysis
MUSC*1180 [0.50] Musicianship I
MUSC*1250 [0.50] Melody and Counterpoint
MUSC*2360 [0.50] Tonal Harmony I
MUSC*2370 [0.50] Tonal Harmony II
1.50 other Music credits at the 3000 or 4000 level
One of:
MUSC*2610 [0.50] Music History II: The Reformation to J.S. Bach
MUSC*2620 [0.50] Music History III: Classical and Romantic Eras
MUSC*3630 [0.50] 20th Century Music
One of:
MUSC*3020 [0.50] Tonal Analysis
MUSC*3030 [0.50] Post-tonal Analysis

History and Literature
MUSC*1180 [0.50] Musicianship I
MUSC*1250 [0.50] Melody and Counterpoint
MUSC*2360 [0.50] Tonal Harmony I
2.00 other Music credits at the 3000 or 4000 level
Three of:
MUSC*2600 [0.50] Music History I: Chant to Josquin
MUSC*2610 [0.50] Music History II: The Reformation to J.S. Bach
MUSC*2620 [0.50] Music History III: Classical and Romantic Eras
MUSC*3630 [0.50] 20th Century Music
0.50 credits from one of the following 2 sets of 2 courses:
MUSC*2530 [0.25] Instrumental Ensembles I
MUSC*2540 [0.25] Instrumental Ensembles II

Organizational Behaviour (OBEH)
Department of Psychology, College of Social and Applied Human Sciences.
The study of behaviour and the behavioural processes of individuals and groups within organizations is an especially important focus for those interested in human welfare and productivity. The Minor in Organizational Behaviour is for students seeking to broaden their knowledge beyond their major area of study and may be of particular value for those interested in the dynamics of organizational structures within the private and/or public domains. Although this program should provide a meaningful complement for a significant number of Major options, the program might be of particular interest to those students considering a future management and/or business career.

Minor (Honours Program)
(May not be taken in combination with a Psychology Honours Major)
A minimum of 6.00 credits is required, including:

PSYC*1100 [0.50] Principles of Behaviour
PSYC*1200 [0.50] Dynamics of Behaviour
2.00 credits in 4 Psychology Core Courses, to include PSYC*2310
PSYC*2010 [0.50] Quantification in Psychology
PSYC*3060 [0.50] Occupational Health Psychology
PSYC*3070 [0.50] Psychology in Human Resource Management
PSYC*3080 [0.50] Organizational Psychology
PSYC*3250 [0.50] Psychological Measurement
0.50 additional credit in Psychology

Students should note the availability of courses PSYC*3900 and PSYC*3910 when considering potential Psychology electives which would fulfill this requirement. When selecting open electives for completion of the degree, students with this minor should consider selecting the following courses: HTM*4390 and SOAN*2040.

Note: Courses designated with (H) in Section XII--Course Descriptions are Honours level courses requiring for registration a cumulative average of at least 70% in all course attempts in Psychology.

Philosophy (PHIL)
Department of Philosophy, College of Arts.
The Department of Philosophy offers programs emphasizing the history of philosophy and the study of metaphysics, epistemology, ethics and logic. The requirements for the various Philosophy programs are designed to ensure a basic competence in the discipline while permitting varying degrees of flexibility. It is important that students discuss their programs with a departmental advisor in order to ensure that the best selection of elective Philosophy courses is made. This is especially important for students who are contemplating graduate work in Philosophy.

Students may take PHIL*1000, PHIL*1010 and PHIL*1050 but only one may be counted towards the minimum number of Philosophy courses required for a degree.

Area of Concentration (General Program)
A minimum of 5.00 credits in Philosophy is required, including:
   a. 1 of PHIL*2140, PHIL*2160, PHIL*3060, PHIL*3080, PHIL*3130, PHIL*3200
   b. 1 of PHIL*2110, PHIL*2130, PHIL*2180, PHIL*3180, PHIL*3190, PHIL*3420, PHIL*3910, PHIL*3920, PHIL*3930, PHIL*4360, PHIL*4370
   c. 1 of PHIL*2030, PHIL*2060, PHIL*2070, PHIL*2120, PHIL*2600, PHIL*3040, PHIL*3050, PHIL*3230, PHIL*4310, PHIL*4320, PHIL*4340
d. 3.50 additional credits in Philosophy

Note: Students must have at least 1.50 Philosophy credits at the 3000 or 4000 level.

Major (Honours Program)
A minimum of 8.50 credits is required, including:
   a. PHIL*2110, PHIL*2120, PHIL*2140, PHIL*2160, PHIL*3080
   b. two of PHIL*2180, PHIL*3180, PHIL*3190, PHIL*4360, PHIL*4370
   c. two of PHIL*2060, PHIL*3050, PHIL*3230, PHIL*4310, PHIL*4320, PHIL*4340
d. two of PHIL*2030, PHIL*2070, PHIL*2130, PHIL*2600, PHIL*3130, PHIL*3200, PHIL*3420, PHIL*3910, PHIL*3920, PHIL*3930
d. 3.00 additional credits in Philosophy

Note: Students must have at least 3.50 credits in Philosophy at the 3000 level or above, and at least 1.50 of these at the 4000 level.

Students planning to do graduate studies in philosophy should take PHIL*2110, PHIL*2120, PHIL*2140, PHIL*3080, PHIL*3130, PHIL*3200, PHIL*4800.
Minor (Honours Program)  
A minimum of 5.00 credits in Philosophy is required, including:

a. one of PHIL*2140, PHIL*2160, PHIL*3060, PHIL*3080  
b. one of PHIL*2110, PHIL*2180, PHIL*3180, PHIL*3190, PHIL*4360, PHIL*4370  
c. one of PHIL*2060, PHIL*2120, PHIL*3050, PHIL*3230, PHIL*4310, PHIL*4320, PHIL*4340  
d. one of PHIL*2030, PHIL*2070, PHIL*2130, PHIL*2600, PHIL*3130, PHIL*3200, PHIL*3420, PHIL*3910, PHIL*3920, PHIL*3930  
e. 3.00 additional credits in Philosophy  

Note: Students must have at least 3.50 credits in Philosophy at the 3000 level or above, and at least 1.50 of these at the 4000 level.

Political Science (POLS)  
Department of Political Science, College of Social and Applied Human Sciences.  
The Department of Political Science offers courses in the following areas: Theory and Analysis, Canada and the Americas, Public Policy and Administration, and Comparative/International Development. These areas are listed below to identify 3000 level courses that fulfill prerequisites for selected 4000 level courses (see course descriptions). A brochure describing each of these fields of study, and containing further course information, is available from the departmental office. The Department of Political Science also participates in several interdisciplinary programs, including European Studies and International Development Studies.

Students taking courses in Political Science may enrol initially in POLS*1150, POLS*1400, POLS*1500, the latter 2 courses providing overview and introductory treatments of particular interest to students who wish to take higher level courses in the department but who do not intend to specialize in the discipline. For students intending to pursue a general or honours specialization in Political Science, however, POLS*1150 is required. Courses at the 2000 level provide students with essential grounding in specific areas of the discipline and are normally prerequisite for enrolment in 3000 and 4000 level courses. Students in the honours program major are required to take POLS*3650. This course is also required for students in the honours program minor.

In addition to the requirements set out in the B.A. Program Regulations, the Department of Political Science requires that students pursuing general and honours programs successfully complete a core requirement of 2.50 credits and meet specific distribution requirements as follows:

Core Requirements  

a. POLS*1150, POLS*2000, POLS*2300  
b. POLS*2080 or POLS*2100  
c. POLS*2200 or POLS*2250  

Area of Concentration (General Program)  
A minimum of 5.00 credits in Political Science is required, including:

a. the Political Science core  
b. 2.50 additional credits, at least 1.50 of which must be at the 3000 level or above

Major (Honours Program)  
A minimum of 9.00 credits in Political Science is required, including:

a. the Political Science core  
b. POLS*3650  
c. at least 0.50 credit at the 3000 level in three of the four fields in the department  
d. 2.00 credits at the 4000 level, two of which may include the POLS*4970/POLS*4980 Honours Thesis **  

** Students interested in pursuing graduate or professional studies related to Political Science are encouraged to consider taking the POLS*4970/POLS*4980 Honours Thesis sequence. Interested students must obtain instructor consent in order to register for this option.

Minor (Honours Program)  
A minimum of 5.00 credits in Political Science is required, including:

a. the Political Science core  
b. POLS*3650  
c. 0.50 credit at the 4000 level  

Choices for fulfillment of prerequisites for 4000 level courses (see course descriptions for corresponding requirements).

4000 Level Prerequisites  

Political Theory and Analysis  
POLS*3021/2 [1.00] History of Political Thought  
POLS*3180 [0.50] Political Inquiry and Analysis  
POLS*3280 [0.50] Modern Political Ideologies  
POLS*3710 [0.50] Politics and Sexuality  

Canada and the Americas  
POLS*3050 [0.50] Canadian Political Parties, Elections and Pressure Groups  
POLS*3110 [0.50] Politics of Ontario  
POLS*3130 [0.50] Law, Politics, and Judicial Process  
POLS*3200 [0.50] Canadian Provincial Politics  
POLS*3210 [0.50] The Constitution and Canadian Federalism  
POLS*3270 [0.50] Local Government in Ontario  
POLS*3330 [0.50] Politics and Trade Liberalization in the Americas  
POLS*3390 [0.50] Comparative Democratic Institutions  
POLS*3410 [0.50] Politics and Government in the United States  
POLS*3730 [0.50] The Americas  
POLS*3110 [0.50] Politics of Ontario  
POLS*3210 [0.50] The Constitution and Canadian Federalism  
POLS*3250 [0.50] Public Policy: Challenges and Prospects  
POLS*3300 [0.50] Governing Criminal Justice  
POLS*3370 [0.50] Environmental Policy Formation and Administration  
POLS*3440 [0.50] Corruption, Scandal and Political Ethics  
POLS*3470 [0.50] Business-Government Relations in Canada  
POLS*3670 [0.50] Comparative Public Policy and Administration  
POLS*3930 [0.50] Politics of the Agri-Food System  
POLS*3940 [0.50] Accountability and Canadian Government  
POLS*3000 [0.50] Politics of Africa  
POLS*3060 [0.50] Politics of the Middle East and North Africa  
POLS*3070 [0.50] The Politics of Asian Development  
POLS*3080 [0.50] Politics of Latin America  
POLS*3160 [0.50] Women and Politics in the Third World  
POLS*3330 [0.50] Politics and Trade Liberalization in the Americas  
POLS*3390 [0.50] Comparative Democratic Institutions  
POLS*3410 [0.50] Politics and Government in the United States  
POLS*3440 [0.50] Corruption, Scandal and Political Ethics  
POLS*3450 [0.50] European Governments and Politics  
POLS*3460 [0.50] Communism and Post-Communism  
POLS*3670 [0.50] Comparative Public Policy and Administration  
POLS*3730 [0.50] The Americas  
POLS*3790 [0.50] The Political Economy of International Relations  
POLS*3880 [0.50] Government and Politics of India  
POLS*3920 [0.50] Modern China  

The Department of Political Science offers a comprehensive counselling service for students in Political Science. As part of their program, the department also permits students to include 0.50 credit towards the general degree and 1.00 credit towards the honours degree from an approved list of courses offered by other departments.

Students are encouraged to consult with the departmental advisor for either of these programs about course selection, substitution of courses offered by other departments, or other matters.

Psychology (PSYC)  
Department of Psychology, College of Social and Applied Human Sciences.  
The discipline of Psychology is normally associated with the social sciences, the biological sciences, and the health professions. Specialization in Psychology at Guelph is available as a B.A. honours program major, a B.A. honours program major (co-op), and as an honours specialization in the B.Sc. program (described in the schedule of studies for B.Sc. programs). Through its different undergraduate programs, the Psychology Department attempts to provide a) a broad general education emphasizing psychological theory and methodology, with an empirical basis in course work (e.g. experiments and projects); b) an appropriate background in psychology for those who leave the University with an undergraduate degree to embark on careers in related areas (e.g. social services); and c) a sound preparation for graduate study in psychology. Students intending to apply for admission to graduate programs in Psychology are advised to refer to the Graduate Advisory Note.  

A cumulative average of at least 70% in all course attempts in Psychology is required to enter or continue in the Honours Psychology program major in semesters 4, 5, 6, 7, and 8.

Minors  
Students interested in a Minor in Psychology should examine the schedule of studies for the Minors in Cognitive Neuropsychology, Developmental Psychology, Educational Psychology, Organizational Behaviour, or Social Psychology. Within the BA Degree program, these are the only Honours Minors available from the Psychology Department. The department does not offer Psychology as an Honours BA Minor, or as an Area of Concentration in the General BA Program.

Note on Honours Courses  
Courses marked (H) are designed for students in a psychology honours program, the Information Systems and Human Behaviour program, the Developmental Psychology Minor program, the Educational Psychology Minor program, the Organizational Behaviour Minor program, the Social Psychology program, the Cognitive Neuropsychology Minor program, or Human Resources Management major of the Bachelor of Commerce program.
Courses designated with (H) are Honours level courses requiring registration at a cumulative average of at least 70% in all course attempts in Psychology, or registration in either the HRM Major or ISHB Major.

Core Requirements

Each of the Psychology programs requires that students complete at least 6 of the following 2000 level Psychology courses (3.00 credits). Psychology students are advised that they are normally expected to complete at least four 2000 level Psychology core courses prior to attempting any 3000 level Psychology courses. However, students should take the 3000 level methodology courses PSYC*3320(H), PSYC*3370(H) and PSYC*3380 (H) as early as possible, even though 4 core courses may not have been taken.

PSYC*2310 [0.50] Introduction to Social Psychology
PSYC*2330 [0.50] Principles of Learning
PSYC*2390 [0.50] Principles of Sensation and Perception
PSYC*2410 [0.50] Behavioural Neuroscience I
PSYC*2450 [0.50] Introduction to Developmental Psychology
PSYC*2650 [0.50] Cognitive Psychology
PSYC*2740 [0.50] Personality

6 of the 2000 level Psychology core courses listed above

PSYC*2010 [0.50] Quantitative in Psychology
PSYC*2360 [0.50] Introductory Research Methods
PSYC*3250 [0.50] Psychological Measurement
PSYC*3320 [0.50] Statistical Principles in Psychological Research
PSYC*3330 [0.50] Personality
PSYC*3380 [0.50] Introduction to Developmental Psychology

1.50 additional credits at the 3000 level or above (Students electing to take PSYC*3370 and PSYC*3380 will need to select only 0.50 additional credit at the 3000 level or above in order to satisfy this requirement.) (see Graduate Advisory Note).

1.50 additional psychology credits at the 4000 level (See Graduate Advisory Note).

Notes:

1. PSYC*2010 should normally be completed by the end of semester 3
2. PSYC*2360 should normally be completed by the end of semester 4
3. PSYC*3320 SHOULD NORMALLY BE COMPLETED BY THE END OF SEMESTER 4.

4. NOTE: that PSYC*3320 is a prerequisite for PSYC*3370 and PSYC*3380 and that PSYC*3320 is an (H) designated course. 

Note: The regulations of the B.A. program govern the number of credits that must be taken at the 3000 level or above (see B.A. Program Regulations). With permission of the Psychology Department PRIOR to course selection, up to 1.00 non-psychology credit that would enhance the student's studies in Psychology, especially in preparation for post-graduate work, may be credited towards the total number of credits required for graduation in the honours program major in Psychology.

Graduate Advisory Note: Most graduate programs require the student to have at least a B+ average in order to be considered for admission. Students contemplating graduate work in Psychology are strongly advised to complete the major by completing 0.50 elective credit at the 3000 level or above and 0.50 elective credit at the 4000 level beyond PSYC*4870 and PSYC*4880 which would otherwise satisfy the 3000-4000 level elective requirement for the major.

These students are encouraged to complete the Psychology major as follows:

a. PSYC*1100 and PSYC*1200
b. 6 of the 2000 level Psychology core courses
c. PSYC*2010 and PSYC*3320
d. PSYC*2360 and PSYC*3370 and PSYC*3380
e. an additional 0.50 credit in Psychology at the 3000 level or above
f. PSYC*3250
g. PSYC*4370 or PSYC*4900
h. 0.50 elective at the 4000 level
i. PSYC*4870 plus PSYC*4880

Students should note that an Honours Thesis is normally taken as a Fall-Winter sequence worth the equivalent of 1.50 credits toward the 20.00 credit Honours B.A. degree requirements.

Psychology (Co-op) (PSYC:C)

Department of Psychology, College of Social and Applied Human Sciences.

Co-operative Education formally integrates the student's academic study with 3 work terms (COOP*1000, COOP*2000, COOP*3000) in co-operating employer organizations. The Co-op program is offered as a B.A. honours program major degree taken as one of two major options combined with 3 work terms. One of the options is recommended for Co-op students expecting to apply for admission to graduate studies in Psychology. (See Graduate Advisory Note.)

All Co-op students are strongly advised to complete the B.A. requirements by including in their program 3 or more courses from the listing of courses under Business Administration, to ensure that they have 1 or more courses in computer science, accounting and management, or organizational behaviour. (Business Administration is also available as a minor.) Although not required, Co-op students are strongly encouraged to select a minor as part of the program.

Depending on career aspirations, students should have a good working knowledge of one or more of the following before their first work semester: psychological measurement, quantitative methods, computer science, accounting and management, or organizational behaviour.

The first work term normally follows 3 or 4 semesters of academic study (see Section X-Co-operative Education Programs). Students must be eligible to continue in the Honours Psychology program in order to remain in the Co-op program.

Admission to the Co-op program is limited and will be based on academic background. Admission will normally be considered only at semester 1 entry or during semester 2 when the student selects courses for semester 3.

Note: Courses designated with (H) in Section XII--Course Descriptions are Honours level courses requiring registration at a cumulative average of at least 70% in all course attempts in Psychology.

Major (Honours Program) - Stream A

The following Co-op schedule of studies is for students not intending to apply for admission to graduate programs in Psychology (includes 3 work terms).

Note: When selecting core and elective credits the student should keep in mind the prerequisites for their desired 3000 and 4000 level courses. When selecting courses beyond Psychology the student should keep in mind both their second specialization and courses appropriate for potential work-term placements.

Semester 1 - Fall
PSYC*1100 [0.50] Principles of Behaviour
PSYC*1200 [0.50] Dynamics of Behaviour
1.50 electives*

Semester 2 - Winter
COOP*1100 [0.00] Introduction to Co-operative Education
PSYC*2010 [0.50] Quantification in Psychology
0.50 Psychology core***
1.50 electives*

Summer Semester

Optional, however completion of semester 3 requirements NOW would allow for additional flexibility in the scheduling of future work terms (see also optional schedule below for students intending to apply for graduate programs).

Semester 3 - Fall
PSYC*3320 [0.50] Statistical Principles in Psychological Research
1.50 Psychology core***
0.50 elective*

Winter Semester

COOP*1000 [0.00] Co-op Work Term I

Semester 4 - Summer
1.00 Psychology core
1.50 electives****

Fall Semester
COOP*2000 [0.00] Co-op Work Term II

Semester 5 - Winter
PSYC*2360 [0.50] Introductory Research Methods
PSYC*3250 [0.50] Psychological Measurement
0.50 Psychology credit at the 3000 or 4000 level**
1.00 elective

Summer Semester

COOP*3000 [0.00] Co-op Work Term III
PSYC*4910 [0.50] Co-operative Education Project I

Semester 6 - Fall
1.00 Psychology elective at the 3000 or 4000 level**
1.50 electives

Semester 7 - Winter
1.00 Psychology elective at the 3000 or 4000 level**
1.50 electives

Semester 8 - Summer*****
2.00 electives

* B.A. distribution requirements should be satisfied within the first 4 semesters
** at least two of these Psychology courses must be at the 4000 level
Major (Honours Program) - Stream B

The following Co-op schedule of studies is recommended for those students intending to apply for graduate work in Psychology (includes 3 work terms and 18 Psychology courses).

Semester 1 - Fall
PSYC*1100 [0.50] Principles of Behaviour
PSYC*1200 [0.50] Dynamics of Behaviour
1.50 electives*

Semester 2 - Winter
COOP*1100 [0.00] Introduction to Co-operative Education
PSYC*2010 [0.50] Quantification in Psychology
1.00 Psychology core (other than PSYC*2310 or PSYC*2740)
1.00 electives*

Semester 3 - Summer
PSYC*2310 [0.50] Introduction to Social Psychology
PSYC*2740 [0.50] Personality
1.50 elective*

Semester 4 - Fall
PSYC*2360 [0.50] Introductory Research Methods
PSYC*3320 [0.50] Statistical Principles in Psychological Research
1.00 Psychology core
0.50 elective*

Winter Semester
COOP*1000 [0.00] Co-op Work Term I

Summer Semester
COOP*2000 [0.00] Co-op Work Term II

Semester 5 - Fall
PSYC*3370 [0.50] Experimental Design and Analysis
2.00 electives*

Semester 6 - Winter
PSYC*3250 [0.50] Psychological Measurement
PSYC*3380 [0.50] Non-experimental Research Methods
1.50 electives*

Summer Semester
Optional

Fall Semester**
COOP*3000 [0.00] Co-op Work Term III
One of:
PSYC*4910 [0.50] Co-operative Education Project I
0.50 PSYC*

Semester 7 - Winter**
PSYC*4870 [0.50] Honours Thesis I
2.00 electives*

Semester 8 - Summer
PSYC*4880 [1.00] Honours Thesis II
1.00 elective*

*at least 1.00 of the elective credits in semester 5, 6, 7, or 8 must be a 3000 level or above Psychology elective (and include either PSYC*4370 or PSYC*4900).

**the schedule for COOP*3000 and semester 7 requirements can be exchanged with the schedule for COOP*3000 and semester 8 requirements can be exchanged

Electives

The remaining credits required for the minor must be selected from the following list. However, students are strongly advised to consult with the departmental advisor before choosing electives.

- REXT*4100 [0.50] Leadership Development in Rural Organization
- REXT*3060 [0.50] International Communication
- REXT*3100 [0.50] Teaching and Learning in Non-Formal Education
- REXT*4020 [0.50] Rural Extension in Change and Development
- REXT*4100 [0.50] Leadership Development in Rural Organization

Social Psychology (SPSY)

Department of Psychology, College of Social and Applied Human Sciences.

Social Psychology focuses on the social interactions and social relationships. Although this Minor was designed for students seeking to broaden their knowledge beyond their Major area of study, it may be of particular interest to students who are considering future careers in human service fields such as Social Work, Counselling, Criminology, and Occupational Therapy. The program may also be of special interest to students associated with the Collaborative Diploma Program in Public/Private Sector Administration.

Minor (Honours Program)

(May not be taken in combination with a Psychology Honours Major)

A minimum of 6.00 credits is required, including:
- PSYC*1100 [0.50] Principles of Behaviour
- PSYC*1200 [0.50] Dynamics of Behaviour
- PSYC*3310 [0.50] Applied Social Psychology

2.50 credits in 5 Psychology Core Courses to include PSYC*2310, PSYC*2450
0.50 credit in a Psychology elective (it is recommended that this elective be chosen from the list of seven restricted electives below)

1.50 credits from three of the following seven courses:
- PSYC*3070 [0.50] Psychology in Human Resource Management
- PSYC*3080 [0.50] Organizational Psychology
- PSYC*3450 [0.50] Social and Personality Development
- PSYC*3500 [0.50] Social Interactions
- PSYC*3520 [0.50] Police Psychology
- PSYC*3690 [0.50] Community Mental Health
- PSYC*4310 [0.50] Advanced Topics in Social Psychology

Note: Courses designated with (H) in Section XII--Course Descriptions are Honours level courses requiring for registration a cumulative average of at least 70% in all course attempts in Psychology.

Sociology (SOC)

Department of Sociology and Anthropology, College of Social and Applied Human Sciences.

The Department of Sociology and Anthropology offers three types of courses: sociology courses with the prefix SOC*; anthropology courses with the prefix ANTH*; and departmental courses with the prefix SOAN*. The departmental category of courses

a. ANTH*1150, SOAN*2111/2, SOAN*3070, SOAN*3120, SOAN*4500,
SOC*1100, SOC*2080, (ANTH*3690 or SOC*3310), SOC*3380, SOC*4210,
recognizes the fact that the disciplines of sociology and sociocultural anthropology have developed in tandem and it is possible to identify large areas of overlap and convergence in the work of practitioners both historically and in the present. Departmental courses include most of the core theory and methods courses as well as many elective courses. They contribute equally to the subject matter of sociology as well as the subject matter of sociocultural anthropology for purposes of the undergraduate programs of study in both disciplines. Please see the listings for all courses required for the Sociology program.

Note: the following courses may be used towards a sociology specialization: FRHD*3060 and PHIL*2180.

Courses will normally be offered in the semesters designated. For information on other semesters these courses will be offered and the semester those courses without designations will be offered, please check with the department. In addition to regularly scheduled courses, students may elect to do independent study. A student who wishes to do a reading course should first consult the professor with whom he/she wishes to work. Please note, a student is allowed a total of 1.00 credits only for reading courses.

Sociology credit may also be given for some Anthropology courses with the exception of ANTH*3840 through ANTH*4910 inclusive. See a Sociology/Anthropology Faculty Advisor for approval of substitutions.

Area of Concentration (General Program)

A minimum of 5.00 credits in Sociology and Anthropology is required, including:

- ANTH*1150 [0.50] Anthropology
- SOAN*2111/2 [1.00] Classical Theory
- SOAN*2120 [0.50] Introductory Methods
- SOC*1100 [0.50] Sociology
- 2.50 additional credits from the Department of Sociology and Anthropology, including at least 1.00 at the 3000 level

Major (Honours Program)

A minimum of 8.00 credits in Sociology and Anthropology is required, including:

- ANTH*1150 [0.50] Anthropology
- SOAN*2111/2 [1.00] Classical Theory
- SOAN*2120 [0.50] Introductory Methods
- SOAN*3120 [0.50] Quantitative Methods
- SOC*1100 [0.50] Sociology
- SOC*3310 [0.50] Contemporary Theory
- 4.00 additional credits from the Department of Sociology and Anthropology, including at least 1.50 at the 4000 level

Minor (Honours Program)

A minimum of 5.00 credits in Sociology and Anthropology is required, including:

- ANTH*1150 [0.50] Anthropology
- SOAN*2111/2 [1.00] Classical Theory
- SOAN*2120 [0.50] Introductory Methods
- SOC*1100 [0.50] Sociology
- 2.50 additional credits from the Department of Sociology and Anthropology, including at least 1.00 at the 3000 level or above

The following courses may be used toward a sociology specialization: FRHD*3060 and PHIL*2180.

Note: All Anthropology courses may be used for credit in Sociology except for ANTH*3840 through ANTH*4910 inclusive.

Spanish (SPAN)

School of Languages and Literatures, College of Arts.

All language courses carry 0.50 credit. Students with Year 4 (Grade 12) or OAC Spanish or their equivalent may be admitted into SPAN*1100 only with the approval of the School. Students with OAC Spanish or its equivalent may be admitted into SPAN*1110 only with the approval of the School. Students with native or near native fluency, spoken and written, normally begin language courses with SPAN*2000 and are allowed some flexibility in sequence of language courses. Such students should consult the coordinator before beginning Spanish studies. Students advancing in a Romance language (French, Spanish, Italian) are advised to take electives in a second Romance language and in Latin. All language students are strongly advised to include CLAS*1000 and LING*1000, among their electives in order to derive the maximum benefit from their studies. Students registering in these courses will be expected to have the appropriate knowledge.

Study Abroad

The School of Languages and Literatures encourages students in modern languages to spend 1 or 2 semesters in another country to study a particular language at the university level. Credit for programs of study successfully completed may be applied towards the University of Guelph degree requirements. Requests should be addressed well in advance to either the School or a particular section of the School. A letter of permission is required (see Section VIII—Undergraduate Degree Regulations & Procedures).

Area of Concentration (General Program)

A minimum of 5.00 credits in Spanish is required, including:

- a. 3.00 credits from SPAN*1100, SPAN*1110, SPAN*2000, SPAN*2110, SPAN*3500, SPAN*3530, SPAN*4500, SPAN*4520
- b. SPAN*2040, SPAN*2990, SPAN*3080
- c. 0.50 credit in literature

Major (Honours Program)

A minimum of 8.00 credit in Spanish is required, including:

- a. 3.00 credits from SPAN*1100, SPAN*1110, SPAN*2000, SPAN*2110, SPAN*3500, SPAN*3530, SPAN*4500, SPAN*4520
- b. seven literature courses

Note: Students intending to proceed to graduate studies should take SPAN*3170 and SPAN*4170

Minor (Honours Program)

A minimum of 5.50 credits in Spanish is required, including:

- a. 3.00 credits from SPAN*1100, SPAN*1110, SPAN*2000, SPAN*2110, SPAN*3500, SPAN*3530, SPAN*4500, SPAN*4520
- b. SPAN*2040, SPAN*2990, SPAN*3080
- c. 1.00 credit in literature

Note: Students in the Spanish program may include one of the following courses for credit in their program:

- HIST*2110 [0.50] The Atlantic World 1500-1850
- HIST*2920 [0.50] Republican Latin America
- POLS*3080 [0.50] Politics of Latin America

Any other substitution for required courses can only be made with the approval of the faculty advisor.

Statistics (STAT)

Department of Mathematics and Statistics, College of Physical and Engineering Science.

The discipline of Statistics is essential in the social sciences, biological sciences, physical sciences, and health professions. The specialization in Statistics emphasizes applications of statistical theory and methods to other disciplines and is available in the B.A. Honours Program as a major or minor and as an area of concentration in the General Program.

Students are encouraged to combine the study of statistics with another field. Statistical computing is a fundamental tool for the application of modern statistical methods. Students in these programs will develop skills in computer applications programming using such high-level languages as SAS and S-PLUS.

Area of Concentration (General Program)

A minimum of 5.00 credits in Statistics and Mathematics is required, including:

- no more than 1.00 credit from courses at the 1000 level
- b. 3.00 credits in statistics (STAT), 2.00 of which must be from courses at the 3000 level or above

Recommended Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credit</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH*1200</td>
<td>0.50</td>
<td>Calculus I</td>
</tr>
<tr>
<td>MATH*1210</td>
<td>0.50</td>
<td>Calculus II</td>
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<tr>
<td>MATH*2150</td>
<td>0.50</td>
<td>Applied Matrix Algebra</td>
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<tr>
<td>STAT*2040</td>
<td>0.50</td>
<td>Statistics I</td>
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<tr>
<td>STAT*2050</td>
<td>0.50</td>
<td>Statistics II</td>
</tr>
<tr>
<td>STAT*3100</td>
<td>0.50</td>
<td>Introductory Mathematical Statistics I</td>
</tr>
<tr>
<td>STAT*3110</td>
<td>0.50</td>
<td>Introductory Mathematical Statistics II</td>
</tr>
<tr>
<td>STAT*3240</td>
<td>0.50</td>
<td>Applied Regression Analysis</td>
</tr>
<tr>
<td>STAT*3320</td>
<td>0.50</td>
<td>Sampling Theory with Applications</td>
</tr>
</tbody>
</table>

Honours Programs

Students who major or minor in Statistics may not receive credit for the following courses unless taken to satisfy the requirements of another program:

- ECON*2740
- PSYC*2010
- PSYC*3320
- SOAN*3120

Major (Honours Program)

Students may enter this major in Semester 1 or any semester thereafter. A student wishing to declare the major must consult the Faculty Advisor. A minimum of 20.00 credits is required to complete the degree, with a minimum of 9.50 credits required as below to complete the major.

- 1.50 credits as follows:
  - CIS*1500 [0.50] Introduction to Programming
  - MATH*1200 [0.50] Calculus I
  - MATH*1210 [0.50] Calculus II

- 5.00 credits in Statistics and Mathematics as follows:
  - MATH*2130 [0.50] Numerical Methods
  - MATH*2250 [0.50] Advanced Calculus I
  - STAT*2040 [0.50] Statistics I
  - STAT*2050 [0.50] Statistics II
  - STAT*3100 [0.50] Introductory Mathematical Statistics I
  - STAT*3110 [0.50] Introductory Mathematical Statistics II
The majority of the cost of supplies must be borne by the student. In order to permit the work in both Studio Art and Art History. Specific requirements are listed below.

**Recommended Schedule of Studies for Major (Honours Program)**

**Semester 1**
- MATH*2200 [0.50] Advanced Calculus I
- STAT*2040 [0.50] Statistics I
  - One of:
    - MATH*2150 [0.50] Applied Matrix Algebra
    - MATH*2160 [0.50] Linear Algebra I
  - 1.00 electives**

**Semester 2**
- MATH*2130 [0.50] Numerical Methods
- STAT*2050 [0.50] Statistics II
  - 1.50 electives**

**Semester 3**
- MATH*2200 [0.50] Advanced Calculus I
- STAT*2040 [0.50] Statistics I
  - One of:
    - MATH*2150 [0.50] Applied Matrix Algebra
    - MATH*2160 [0.50] Linear Algebra I
  - 1.00 electives**

**Semester 4**
- MATH*2130 [0.50] Numerical Methods
- STAT*2050 [0.50] Statistics II
  - 1.50 electives**

**Semester 5**
- STAT*3100 [0.50] Introductory Mathematical Statistics I
- STAT*3240 [0.50] Applied Regression Analysis
- STAT*3320 [0.50] Sampling Theory with Applications
  - 1.00 elective**

**Semester 6**
- STAT*3110 [0.50] Introductory Mathematical Statistics II
- STAT*3210 [0.50] Experimental Design
  - 1.50 elective**

**Semester 7**
- 2.50 electives**

**Semester 8**
- 2.50 electives**
  * See “Semester One Requirements” for Bachelor of Arts programs.
**Electives must satisfy the following requirements:**
1. Electives must include at least 2.50 credits in Statistics at the 3000 or 4000 level, and an additional 0.50 credit in Statistics or Mathematics at the 2000 level or above.
2. At least 2.00 credits in Statistics must be at the 4000 level.
3. Electives plus core courses must include at least 7.00 credits at the 3000 or 4000 level.

**Minor (Honours Program)**
At least 5.00 credits in Statistics or Mathematics is required, including:

- MATH*1200 [0.50] Calculus I
- MATH*1210 [0.50] Calculus II
- STAT*2040 [0.50] Statistics I
- STAT*2050 [0.50] Statistics II
- STAT*3100 [0.50] Introductory Mathematical Statistics I
- STAT*3110 [0.50] Introductory Mathematical Statistics II
- STAT*3240 [0.50] Applied Regression Analysis

**Studio Art (SART)**

**School of Fine Art and Music, College of Arts.**
The School offers programs that allow for concentrated study in Art History or in Studio Art, or for a more balanced study in the two disciplines. Both programs, however, require work in both Studio Art and Art History. Specific requirements are listed below.

**Cost of Studio Supplies**
The majority of the cost of supplies must be borne by the student. In order to permit the University to subsidize this cost and to allow for savings through discount buying, some materials are obtained through the school by payment of a lab fee. The amount of the fee is established for each semester prior to registration.

**Student Counselling**
The students who elect to take a substantial number of credits in either Art History or Studio Art with the objective of graduate work are advised to obtain counselling from faculty regarding their choices. However, in general, it is important to know that graduate studies in Art History will usually require a reading knowledge of at least 2 languages other than English. German, French, Italian and Latin are among the most useful choices. Cognate electives in other disciplines in the College of Arts (such as History) will almost certainly prove an asset. A Studio career to the graduate level will normally require some education in all the traditional and contemporary media as well as an awareness of art theory.

**Core Requirements**

- ARTH*1220 [0.50] The Visual Arts Today
- ARTH*1520 [0.50] Art Historical Studies II
- SART*1050 [0.50] Integrated 2-D Media
- SART*1060 [0.50] Media Convergence

**Major (Honours Program)**
A minimum of 9.00 credits is required, including:
a. the Studio Art core
b. 2.00 additional credits in Studio Art, including at least 0.50 credit from List A and 0.50 from List B
c. 2.00 additional credits in Art History including:
  i. 0.50 credit in Canadian Art (ARTH*2060, ARTH*2490, ARTH*3010)
  ii. 0.50 credit in Western Art (ARTH*2150, ARTH*2280, ARTH*2540, ARTH*2550, ARTH*2950, ARTH*3100, ARTH*3150, ARTH*3200, ARTH*3540, ARTH*3550, ARTH*3640)
  iii. 0.50 credit in Modern and Contemporary Art (ARTH*2070, ARTH*2290, ARTH*2580, ARTH*2600, ARTH*3520, ARTH*3570)
  iv. 0.50 credit in Art Theory, Critical Methodology and Museology (ARTH*2120, ARTH*2480, ARTH*3780)
d. 3.00 additional credits in Studio Art or Art History

**Note:** at least 1.50 credits from the total of 9.00 credits must be taken in Studio Art or Art History at the 4000 level.

**Minor (Honours Program)**
A minimum of 6.00 credits is required, including:
a. the Studio Art core
b. 0.50 credit in Studio Art or Art History at the 4000 level
c. 1.50 additional credits in Art History, including:
  i. 0.50 credits in Canadian Art (ARTH*2060, ARTH*2490, ARTH*3010)
  ii. 0.50 credit in Modern and Contemporary Art (ARTH*2070, ARTH*2290, ARTH*2580, ARTH*2600, ARTH*3520, ARTH*3570)
d. 2.00 additional credits in Studio Art, including 0.50 credit from List A and 0.50 from List B

**List A**
- SART*2090 [0.50] Drawing I
- SART*2200 [0.50] Painting I
- SART*2460 [0.50] Introductory Printmaking I
- SART*2470 [0.50] Introductory Printmaking II
- SART*2610 [0.50] Photography I
- SART*2700 [0.50] Introduction to Computer Graphics
- SART*2710 [0.50] Drawing Graphics on the Computer
- SART*3090 [0.50] Drawing II
- SART*3200 [0.50] Painting II
- SART*3410 [0.50] Intaglio
- SART*3450 [0.50] Lithography
- SART*3470 [0.50] Photo-Printmaking
- SART*3750 [0.50] Photography II
- SART*4090 [0.50] Drawing III
- SART*4100 [0.50] Drawing IV
- SART*4200 [0.50] Painting III
- SART*4210 [0.50] Painting IV
- SART*4230 [0.50] Special Topics in Painting
- SART*4410 [0.50] Experimental Printmaking
- SART*4450 [0.50] Advanced Printmaking
- SART*4700 [0.50] Photography III
- SART*4710 [0.50] Photography IV

**List B**
- SART*2300 [0.50] Sculpture I
- SART*2800 [0.50] Extended Media I
- SART*3300 [0.50] Sculpture II
Notes:
1. Students in the Art History Major or Minor cannot count more than 11.00 credits in Art History or 11.00 credits in Studio Arts towards their honours degree.
2. Details of advanced standing for transfer students from the Ontario College of Art and Design (OCAD) can be found in the section on Admission Information.
3. In accordance with the B.A. program regulation limiting the number of credits to be taken in any subject area, OCAD graduates granted the maximum advanced standing of credits in Studio Arts will be limited to 2.00 additional credits in Studio Arts at the University of Guelph.
4. A cumulative average of at least 70% in all course attempts in Studio Arts and Art History is required in order to enter or continue in the Honours Studio Arts program.

Visual Arts of the Americas (VAA) (Minor)
School of Fine Art and Music.
The Minor program in Visual Arts of the Americas enables students to study the art history of Canada, the United States, and Central and South America as an integrated field where certain basic conditions are shared: the existence of aboriginal traditions persisting from the pre-conquest period, the confrontation of a variety of European, African and Asian cultural heritages, and a continuing post-colonial evolution producing hybrid cultural identities.

This program of study is designed as a complement to a significant number of Major specialization, suitable for any student wishing to broaden their knowledge beyond their Major area of study.

Minor (Honours Program)
(May not be taken in combination with Art History Honours Major).
A minimum of 5.00 credits is required, including:

a. 4.50 credits from List A
ARTH*1220 [0.50] The Visual Arts Today
ARTH*1510 [0.50] Art Historical Studies I
ARTH*1520 [0.50] Art Historical Studies II

b. 3.50 additional credits in Art History as follows:
ARTH*2480 [0.50] Introduction to Art Theory and Criticism
ARTH*3220 [0.50] Nationalism and Identity in Art
Two of:
ARTH*2050 [0.50] Arts of the Americas: Latin America
ARTH*2060 [0.50] Arts of the Americas: Aboriginal Perspectives
ARTH*2070 [0.50] Arts of the Americas: The USA
ARTH*2490 [0.50] Arts of the Americas: Canada
Two of:
ARTH*3010 [0.50] Americas: Canada
ARTH*3050 [0.50] Americas: Meso America
ARTH*3060 [0.50] Americas: Public Art
One of:
ARTH*4050 [0.50] Questions in the Americas I
ARTH*4060 [0.50] Questions in the Americas II

List A
WMST*1000 [0.50] Introduction to Women's Studies
WMST*2000 [0.50] Women and Representation

Women's Studies (WMST)
Interdisciplinary Program.
Women's Studies Office, College of Arts, Ext. 54344.
The Women's Studies program offers an interdisciplinary program that uses gender as its focus of analysis.

Area of Concentration (General Program)
A minimum of 5.00 credits is required, including:

a. 4.50 credits from List A
b. 0.50 additional credits from Lists A or B

Major (Honours Program)
A minimum of 8.00 credits is required, including:

a. 4.50 credits from List A
b. 3.50 additional credits from Lists A or B
At least 4.00 of these credits must be at the 3000 level or above.

Minor (Honours Program)
A minimum of 5.00 credits is required, including:

a. 4.50 credits from List A
b. 0.50 additional credits from Lists A or B

List A
WMST*3000 [0.50] Feminist Theory and Methods
WMST*3010 [0.50] Gender and Diversity
WMST*4010 [0.50] Seminar in Women's Studies
Two of:
ARTH*3780 [0.50] Gender and Art
ENGL*2880 [0.50] Women in Literature
HIST*2930 [0.50] Women and Cultural Change
PHIL*2060 [0.50] Philosophy of Feminism
PHIL*3210 [0.50] Women in the History of Philosophy
Two of:
ANTH*3400 [0.50] The Anthropology of Gender
GEOG*3090 [0.50] Gender and Environment
ISS*5420 [0.50] Women Social and Political Theorists
POLS*3710 [0.50] Politics and Sexuality
PSYC*3300 [0.50] The Psychology of Gender
SOAN*2400 [0.50] Introduction to Gender Systems

List B
ENGL*4220 [0.50] Special Topics in Women's Writings
FREN*3560 [0.50] Contemporary French Women's Writings
HIST*2800 [0.50] The History of the Modern Family
HIST*3020 [0.50] Sexuality and Gender in History
HIST*3570 [0.50] Women in Modern Europe
HUMN*3170 [0.50] Women, Virtue and Honour in Spanish Drama (In English)
SOAN*3100 [0.50] Comparative Perspectives on Families and Households
SOAN*4220 [0.50] Canadian Rural Women
SOAN*4240 [0.50] Women and the Development Process
WMST*3510 [0.50] Directed Readings in Women's Studies
WMST*3520 [0.50] Independent Workplace Learning in Women's Studies
WMST*4510 [0.50] Advanced Topics in Women's Studies
WMST*4520 [0.50] Advanced Topics in Women's Studies
An independent study or reading course on an appropriate topic from any subject area of the College of Arts or the College of Social and Applied Human Science may also be included in the program.
Bachelor of Arts and Sciences (B.A.S)

The University of Guelph offers an 8 semester (20.00 credits) honors program leading to a Bachelor of Arts and Sciences (B.A.S.) degree.

The Bachelor of Arts & Sciences program is designed for students who are motivated equally by the study of Arts/Social Sciences and the Sciences, and who find challenge and satisfaction in testing the traditional boundaries of study through undergraduate level interdisciplinary work. The program meets these objectives through a unique structure that accredits students in an Arts/Social Sciences core, a Sciences core, a Subject Area core of interdisciplinary humanities and sciences courses (ASCI*), and a minor in each of the Arts/Social Sciences and the Sciences (see below for choices of minors). The structure of the program ensures disciplinary rigour and breadth through completion of core requirements for a B.A.S. degree, concentration in two distinct minors, and concentration of learning in an academic cohort of B.A.S. students through the interdisciplinary ASCI courses in the B.A.S. core. This core is open only to students in the B.A.S. program

Program Information

Academic Counselling

The B.A.S. program counsellor assists students in the selection of minors, interpreting program and academic regulations, and with the selection of appropriate courses for chosen minors and distribution requirements. Students should consult the counsellor when experiencing particular difficulties affecting academic standing and progress through the program. Students are encouraged to check the B.A.S. program website regularly for course information and cross-listing of acceptable credits where appropriate.

Counselling on Minors

Academic departments offer the minors in the B.A.S. program and assign faculty advisors to assist students with academic planning (e.g., a faculty advisor in the History department handles queries about a minor in History). Students should consult the appropriate faculty advisor, along with the B.A.S. Program Counsellor, when declaring a minor or requiring advice on the completion of specialization requirements. The list of faculty advisors is available on the Undergraduate Academic Information Centre website: http://www.uoguelph.ca/uaic/students_faculty.shtml or contact the B.A.S. Program Counsellor for further information.

Continuation of Study

To be eligible to continue in the program, students must meet the requirements for Continuation of Study as noted in Section VIII--Undergraduate Degree Regulations & Procedures of this calendar (Schedules 1 and 2).

Conditions for Graduation

To qualify for the degree Bachelor of Arts and Sciences, the student must successfully complete a minimum of 20.00 credits as identified below. In addition, students must meet the continuation of study requirements at the time of graduation and have a 60.00% cumulative average.

Distribution Requirements

This program will require the completion of 20.00 credits as indicated below, with a maximum of 7.00 credits at the 1000 level. First year core courses may be counted towards the minors.

1. First Year Core - 4.00 credits

2. Subject Area Core - (ASCI) - 3.00 credits.

3. Arts/Social Science Minor - 5.00 credits.

4. Science Minor - 5.00 credits

5. Free Electives - 3.00 credits.

1. First-Year Core - 4.00 credits

Science Core - 2.00 credits including:
BIOL*1030 [0.50] Biology I
CHEM*1040 [0.50] General Chemistry I
One of:
MATH*1080 [0.50] Elements of Calculus I
MATH*1200 [0.50] Calculus I
One of:
PHYS*1000 [0.50] An Introduction to Mechanics
PHYS*1070 [0.50] Introductory Physics for Life Sciences
PHYS*1110 [0.50] Introductory Physics with Applications I

Arts and Social Science Core - 2.00 credits including:

a. 1.00 credit over at least 2 different subject areas in the College of Arts: ARTH - Art History; CLAS - Classical Studies; DRMA - Drama; ENGL - English; EURO - European Studies; FREN - French Studies; GERM - German Studies; GREK - Greek; HIST - History; HUMAN - Humanities; ITAL - Italian Studies; LAT - Latin Studies; LING - Linguistics; MUSC - Music; PHIL - Philosophy; SART - Studio Art; SPAN - Spanish Studies; WMST - Women's Studies

b. 1.00 credit over at least 2 different subject areas in the College of Social and Applied Human Sciences: ANTH - Anthropology; ECON - Economics; GEOG - Geography; IDEV - International Development Studies; ISS - Interdisciplinary Social Science;

POLS - Political Science; PSYC - Psychology; SOAN - Sociology and Anthropology; SOC - Sociology.

2. Subject Area Core - 3.00 credits

- 1.50 credits from:
  ASCI*1000 [0.50] Society and Science I: Historical Perspectives
  ASCI*1010 [0.50] Society and Science II: Current Issues
  ASCI*2000 [0.50] Modes of Inquiry and Communication Across Disciplines

- 0.50 credits from:
  ASCI*3000 [0.50] Arts and Sciences Community Project
  ASCI*3100 [0.50] Case Studies in Arts and Sciences Research

- 1.00 credits from:
  ASCI*4000 [0.50] Arts and Sciences Honours Seminar
  ASCI*4010 [0.50] Arts and Sciences Honours Research Seminar
  ASCI*4020 [0.50] Topics in Arts and Sciences Research
  ASCI*4030 [0.50] Topics in Arts and Sciences Research

Note: Of the 20.00 credits required for this program, 3.00 credits must be completed at the 3000 or 4000 level, and 2.00 credits at the 4000 level. This requirement is partially fulfilled by senior level courses in the Subject Core (ASCI*) requirements.

3. Arts/Social Sciences Minors - 5.00 credits

Minors available in the Arts/Social Sciences core (see B.A. program descriptions):
Anthropology
Art History
Art Theory and Criticism
Business Administration
Classical Languages
Classical Studies
Cognitive Neuropsychology
Criminal Justice & Public Policy
Developmental Psychology
Drama
Economics
Educational Psychology
English
Environmental Studies
Family & Child Studies
French Studies
Geography
German
History
International Development
Italian
Marketing Management
Museum Studies
Music
Organizational Behaviour
Philosophy
Political Science
Rural Extension Studies
Social Psychology
Sociology
Spanish
Studio Art
Visual Art of the Americas
Women's Studies

4. Science Minor - 5.00 credits

Minors available in the Science core (see B.Sc. program descriptions):
Biochemistry
Biography
Biotechnology
Chemistry
Computing & Information Science
Ecology
Food Science
Forest Science
Functional Foods & Nutraceuticals
5. Free Electives - 3.00 credits (maximum)

The program includes 3.00 free electives. Electives may be completed in any subject area. The number of free electives is reduced if a minor requires more than 5.00 credits.

This program includes 3.00 credits at the 3000 or 4000 level, including 2.00 credits at the 4000 level. This requirement is partially fulfilled by senior level courses in the Subject Area Core (ASCI) requirements.

A maximum of 7.00 credits at the 1000 level may be counted toward the 20.00 credit requirement.

Double Counting Rule

A maximum of 1.00 credits may be double-counted.

If a credit is double-counted towards both the first year core and one minor, it cannot be counted towards the second minor.
Bachelor of Bio-Resource Management Degree (B.BRM)

The University of Guelph, in collaboration with the regional campus at Ridgetown, offers a 20.00 credit program, normally completed over 8 semesters, leading to a Bachelor of Bio-Resource Management degree (B.BRM). This degree was designed for students who do not intend to pursue post-graduate studies and are strongly focused on securing employment that makes use of the knowledge acquired in their bachelor's degree.

This degree is a unique blend of applied and theoretical learning, with an emphasis on experiential learning opportunities. It is designed for those with a commitment to urban, regional, and/or rural stewardship and service of our living resources.

This degree program is not open until Fall 2006. At that time it is anticipated that two majors, Horticulture Management and Environmental Management (pending), will be available.

Program Information

Students are required to follow the Schedule of Studies for the major in Horticulture Management. A solid grounding in applied aspects of science, technology and business provides graduates with sufficient breadth or expertise to become knowledgeable managers in all aspects of the horticultural business. The first 10.00 credits are available through the Ridgetown campus, and the additional 10.00 credits are available through the Guelph campus.

Academic Advising and Counselling

Program Counselling

Program Counsellors are available at both the Ridgetown and Guelph campuses to assist students with course selection and other questions pertaining to the degree program. For information about how to contact a program counsellor, and for more information about academic advising and program counselling, see Section VII -- Academic Counselling of the current Undergraduate Calendar

Academic Advising

On entering the program all students are assigned to a faculty advisor who will mentor them throughout their first two years. The faculty advisor is familiar with the academic requirements of the program and is aware of career opportunities. Students are strongly encouraged to attend all meetings called by their advisor, and to set up individual meetings with him/her when they have questions or concerns about their performance or progress in the program.

Continuation of Study

Students are advised to consult the regulations for Continuation of Study which are outlined in detail in Section VIII -- Undergraduate Degree Regulations & Procedures in the current calendar. Students in the B.BRM program may repeat any failed course only once. Failure to successfully complete a required (core) credit on the second attempt results in the student not being permitted to continue in his/her major and/or degree program.

Conditions for Graduation

To qualify for the degree Bachelor of Bio-Resource Management, the student must satisfy the following conditions:

• the student must have successfully completed the Schedule of Studies requirements for the specified major

• the student must have a cumulative average of 60% or higher.

Schedule of Studies

Courses specified in the Schedule of Studies are required courses and must be successfully completed. A full time course load normally includes 2.50 credits (normally 5 courses). Students must successfully complete a minimum of 4.00 university credits and/or course equivalents at the 3000 level or higher, of which at least 1.00 credit must be at the 4000 level. In addition to core requirements, students must successfully complete at least 4.00 credits from the list of Restricted Electives.

B.BRM Program Regulations

Entry Credits

Students entering the degree program who are deficient in U level Biology, Mathematics, or Chemistry should consult with the program counsellor. Information about Summer semester courses will be available through Ridgetown College.

It is recommended that prior to enrolment in the degree program, students lacking U level Biology, Mathematics, or Chemistry should consult with the program counsellor. Information about Summer semester courses will be available through Ridgetown College.

In general, the 4U or OAC credit or its equivalent is required in a subject area to allow entrance to the initial university course. Students who lack this requirement can remedy the deficiency by successful completion of BIOL*1020 for students lacking biology, CHEM*1060 for students lacking chemistry, and MATH*1000 for students lacking "advanced functions and introductory calculus". Not more than one of the above courses will be allowed for credit towards the B.BRM degree.

Special Expenses

Expenses for field trips can range from $20 to $50 per semester in the first 4 semesters and from $25 to $50 in each of the last 4 semesters. In certain courses modest expenses will be incurred for supplies.

Provisional Schedule of Studies

Horticulture Management Major

This major will require the completion of 20.00 credits.

Semesters 1 to 4 offered at the Ridgetown campus

Semester 1- Fall

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>AGEC*1100</td>
<td>0.50</td>
<td>Introduction to Business</td>
</tr>
<tr>
<td>CIS*1000</td>
<td>0.50</td>
<td>Introduction to Computer Applications</td>
</tr>
<tr>
<td>HORT*1050</td>
<td>0.50</td>
<td>Introduction to Horticultural Management</td>
</tr>
<tr>
<td>SOIL*2010</td>
<td>0.50</td>
<td>Soil Science *</td>
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<tr>
<td>HORT*1060</td>
<td>0.50</td>
<td>Plant Identification I. Woody Landscape Plants</td>
</tr>
<tr>
<td>HORT*1080</td>
<td>0.50</td>
<td>Fruit and Vegetable Production</td>
</tr>
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*(Note: Students deficient in U level Biology must register in BIOL*1020 in place of this course).

Semester 2 - Winter

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Title</th>
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<tr>
<td>BIOL*1030</td>
<td>0.50</td>
<td>Biology I</td>
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<td>AGR*1050</td>
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<td>Communication Skills</td>
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<td>0.50 restricted electives</td>
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<td>One of:</td>
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<tr>
<td>HORT*1100</td>
<td>0.50</td>
<td>Plant Propagation Techniques</td>
</tr>
<tr>
<td>ENVB*1010</td>
<td>0.50</td>
<td>Food Crop Pest Management**</td>
</tr>
<tr>
<td>SOIL*2010</td>
<td>0.50</td>
<td>Soil Science</td>
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<tr>
<td>(if BIOL*1020 was selected in Semester 1)</td>
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<tr>
<td>HORT*1200</td>
<td>0.50</td>
<td>Advanced Vegetable Production</td>
</tr>
<tr>
<td>EDRD*1150</td>
<td>0.50</td>
<td>Landscape Design I</td>
</tr>
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</table>

*(Note: Students deficient in either U level Mathematics or Chemistry must register for either MATH*1000 or CHEM*1060 in place of these courses).

Semester 3- Fall

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<tbody>
<tr>
<td>CHEM*1300</td>
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<td>Introductory Environmental Chemistry</td>
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<td>AGEC*2220</td>
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<td>Financial Accounting</td>
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<td>AGR*2100</td>
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<td>BIOL*1040</td>
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<td>Biology II</td>
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<td>HORT*2060</td>
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<td>Plant Identification II</td>
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<td>HORT*2010</td>
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<td>Greenhouse Management</td>
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Semester 4- Winter

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<tbody>
<tr>
<td>AGEC*2230</td>
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<td>Management Accounting</td>
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<td>HORT*2200</td>
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<td>AGR*2110</td>
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<td>Sales and Sales Management</td>
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<tr>
<td>COST*1000</td>
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<td>Introduction to Marketing Management</td>
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Semesters 5 to 8 offered on Guelph campus

Semester 5- Fall

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<tr>
<td>AGR*3500</td>
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<td>Experiential Education</td>
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<tr>
<td>AGEC*3100</td>
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<td>Applied Project and Production Management</td>
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<tr>
<td>1.00 restricted electives</td>
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<td></td>
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<td>One of:</td>
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<tr>
<td>ENVB*2040</td>
<td>0.50</td>
<td>Biology of Plant Pests</td>
</tr>
<tr>
<td>BOT*3410</td>
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<td>Plant Anatomy</td>
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Semester 6 - Winter

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<td>STAT*2060</td>
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<td>Statistics for Business Decisions</td>
</tr>
<tr>
<td>HORT*3150</td>
<td>0.50</td>
<td>Environmental Issues in Horticulture</td>
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<tr>
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<tr>
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<tr>
<td>BOT*3310</td>
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<td>Plant Physiology</td>
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<tr>
<td>PBIO*3110</td>
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<td>Crop Physiology</td>
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Semester 7 - Fall

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<th>Course</th>
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<th>Title</th>
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</thead>
<tbody>
<tr>
<td>AGR*4150</td>
<td>0.50</td>
<td>Experiential Education II</td>
</tr>
<tr>
<td>0.50 restricted electives</td>
<td></td>
<td></td>
</tr>
<tr>
<td>One of:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MET*2020</td>
<td>0.50</td>
<td>Agrometeorology</td>
</tr>
<tr>
<td>SOIL*3080</td>
<td>0.50</td>
<td>Soil and Water Conservation</td>
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Semester 8 - Winter

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>AGEC*4100</td>
<td>0.50</td>
<td>Strategic Business Project</td>
</tr>
<tr>
<td>AGR*4050</td>
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<td>Professionalism and Agrology</td>
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<tr>
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<tr>
<td>1.00 electives</td>
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</tbody>
</table>
Horticulture Management Major Restricted Electives

In addition to the 13.50 required credits listed above, students must take a minimum of 4.00 restricted electives throughout the program. Students must select at least 2.50 credits from List A (Science and Discipline) and at least 1.50 credits from List B (Business).

**List A: Science and Discipline**

### Available at Regional Campus

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>CROP*2150</td>
<td>0.50</td>
<td>Organic Crop Production</td>
</tr>
<tr>
<td>EDRD*1150</td>
<td>0.50</td>
<td>Landscape Design I</td>
</tr>
<tr>
<td>EDRD*2050</td>
<td>0.50</td>
<td>Landscape Construction and Planning</td>
</tr>
<tr>
<td>EDRD*2150</td>
<td>0.50</td>
<td>Graphic Communications and CAD</td>
</tr>
<tr>
<td>ENVB*2070</td>
<td>0.50</td>
<td>Tree Biology and Management</td>
</tr>
<tr>
<td>HORT*1200</td>
<td>0.50</td>
<td>Advanced Vegetable Production</td>
</tr>
<tr>
<td>HORT*2010</td>
<td>0.50</td>
<td>Greenhouse Management</td>
</tr>
<tr>
<td>HORT*2050</td>
<td>0.50</td>
<td>Greenhouse Crop Production</td>
</tr>
<tr>
<td>HORT*2080</td>
<td>0.50</td>
<td>Horticulture Weed Science</td>
</tr>
<tr>
<td>HORT*2100</td>
<td>0.50</td>
<td>Nursery Management</td>
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### Available by Distance Education

<table>
<thead>
<tr>
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<th>Credits</th>
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</tr>
</thead>
<tbody>
<tr>
<td>LARC*1950</td>
<td>0.50</td>
<td>History of Cultural Form I</td>
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### Available at Guelph Campus

<table>
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<td>Life Strategies of Plants</td>
</tr>
<tr>
<td>ENVB*3030</td>
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<td>Pesticides and the Environment</td>
</tr>
<tr>
<td>ENVB*3040</td>
<td>0.50</td>
<td>Natural Chemicals in the Environment</td>
</tr>
<tr>
<td>ENVB*3110</td>
<td>0.50</td>
<td>Natural History of Insects</td>
</tr>
<tr>
<td>ENVB*3210</td>
<td>0.50</td>
<td>Plant Pathology</td>
</tr>
<tr>
<td>GEOG*3320</td>
<td>0.50</td>
<td>Agriculture and Society</td>
</tr>
<tr>
<td>HORT*3220</td>
<td>0.50</td>
<td>Turf Management</td>
</tr>
<tr>
<td>HORT*3340</td>
<td>0.50</td>
<td>Culture of Plants</td>
</tr>
<tr>
<td>HORT*4250</td>
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<td>Nursery Production</td>
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<tr>
<td>HORT*4300</td>
<td>0.50</td>
<td>Postharvest Physiology</td>
</tr>
<tr>
<td>LARC*2100</td>
<td>0.50</td>
<td>Landscape Analysis</td>
</tr>
<tr>
<td>LARC*2410</td>
<td>0.50</td>
<td>Site Engineering</td>
</tr>
<tr>
<td>LARC*2820</td>
<td>0.50</td>
<td>Urban and Regional Planning</td>
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<tr>
<td>LARC*3040</td>
<td>0.75</td>
<td>Site Planning and Design Studio</td>
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<td>LARC*4620</td>
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<td>Internship in Landscape Architecture</td>
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<td>Agrometeorology</td>
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<tr>
<td>REXT*2000</td>
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<td>Introduction to Rural Extension</td>
</tr>
<tr>
<td>REXT*3000</td>
<td>0.50</td>
<td>Program Development and Evaluation</td>
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<tr>
<td>REXT*3100</td>
<td>0.50</td>
<td>Teaching and Learning in Non-Formal Education</td>
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<tr>
<td>REXT*4100</td>
<td>0.50</td>
<td>Leadership Development in Rural Organization</td>
</tr>
<tr>
<td>SOIL*2120</td>
<td>0.50</td>
<td>Introduction to Environmental Stewardship</td>
</tr>
<tr>
<td>SOIL*3050</td>
<td>0.50</td>
<td>Land Utilization</td>
</tr>
<tr>
<td>SOIL*3200</td>
<td>0.50</td>
<td>Environmental Soil Biology</td>
</tr>
<tr>
<td>SOIL*4090</td>
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<td>Soil Management</td>
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**List B: Business**

### Available at Regional Campus

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### Available by Distance Education

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<tbody>
<tr>
<td>COST*1000</td>
<td>0.50</td>
<td>Introduction to Marketing Management</td>
</tr>
<tr>
<td>PSYC*1100</td>
<td>0.50</td>
<td>Principles of Behaviour</td>
</tr>
<tr>
<td>PSYC*1200</td>
<td>0.50</td>
<td>Dynamics of Behaviour</td>
</tr>
<tr>
<td>SOC*1100</td>
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<td>Sociology</td>
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### Available at Guelph Campus

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<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>AGEC*4210</td>
<td>0.50</td>
<td>World Agriculture and Economic Development</td>
</tr>
<tr>
<td>AGEC*4250</td>
<td>0.50</td>
<td>Business Policy</td>
</tr>
<tr>
<td>AGEC*4370</td>
<td>0.50</td>
<td>Marketing Management</td>
</tr>
<tr>
<td>COST*2600</td>
<td>0.50</td>
<td>Fundamentals of Consumer Behaviour</td>
</tr>
<tr>
<td>ECON*1100</td>
<td>0.50</td>
<td>Introductory Macroeconomics</td>
</tr>
<tr>
<td>ECON*2410</td>
<td>0.50</td>
<td>Intermediate Macroeconomics</td>
</tr>
<tr>
<td>ECON*2740</td>
<td>0.50</td>
<td>Economic Statistics</td>
</tr>
<tr>
<td>ECON*3560</td>
<td>0.50</td>
<td>Theory of Finance</td>
</tr>
<tr>
<td>MATH*1080</td>
<td>0.50</td>
<td>Elements of Calculus I</td>
</tr>
<tr>
<td>REXT*3080</td>
<td>0.50</td>
<td>Technology in Extension</td>
</tr>
</tbody>
</table>
## Bachelor of Commerce (B.Comm)

The University of Guelph offers an 8 semester honours program leading to a Bachelor of Commerce degree. Students must select one of the following 8 major areas of study:

- Agricultural Business
- Hotel and Food Administration
- Housing and Real Estate Management
- Human Resources Management
- Management Economics in Industry and Finance
- Marketing Management
- Public Management
- Tourism Management

### Program Information

#### Academic Counselling

The B.Com. program counsellor is available to assist prospective students in the selection of their major and initial courses, and to respond to questions regarding any other aspects of the program. The program counsellor will also assist in-course students who need information or advice about their program or other academic regulations, who seek information on services and resources available to students or who are contemplating transfer into or out of their current major or degree program.

#### Departmental Advising

On entering the program, all students are assigned a departmental advisor to whom they may turn for consultation in scheduling of courses and selection of electives, academic requirements of the program, and information concerning career opportunities. The required course selections and where required, restricted electives are presented in the following pages.

#### Special Expenses

Expenses may include cost of field trips and supplies and, for some majors, laboratory coats and other protective clothing.

#### Study Abroad

Global understanding and perspectives are regarded as being of central importance among the university's learning objectives, as they are, also, in understanding the international business environment. On both of these accounts, students enrolled in the B.Com. program are urged to participate in one of the several exchange and study abroad programs specifically designed for the Commerce program. Planning for such participation is best undertaken quite early in the course of studies. For more specific information on the opportunities provided for a semester in France and other locations refer to Section V--International Study or contact the B.Com. program counsellor.

### Continuation of Studies

Students are advised to consult the regulations for Continuation of Study within the program which are outlined in detail in Section VIII--Undergraduate Degree Regulations and Procedures.

### Conditions of Graduation

To qualify for a Bachelor of Commerce degree for a specific major the student must successfully complete a minimum of 20.00 approved credits. The requirements for each major are set out in the schedule of studies.

### Schedule of Studies

Courses specified in the schedule of studies are required courses and must be completed successfully. A full course load normally involves 2.50 credits. The requirements for each major are set out below.

#### Agricultural Business (AGBU)

**Department of Agricultural Economics and Business, Ontario Agricultural College.**

The Agricultural Business major is concerned with the management problems of business firms and prepares students for a range of management careers in agribusiness. Graduates of the Agricultural Business program meet the educational requirements for membership in the Ontario Institute of Agrologists. The Ontario Institute of Agrologists is the professional organization in agriculture in the Province of Ontario. Professional institutes in the various provinces in Canada and the scientific societies in agriculture collectively comprise the Agricultural Institute of Canada. The program has been fully accredited by the Agricultural Institute of Canada.

Included in the core requirements, the Agricultural Business program provides students with the option of selecting from the Restricted Electives list courses that will complement their studies. The first option (List A) is designed for students more interested in the business relationships of farming and involves marketing and advanced farm management. The second option (List B) emphasizes the production aspects of farming and involves biology and either animal or plant systems.

The major is administered by the Department of Agricultural Economics and Business in the Ontario Agricultural College and students are urged to consult the departmental advisor. For this major, 15.00 of the 20.00 credits (including 1.50 credits from List A or List B) are specified as core requirements and the remaining 5.00 credits are specified as electives.

### Major

#### Semester 1

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
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<tr>
<td>AGR*1100</td>
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<tr>
<td>ECON*1050</td>
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<tr>
<td>MATH*1000</td>
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Note: Students who are exceptionally strong in mathematics may substitute either MATH*1080 or MATH*1200 for MATH*1000.

#### Semester 2

<table>
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<tr>
<th>Course Code</th>
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<td>AGR*1250</td>
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<tr>
<td>CIS*1200</td>
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</tr>
<tr>
<td>ECON*1100</td>
<td>0.50 Introductory Microeconomics</td>
</tr>
<tr>
<td>PSYC*1200</td>
<td>0.50 Dynamics of Behaviour</td>
</tr>
<tr>
<td>0.50 elective</td>
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#### Semester 3

<table>
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<tr>
<th>Course Code</th>
<th>Credits</th>
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<tr>
<td>AGEC*2220</td>
<td>0.50 Financial Accounting</td>
</tr>
<tr>
<td>AGEC*2400</td>
<td>0.50 Economics of the Canadian Food System</td>
</tr>
<tr>
<td>ECON*2310</td>
<td>0.50 Intermediate Microeconomics</td>
</tr>
<tr>
<td>ECON*2740</td>
<td>0.50 Economic Statistics</td>
</tr>
<tr>
<td>0.50 from List A or List B</td>
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#### Semester 4

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</thead>
<tbody>
<tr>
<td>AGEC*2230</td>
<td>0.50 Management Accounting</td>
</tr>
<tr>
<td>AGEC*2410</td>
<td>0.50 Agrifood Markets and Policy</td>
</tr>
<tr>
<td>ECON*2410</td>
<td>0.50 Intermediate Microeconomics</td>
</tr>
<tr>
<td>ECON*2770</td>
<td>0.50 Introductory Mathematical Economics</td>
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<tr>
<td>1 of: 0.50 from List A and 0.50 elective for students selecting List A 1.00 elective for students selecting List B</td>
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#### Semester 5

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<tr>
<td>AGEC*3320</td>
<td>0.50 Financial Management</td>
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<tr>
<td>COST*3040</td>
<td>0.50 Business and Consumer Law</td>
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<tr>
<td>ECON*3740</td>
<td>0.50 Introduction to Econometrics</td>
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<tr>
<td>0.50 from List A or List B 0.50 elective</td>
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#### Semester 6

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<tr>
<td>AGEC*3310</td>
<td>0.50 Operations Management</td>
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<tr>
<td>ECON*3560</td>
<td>0.50 Theory of Finance</td>
</tr>
<tr>
<td>HTM*4390</td>
<td>0.50 Individuals and Groups in Organizations</td>
</tr>
<tr>
<td>Students choosing List A take 1.00 elective</td>
<td></td>
</tr>
<tr>
<td>Students choosing List B take 0.50 from List B and 0.50 elective</td>
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#### Semester 7

<table>
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<th>Course Code</th>
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<td>0.50 The Firm and Markets</td>
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<tr>
<td>AGEC*4250</td>
<td>0.50 Business Policy</td>
</tr>
<tr>
<td>AGEC*4370</td>
<td>0.50 Marketing Management</td>
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<tr>
<td>1.00 elective</td>
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#### Semester 8

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<td>0.50 Agricultural and Food Policy</td>
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<tr>
<td>AGEC*4240</td>
<td>0.50 Futures and Options Markets</td>
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<tr>
<td>AGR*4500</td>
<td>0.50 Agrifood Industry Problem-Solving</td>
</tr>
<tr>
<td>1 of: 0.50 from List A and 0.50 elective for students selecting List A 1.00 elective for students selecting List B</td>
<td></td>
</tr>
</tbody>
</table>

### Restricted Electives

After completion of the first year of the Agricultural Business program, students have the option of selecting three courses from List A or three courses from List B. In order to satisfy the core requirements, students must complete three courses from one of the lists. Students are encouraged to take these courses in the semester indicated in the schedule of studies.

#### List A

<table>
<thead>
<tr>
<th>Semester 3</th>
<th>Course Code</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>COST*1000</td>
<td>0.50 Introduction to Marketing Management</td>
</tr>
</tbody>
</table>
Semester 4
- COST*2600 [0.50] Fundamentals of Consumer Behaviour
- AGEC*4220 [0.50] Advanced Farm Management

**List B**
- BIOL*1020 in Semester 3
  (2 of ANSC*2340, ANSC*2350, ANSC*2360, ANSC*3150, AGR*2470, and CROP*2110)
  * students with OAC Biology may elect to take BIOL*1030 in Semester 3

**Department of Agricultural Economics and Business, Ontario Agricultural College.**

**Major**

**Semester 1 - Fall**
- AGR*1100 [0.50] Introduction to the Agrifood System
- ECON*1050 [0.50] Introductory Microeconomics
- MATH*1000 [0.50] Introductory Calculus

1.00 elective

Note: Students who are exceptionally strong in mathematics may substitute either MATH*1080 or MATH*1200 for MATH*1000.

**Semester 2 - Winter**
- AGR*1250 [0.50] Agrifood System Trends and Issues
- CIS*1200 [0.50] Introduction to Computing
- ECON*1100 [0.50] Introductory Microeconomics
- PSYC*1200 [0.50] Dynamics of Behaviour

0.50 elective

**Semester 3 - Fall**
- AGEC*2220 [0.50] Financial Accounting
- AGR*2400 [0.50] Economics of the Canadian Food System
- COOP*1100 [0.00] Introduction to Co-operative Education
- ECON*2310 [0.50] Intermediate Microeconomics
- ECON*2740 [0.50] Economic Statistics

0.50 elective from List A or List B

**Semester 4 - Winter**
- AGEC*2230 [0.50] Management Accounting
- AGR*2410 [0.50] Agrifood Markets and Policy
- ECON*2410 [0.50] Intermediate Macroeconomics
- ECON*2770 [0.50] Introductory Mathematical Economics

0.50 from List A or List B

**Summer Semester**
- COOP*1000 [0.00] Co-op Work Term I

**Fall Semester**
- COOP*2000 [0.00] Co-op Work Term II

**Semester 5 - Winter**
- AGEC*3310 [0.50] Operations Management
- COST*3040 [0.50] Business and Consumer Law
- ECON*3740 [0.50] Introduction to Econometrics

1.00 electives

**Summer Semester**

Optional academic term.

**Semester 6 - Fall**
- AGEC*3320 [0.50] Financial Management
- ECON*3560 [0.50] Theory of Finance
- HTM*4390 [0.50] Individuals and Groups in Organizations

1.00 elective

**Winter Semester**
- COOP*3000 [0.00] Co-op Work Term III

**Summer Semester**
- COOP*4000 [0.00] Co-op Work Term IV

**Semester 7 - Fall**
- AGEC*3030 [0.50] The Firm and Markets
- AGEC*4250 [0.50] Business Policy
- AGEC*4370 [0.50] Marketing Management

Students choosing List A take 1.00 elective
Students choosing List B take 0.50 from List A and 0.50 elective

**Semester 8 - Winter**
- AGEC*4000 [0.50] Agricultural and Food Policy
- AGEC*4240 [0.50] Futures and Options Markets
- AGR*4500 [0.50] Agrifood Industry Problem-Solving

Students choosing List A take 0.50 from List A and 0.50 elective
Students choosing List B take 1.00 elective

**Restricted Electives**

As for the regular program.

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**Hotel and Food Administration (HAFA)**

**School of Hospitality and Tourism Management, College of Social and Applied Human Sciences.**

The Hotel and Food Administration major prepares graduates to assume positions of responsibility in any aspect of the hospitality field. It includes principles of administration, theories of interpersonal relations, human resources management, and communications. Distinctive courses include Hospitality Facilities Management and Design and Lodging Management. The courses in this program relate to the management of both the accommodation and food service facilities used by the public and private sector. The major is administered by the School of Hospitality and Tourism Management and students are urged to consult the departmental advisor.

For this major, 14.50 of the 20.00 credits are specified as core requirements, 3.00 as restricted electives, and 2.50 as electives. Verified work experience in the hospitality industry is required for students to be eligible for graduation.

Group work is a significant part of core credit work.

**Major**

**Semester 1**
- ECON*1050 [0.50] Introductory Microeconomics
- HTM*1000 [0.50] Introduction to Hospitality and Tourism Management
- POLS*1400 [0.50] Public Management and Administration
- PSYC*1200 [0.50] Dynamics of Behaviour

One of:
- CHEM*1100 [0.50] Chemistry Today
- HTM*2700 [0.50] Introductory Foods

*CHEM*1100 must be taken by students without Grade 12U or OAC Chemistry. If CHEM*1100 is not required, then a total of 3.50 restricted electives are required.

**Semester 2**
- ECON*1100 [0.50] Introductory Macroeconomics
- HTM*2000 [0.50] Hospitality and Tourism Purchasing Management
- HTM*2100 [0.50] Lodging Operations
- HTM*2120 [0.50] Hospitality and Tourism Marketing I

0.50 from List A or List B or electives

**Semester 3**
- 2.50 from List A or List B or electives

**Semester 4**
- STAT*2060 [0.50] Statistics for Business Decisions

2.00 from List A or List B or electives

**Semester 5**
- HTM*3030 [0.50] Beverage Management

2.00 from List A or List B or electives

**Semester 6**
- HTM*3120 [0.50] Operations Analysis in the Hospitality and Tourism Industry

2.00 from List A or List B or electives

**Semester 7**
- 2.50 from List A or List B or electives

**Semester 8**
- 2.50 from List A or List B or electives

**List A - Further Required Courses**

The following 8.50 credits are also required. Further details on the scheduling of courses will be provided in writing prior to each course selection period by the School’s faculty advisor.

**Semester 1 or 2**
- HTM*2700 [0.50] Introductory Foods

**Semester 2 or 3**
- HTM*2010 [0.50] Hospitality and Tourism Business Communications

**Semester 3 or 4**
- AGEC*2220 [0.50] Financial Accounting
- COST*2020 [0.50] Information Management
- COST*3040 [0.50] Business and Consumer Law
- HTM*2030 [0.50] Control Systems in the Hospitality and Tourism Industry
- HTM*2200 [0.50] Organizational Behaviour I

**Semester 4 or 5**
- HTM*3070 [0.50] Hospitality and Tourism Management Accounting

**Semester 5 or 6**
- AGEC*3320 [0.50] Financial Management
- HTM*3000 [0.50] Human Resources Management
- HTM*3080 [0.50] Hospitality and Tourism Marketing II
- HTM*3090 [1.00] Foodservice Operations Management

**Semester 7 or 8**
- HTM*4090 [0.50] Hospitality and Tourism Facilities Management and Design
List B - Restricted Electives

In addition to the 14.50 required credits listed above, students must take a minimum of 3.00 restricted electives throughout the program. Students may choose to explore a variety of subjects or may choose to study an area allied to their major in some depth. Restricted electives are listed below and have been grouped in major topical areas which are related to, or are an extension of, the professional interests of the major. Students may, however, choose restricted electives from any of those listed without regard to the categories, which are intended to be suggestive.

Courses dealing with the social and economic environment of business firms and other administrative entities in the hospitality industry:

- ECON*2130 [0.50] Intermediate Microeconomics
- ECON*2410 [0.50] Intermediate Macroeconomics
- ECON*3510 [0.50] Money, Credit and the Financial System
- ECON*3520 [0.50] Labour Economics
- ECON*3560 [0.50] Theory of Finance
- PHIL*1010 [0.50] Introductory Philosophy: Social and Political Issues
- PHIL*2600 [0.50] Business and Professional Ethics
- SOC*2190 [0.50] Technology and Society

Courses dealing with human behaviour particularly as related to work and work groups:

- ANTH*1150 [0.50] Anthropology
- ECON*2200 [0.50] Industrial Relations
- PSYC*2310 [0.50] Introduction to Social Psychology
- SOAN*2040 [0.50] Globalization of Work and Organizations
- SOC*1100 [0.50] Sociology

Courses dealing with market forces and consumer behaviour:

- AGEC*4360 [0.50] Marketing Research
- COST*1000 [0.50] Introduction to Marketing Management
- COST*2600 [0.50] Fundamentals of Consumer Behaviour
- COST*3600 [0.50] Consumer Information Processes
- COST*3620 [0.50] Advertising Management

Courses related to the study of tourism:

- ECON*3560 [0.50] Theory of Finance
- HTM*2700 [0.50] Introductory Foods
- HTM*4190 [0.50] Hospitality and Tourism Operations Planning
- HTM*4200 [0.50] Tourism in Canada
- HTM*4210 [0.50] Hospitality and Tourism Purchasing Management
- HTM*4300 [0.50] Co-operative Education Seminar

Courses related to institutional foodservice management:

- AGR*1250 [0.50] Agrifood System Trends and Issues
- CHEM*1040 [0.50] General Chemistry I
- CHEM*1050 [0.50] General Chemistry II
- FOOD*2150 [0.50] Introduction to Nutritional and Food Science
- FOOD*3700 [0.50] Sensory Evaluation of Foods
- HTM*2740 [0.50] Cultural Aspects of Food
- NUTR*1010 [0.50] Nutrition and Society
- NUTR*2050 [0.50] Family and Community Nutrition

Specialized courses in Hospitality and Tourism Management:

- HTM*2000 [0.50] Hospitality and Tourism Purchasing Management
- HTM*2120 [0.50] Hospitality and Tourism Purchasing Management

Other subjects related to the study of administration:

- AGEC*2230 [0.50] Management Accounting
- AGEC*3310 [0.50] Operations Management
- AGEC*3330 [0.50] Intermediate Accounting
- AGEC*4250 [0.50] Business Policy
- AGEC*4370 [0.50] Marketing Management
- AGEC*4410 [0.50] Sales and Sales Management
- COST*2100 [0.50] Personal Financial Management

Other restricted electives:

- CI*1000 [0.50] Introduction to Computer Applications
- COST*2820 [0.50] Housing Finance
- COST*3010 [0.50] Quality Management
- ECON*3520 [0.50] Labour Economics
- ENGL*1410 [0.50] Major English Writers
- PHIL*2100 [0.50] Critical Thinking
- REXT*3040 [0.50] Communication Process
- REXT*3060 [0.50] International Communication

Students may select up to 2.00 credits in any foreign language as restricted electives.

Electives

In addition to the 14.50 required credits and the 3.00 restricted electives, the student has 2.50 electives throughout the program which may be fulfilled by selecting courses in any subject provided that the student is qualified to take the course and can schedule it.

Hotel and Food Administration (Co-op) (HAFA:C)

School of Hospitality and Tourism Management, College of Social and Applied Human Sciences.

The principal aim of the Hotel and Food Administration Co-op program is to facilitate the transition of students from academic studies to a professional work life by enhancing the integration of theory and practice. The major is administered by the School of Hospitality and Tourism Management and students are urged to consult the departmental co-op faculty advisor. The co-op work program consists of one twelve-month period. The work semester begins at the end of the second year and extends from May to April. The co-op program is completed over a 5 year period. The academic program consists of 20.00 credits, 15.00 of which are specified as core requirements, 2.50 as restricted electives, and 2.50 as electives.

Major

Semester 1 - Fall
- ECON*1050 [0.50] Introductory Microeconomics
- HTM*1000 [0.50] Introduction to Hospitality and Tourism Management
- POLS*1400 [0.50] Public Management and Administration
- PSYC*1200 [0.50] Dynamics of Behaviour

One of:
- CHEM*1100 [0.50] Chemistry Today
- HTM*2700 [0.50] Introductory Foods

*CHEM*1100 must be taken by students without Grade 12U or OAC Chemistry. If CHEM*1100 is not required, then a total of 3.00 restricted electives are required.

Semester 2 - Winter
- ECON*1100 [0.50] Introductory Macroeconomics
- HTM*2000 [0.50] Hospitality and Tourism Purchasing Management
- HTM*2100 [0.50] Lodging Operations
- HTM*2120 [0.50] Hospitality and Tourism Marketing I

0.50 from List A or List B or electives

Semester 3 - Fall
- COOP*1100 [0.00] Introduction to Co-operative Education

2.50 from List A or List B or electives

Semester 4 - Winter
- STAT*2060 [0.50] Statistics for Business Decisions

2.00 from List A or List B or electives

Summer Semester
- COOP*1000 [0.00] Co-op Work Term I

Fall Semester
- COOP*2000 [0.00] Co-op Work Term II

Winter Semester
- COOP*3000 [0.00] Co-op Work Term III

Semester 5 - Fall
- HTM*3030 [0.50] Operations Analysis in the Hospitality and Tourism Industry

2.00 from List A or List B or electives

Semester 6 - Winter
- HTM*3120 [0.50] Operations Analysis in the Hospitality and Tourism Industry

2.00 from List A or List B or electives

Semester 7 - Fall
- HTM*3200 [0.50] Hospitality and Tourism Purchasing Management

2.50 from List A or List B or electives

Semester 8 - Winter
- HTM*4300 [0.50] Co-operative Education Seminar

2.00 from List A or List B or electives

Note: For courses included in List A or List B refer to the regular major.

Housing and Real Estate Management (HREM)

Department of Marketing and Consumer Studies, College of Social and Applied Human Sciences.

The Housing and Real Estate Management major in the B.Comm program offers a multi-disciplinary approach to the study of housing, focusing on the delivery of housing services, the management of housing and real estate and on the economic and social policy context.
The major shares a common core with other majors in the B.Comm. program. The focus of the major is on the development of conceptual, analytical and management skills required for professional careers in the field of housing and real estate management.

Students in the major study housing and real estate in the context of an assemblage of physical, financial, legal, political and social elements, making linkages between and among elements and then use this knowledge to apply to the management and analysis of housing services systems, and the appraisal of housing policy.

Students graduate with a degree leading to a variety of professional positions in the public and private sectors or continue on to graduate work in business, planning or the social sciences.

Students in the Housing and Real Estate Management major are required to take the courses listed below. In addition, some may wish to make use of groupings of elective courses in order to pursue individual interests or develop additional focus.

### Major

#### Semester 1
- **COOP***1000 [0.50] Introduction to Marketing Management
- **COOP***1800 [0.50] Housing and Community Planning
- **ECON***1050 [0.50] Introductory Microeconomics
- **PSYC***1200 [0.50] Dynamics of Behaviour
  
  **0.50 elective**

#### Semester 2
- **COOP***1400 [0.50] Introduction to Design
- **ECON***1100 [0.50] Introductory Macroeconomics
- **ISS***2500 [0.50] Management in Organizations
- **MATH***1000 [0.50] Introductory Calculus
  
  **0.50 elective**

Note: Students who are exceptionally strong in mathematics may substitute either MATH*1080 or MATH*1200 for MATH*1000.

#### Semester 3
- **AGEC***2220 [0.50] Financial Accounting
- **ECON***2810 [0.50] Social Aspects of Housing
- **COST***2310 [0.50] Intermediate Microeconomics
- **STAT***2080 [0.50] Introductory Applied Statistics I
  
  **0.50 elective**

#### Semester 4
- **AGEC***2230 [0.50] Management Accounting
- **COST***2020 [0.50] Information Management
- **COST***2820 [0.50] Housing Finance
- **STAT***2090 [0.50] Introductory Applied Statistics II
  
  **0.50 elective**

#### Semester 5
- **COST***4840 [0.50] Housing and Real Estate Law
- **COST***4850 [0.50] Housing Policies
- **ECON***2410 [0.50] Intermediate Macroeconomics
- **POLS***2300 [0.50] Canadian Government
  
  **0.50 elective**

#### Semester 6
- **COST***3030 [0.50] Research Methods
- **COST***4860 [0.50] Housing Industry Structure and Process
- **POLS***2250 [0.50] Public Administration
  
  **0.50 elective**

#### Semester 7
- **COST***4820 [0.50] Real Estate Appraisal
- **ECON***3500 [0.50] Urban Economics
- **ECON***3510 [0.50] Money, Credit and the Financial System
- **ECON***3560 [0.50] Theory of Finance
  
  **0.50 elective**

#### Semester 8
- **COST***3890 [0.50] Property Management
- **COST***4810 [0.50] Housing Services Systems
- **POLS***3270 [0.50] Local Government in Ontario
  
  **1.00 elective**

#### Housing and Real Estate Management (Co-op) (HREM:C)

**Department of Marketing and Consumer Studies, College of Social and Applied Human Sciences.**

A principal aim of the Co-op program is to facilitate the transition of students from academic studies to a professional career in housing and real estate management by enhancing the integration of theory and practice.

The Co-op program consists of two eight month work terms. The Co-op program is normally completed over a 5 year period.

To be eligible to continue in the Co-op Major students must maintain a satisfactory average, must complete all course requirements as scheduled and must obtain a minimum evaluation of "satisfactory" on all required work term reports. Consult the Co-op advisor or Department for additional information.

### Major

#### Semester 1 - Fall
- **COST***1000 [0.50] Introduction to Marketing Management
- **COST***1800 [0.50] Housing and Community Planning
- **ECON***1050 [0.50] Introductory Microeconomics
- **PSYC***1200 [0.50] Dynamics of Behaviour
  
  **0.50 elective**

#### Semester 2 - Winter
- **COST***1400 [0.50] Introduction to Design
- **ECON***1100 [0.50] Introductory Macroeconomics
- **ISS***2500 [0.50] Management in Organizations
- **MATH***1000 [0.50] Introductory Calculus
  
  **0.50 elective**

Note: Students who are exceptionally strong in mathematics may substitute either MATH*1080 or MATH*1200 for MATH*1000.

#### Semester 3 - Fall
- **AGEC***2220 [0.50] Financial Accounting
- **COOP***1100 [0.50] Introduction to Co-operative Education
- **COST***2810 [0.50] Social Aspects of Housing
- **ECON***2310 [0.50] Intermediate Microeconomics
- **STAT***2080 [0.50] Introductory Applied Statistics I
  
  **0.50 elective**

#### Semester 4 - Winter
- **AGEC***2230 [0.50] Management Accounting
- **COST***2820 [0.50] Housing Finance
- **ECON***2410 [0.50] Intermediate Macroeconomics
- **STAT***2090 [0.50] Introductory Applied Statistics II
  
  **0.50 elective**

#### Summer Semester
- **COOP***1000 [0.00] Co-op Work Term I

#### Fall Semester
- **COOP***2000 [0.00] Co-op Work Term II

#### Semester 5 - Winter
- **COST***2020 [0.50] Information Management
- **COST***3890 [0.50] Property Management
- **COST***4860 [0.50] Housing Industry Structure and Process
- **POLS***2250 [0.50] Public Administration
  
  **0.50 elective**

#### Semester 6 - Fall
- **COST***3030 [0.50] Research Methods
- **COST***4840 [0.50] Housing and Real Estate Law
- **COST***4850 [0.50] Housing Policies
- **POLS***2300 [0.50] Canadian Government
  
  **0.50 elective**

#### Winter Semester
- **COOP***3000 [0.00] Co-op Work Term III

#### Summer Semester
- **COOP***4000 [0.00] Co-op Work Term IV

#### Semester 7 - Fall
- **COST***4820 [0.50] Real Estate Appraisal
- **ECON***3500 [0.50] Urban Economics
- **ECON***3510 [0.50] Money, Credit and the Financial System
- **ECON***3560 [0.50] Theory of Finance
  
  **0.50 elective**

#### Semester 8 - Winter
- **COST***4810 [0.50] Housing Services Systems
- **LARC***2820 [0.50] Urban and Regional Planning
- **POLS***3270 [0.50] Local Government in Ontario
  
  **1.00 elective**

### Human Resources Management (HRM)

**Department of Psychology, College of Social and Applied Human Sciences.**

The HRM program provides some basic preparation for students contemplating a career as a Human Resources practitioner, and for potential certification by the Human Resources Professionals Association of Ontario (HRPAO). It complements a traditional business core with an emphasis on issues relating to people and the workplace. The program combines conceptual and quantitative elements and promotes the integration of theory with practice. A feature of the program is a required applied research course, where
students conduct group projects in workplace settings under the direction of a faculty member. Presently the HRM program meets all four academic requirements of the Tier I Compulsory Subjects set out by the Human Resources Professionals Association of Ontario. Our objective is to meet 50% of the Tier II Specialized Subjects. For this major, 15.00 of the 20.00 credits are core requirements and the remaining 5.00 as electives. A list of suggested electives follows the description of required courses.

**Note:** Psychology Courses designated with (H) in Section XII--Course Descriptions are Honours level Psychology courses requiring for registration a cumulative average of at least 70% in all course attempts in Psychology or registration in the Human Resources Management major of the Bachelor of Commerce program.

### Major

<table>
<thead>
<tr>
<th>Semester 1</th>
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<tbody>
<tr>
<td>COST*1000</td>
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<tr>
<td>ECON*1050</td>
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<tr>
<td>POLS*1400</td>
<td>[0.50] Public Management and Administration</td>
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<td>PSYC*1200</td>
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<tr>
<td>ECON*1100</td>
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<td>PSYC*1100</td>
<td>[0.50] Principles of Behaviour</td>
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<td>PSYC*2010</td>
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<td>PSYC*2310</td>
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<td>AGEC*2220</td>
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<td>PSYC*2360</td>
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<td>COST*2020</td>
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<td>HTM*2200</td>
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<td>PHIL*2600</td>
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<td>COST*3040</td>
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<td>PSYC*3060</td>
<td>[0.50] Occupational Health Psychology</td>
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<td>PSYC*3090</td>
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<th>Semester 6</th>
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<td>ECON*3560</td>
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<td>HTM*3000</td>
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<td>PSYC*3010</td>
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<th>Semester 7</th>
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<tr>
<td>ECON*3520</td>
<td>[0.50] Labour Economics</td>
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<td>HTM*4100</td>
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<td>PSYC*4100</td>
<td>[0.50] Applied Research in Human Resources Management</td>
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<td>AGEC*4250</td>
<td>[0.50] Business Policy</td>
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<td>HTM*4160</td>
<td>[0.50] Human Resources Planning</td>
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<td>PSYC*4330</td>
<td>[0.50] Advanced Topics in I/O Psychology (H)</td>
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<tr>
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</table>

### Electives

The following is a list of courses which may be of interest to students selecting their electives.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
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<tbody>
<tr>
<td>AGEC*4370</td>
<td>Marketing Management</td>
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<tr>
<td>COST*2600</td>
<td>Fundamentals of Consumer Behaviour</td>
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<td>ECON*2410</td>
<td>Intermediate Macroeconomics</td>
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<td>ECON*2740</td>
<td>Economic Statistics</td>
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<td>ECON*4800</td>
<td>Theory of Strategic Management</td>
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<td>PSYC*2740</td>
<td>Personality</td>
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<td>PSYC*3250</td>
<td>Psychological Measurement</td>
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<td>SOAN*2040</td>
<td>Globalization of Work and Organizations</td>
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<tr>
<td>SOC*1100</td>
<td>Sociology</td>
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</tbody>
</table>

**Note:** 1.00 elective

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### Management Economics in Industry and Finance (MEIF)

**Department of Economics, College of Social and Applied Human Sciences.**

The Management Economics in Industry and Finance major is designed to offer students an appreciation of business problems in the areas of industrial organization and finance using the analytical orientation of the discipline of Economics and the tools of Business Management, Marketing and Accounting. This major combines the applied thrust of business courses with the analytical rigor of Economics.

The major provides a suitable education for a career in the business world or in the public service. It also constitutes a useful preparation for more advanced studies, including graduate studies in Economics, Business Administration, Law, and Public Policy. The major is administered by the Department of Economics and students are urged to consult the faculty advisor.

In addition to the Management Economics in Industry and Finance core, students will choose their restricted electives from the List of Restricted Electives. In selecting the restricted electives, students have a choice of either following a program of studies that covers a wide spectrum of topics in the areas of Industry and Finance or declaring an Area of Emphasis if they wish to pursue the study of Industry or Finance in more depth. Students that identify an Area of Emphasis will choose their restricted electives from the appropriate list of restricted electives below. Students wishing to have an Area of Emphasis are encouraged to declare their Area of Emphasis by Semester 4, in order to facilitate the availability of restricted electives. A planning guide is available in the department. Students are strongly advised to consult the faculty advisor in Economics to discuss the options available.

For this major, 9.50 credits are specified, 5.50 are restricted electives and 5.00 are free electives.

### Major

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<tr>
<th>Semester 1</th>
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<tbody>
<tr>
<td>ECON*1050</td>
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<tr>
<td>CIS*1200</td>
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<td>CIS*1500</td>
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<td>MATH*1000</td>
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<tr>
<td>AGEC*2220</td>
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<td>AGEC*2230</td>
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<td>[0.50] Business History</td>
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<th>Semester 4</th>
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<td>ECON*2410</td>
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<td>[0.50] Economic Statistics</td>
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<td>COST*3040</td>
<td>[0.50] Business and Consumer Law</td>
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<td>ECON*2770</td>
<td>[0.50] Introductory Mathematical Economics</td>
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**Note:** One of ECON*2770 and COST*3040 must be taken in Semester 3; the other must be taken in Semester 4.

<table>
<thead>
<tr>
<th>Semester 5</th>
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<tbody>
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<td>ECON*2750</td>
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<tr>
<td>1.00 elective</td>
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<table>
<thead>
<tr>
<th>Semester 6</th>
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<tbody>
<tr>
<td>ECON*3600</td>
<td>[0.50] Macroeconomics in an Open Economy</td>
</tr>
<tr>
<td>2.00 electives or restricted electives</td>
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</tbody>
</table>

**Note:** ECON*4710 and ECON*4810 are recommended for students wishing to pursue graduate studies.
Semester 7
HTM*4390 [0.50] Individuals and Groups in Organizations
2.00 electives or restricted electives

Semester 8
ECON*4800 [0.50] Theory of Strategic Management
2.00 electives or restricted electives

The restricted electives for the MEIF major are listed below. By choosing from this list, students will obtain a broad exposure to the areas of Finance and Industry. If, instead, students wish to obtain a greater degree of specialization in either the area of Finance or Industry, they may opt to diverge from the restricted electives given below and instead choose their restricted electives so as to satisfy the Finance Area of Emphasis Restricted Electives or the Industry Area of Emphasis Restricted Electives.

Restricted Electives
4.00 additional credits in economics, of which
• at most 0.50 credits can be at the 2000 level
• at least 0.50 credits must be at the 4000 level
• 1.50 credits are from the following:
  ECON*3510 [0.50] Money, Credit and the Financial System
  ECON*3520 [0.50] Labour Economics
  ECON*3530 [0.50] Industrial Organization
  ECON*3660 [0.50] Economics of Equity Markets
1.50 credits from the following:
AGEC*3310 [0.50] Operations Management
AGEC*3330 [0.50] Intermediate Accounting
AGEC*4240 [0.50] Futures and Options Markets
AGEC*4250 [0.50] Business Policy
AGEC*4360 [0.50] Marketing Research
AGEC*4370 [0.50] Marketing Management
AGEC*4410 [0.50] Sales and Sales Management

Finance Area of Emphasis Restricted Electives:
Students must take the following:
ECON*3510 [0.50] Money, Credit and the Financial System
ECON*3660 [0.50] Economics of Equity Markets
ECON*3710 [0.50] Advanced Microeconomics
ECON*3770 [0.50] Mathematical Economics and Game Theory
ECON*4560 [0.50] Advanced Topics in Finance
AGEC*4240 [0.50] Futures and Options Markets
2.00 additional credits in economics, of which
• 0.50 at most credits can be at the 2000 level
• at least 1.00 credits must be at the 4000 level
0.50 credits from the following:
AGEC*3310 [0.50] Operations Management
AGEC*3330 [0.50] Intermediate Accounting
AGEC*4250 [0.50] Business Policy
AGEC*4360 [0.50] Marketing Research
AGEC*4370 [0.50] Marketing Management
AGEC*4410 [0.50] Sales and Sales Management

Industry Area of Emphasis Restricted Electives:
Students must take the following:
AGEC*3310 [0.50] Operations Management
ECON*3530 [0.50] Industrial Organization
ECON*3710 [0.50] Advanced Microeconomics
ECON*3770 [0.50] Mathematical Economics and Game Theory
ECON*4780 [0.50] Theory of Strategic Management
One of:
ECON*3200 [0.50] Economics of Industrial Relations
ECON*3580 [0.50] Economics of Regulation
2.00 additional credits in Economics, of which
• at most 0.50 credits can be at the 2000 level
• at least 1.00 credits must be at the 4000 level
0.50 credits from the following:
AGEC*3330 [0.50] Intermediate Accounting
AGEC*4240 [0.50] Futures and Options Markets
AGEC*4250 [0.50] Business Policy
AGEC*4360 [0.50] Marketing Research
AGEC*4370 [0.50] Marketing Management
AGEC*4410 [0.50] Sales and Sales Management
Note: Only one of ECON*4900, ECON*4910 may count as one of the required minimum number of 4000 level economics credits in the B.Comm. program.

Management Economics in Industry and Finance (Co-op) (MEIF:C)
Department of Economics, College of Social and Applied Human Sciences.

A principal aim of the Co-op program in Management Economics in Industry and Finance is to facilitate the transition of students from academic studies to a professional career by enhancing the integration of theory and practice.

The Co-op program consists of two eight month work terms. The first work term begins after the second year and extends from January to August. The Co-op program is normally completed over a 5 year period.

To be eligible to continue in the Co-op major, students must maintain a satisfactory average, must complete all course requirements as scheduled and must obtain a minimum evaluation of “satisfactory” on all required work term reports. Consult the Co-op advisor or Department for additional program information.

Major

Semester 1
ECON*1050 [0.50] Introductory Microeconomics
One of:
CIS*1200 [0.50] Introduction to Computing
CIS*1500 [0.50] Introduction to Programming
One of:
MATH*1000 [0.50] Introductory Calculus
MATH*1080 [0.50] Elements of Calculus I
MATH*1200 [0.50] Calculus I
1.00 electives

Semester 2 - Winter
AGEC*2220 [0.50] Financial Accounting
COST*1000 [0.50] Introduction to Marketing Management
ECON*1100 [0.50] Introductory Macroeconomics
1.00 electives

Semester 3 - Fall
AGEC*2220 [0.50] Management Accounting
COOP*1100 [0.00] Introduction to Co-operative Education
ECON*2310 [0.50] Intermediate Microeconomics
ECON*2720 [0.50] Business History
ECON*2740 [0.50] Economic Statistics
0.50 elective

Summer Semester
COOP*1000 [0.00] Co-op Work Term I

Fall Semester
COOP*2000 [0.00] Co-op Work Term II

Semester 5 - Winter
ECON*3600 [0.50] Macroeconomics in an Open Economy
ECON*3740 [0.50] Introduction to Econometrics
1.50 electives or restricted electives

Semester 6 - Fall
AGEC*3320 [0.50] Financial Management
2.00 electives or restricted electives
Note: If in Finance or Industry take ECON*3710.
Note: ECON*4710 and ECON*4810 are recommended for students wishing to pursue graduate studies.

Winter Semester
COOP*3000 [0.00] Co-op Work Term III

Summer Semester
COOP*4000 [0.00] Co-op Work Term IV

Semester 7 - Fall
HTM*4390 [0.50] Individuals and Groups in Organizations
2.00 electives or restricted electives

Semester 8 - Winter
ECON*4800 [0.50] Theory of Strategic Management
2.00 electives or restricted electives

Restricted Electives
4.00 additional credits in economics, of which
• at most 0.50 credits can be at the 2000 level
• at least 0.50 credits must be at the 4000 level
• 1.50 credits are from the following:
  ECON*3510 [0.50] Money, Credit and the Financial System
  ECON*3520 [0.50] Labour Economics
  ECON*3530 [0.50] Industrial Organization
  ECON*3660 [0.50] Economics of Equity Markets
  MATH*1000 [0.50] Introductory Calculus
  MATH*1080 [0.50] Elements of Calculus I
  MATH*1200 [0.50] Calculus I
  ECON*3560 [0.50] Theory of Finance

Semester 1
ECON*1050 [0.50] Introductory Microeconomics
One of:
CIS*1200 [0.50] Introduction to Computing
CIS*1500 [0.50] Introduction to Programming
One of:
MATH*1000 [0.50] Introductory Calculus
MATH*1080 [0.50] Elements of Calculus I
MATH*1200 [0.50] Calculus I
1.00 electives

Semester 2 - Winter
AGEC*2220 [0.50] Financial Accounting
COST*1000 [0.50] Introduction to Marketing Management
ECON*1100 [0.50] Introductory Macroeconomics
1.00 electives

Semester 3 - Fall
AGEC*2220 [0.50] Management Accounting
COOP*1100 [0.00] Introduction to Co-operative Education
ECON*2310 [0.50] Intermediate Microeconomics
ECON*2720 [0.50] Business History
ECON*2740 [0.50] Economic Statistics
0.50 elective

Summer Semester
COOP*1000 [0.00] Co-op Work Term I

Fall Semester
COOP*2000 [0.00] Co-op Work Term II

Semester 5 - Winter
ECON*3600 [0.50] Macroeconomics in an Open Economy
ECON*3740 [0.50] Introduction to Econometrics
1.50 electives or restricted electives

Semester 6 - Fall
AGEC*3320 [0.50] Financial Management
2.00 electives or restricted electives
Note: If in Finance or Industry take ECON*3710.
Note: ECON*4710 and ECON*4810 are recommended for students wishing to pursue graduate studies.

Winter Semester
COOP*3000 [0.00] Co-op Work Term III

Summer Semester
COOP*4000 [0.00] Co-op Work Term IV

Semester 7 - Fall
HTM*4390 [0.50] Individuals and Groups in Organizations
2.00 electives or restricted electives

Semester 8 - Winter
ECON*4800 [0.50] Theory of Strategic Management
2.00 electives or restricted electives

Restricted Electives
4.00 additional credits in economics, of which
• at most 0.50 credits can be at the 2000 level
• at least 0.50 credits must be at the 4000 level
• 1.50 credits are from the following:
  ECON*3510 [0.50] Money, Credit and the Financial System
  ECON*3520 [0.50] Labour Economics
  ECON*3530 [0.50] Industrial Organization
  ECON*3660 [0.50] Economics of Equity Markets

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1.50 credits from the following:
AGEC*3310 [0.50] Operations Management
AGEC*3330 [0.50] Intermediate Accounting
AGEC*4240 [0.50] Futures and Options Markets
AGEC*4250 [0.50] Business Policy
AGEC*4360 [0.50] Marketing Research
AGEC*4370 [0.50] Marketing Management
AGEC*4410 [0.50] Sales and Sales Management

Finance Area of Emphasis Restricted Electives:
Students must take the following:
AGEC*4240 [0.50] Futures and Options Markets
ECON*3510 [0.50] Money, Credit and the Financial System
ECON*3660 [0.50] Economics of Equity Markets
ECON*3710 [0.50] Advanced Microeconomics
ECON*3770 [0.50] Mathematical Economics and Game Theory
ECON*4560 [0.50] Advanced Topics in Finance

2.00 additional credits in economics, of which
- 0.50 at most credits can be at the 2000 level
- at least 1.00 credits must be at the 4000 level

0.50 credits from the following:
AGEC*3310 [0.50] Operations Management
AGEC*3330 [0.50] Intermediate Accounting
AGEC*4250 [0.50] Business Policy
AGEC*4360 [0.50] Marketing Research
AGEC*4370 [0.50] Marketing Management
AGEC*4410 [0.50] Sales and Sales Management

Industry Area of Emphasis Restricted Electives:
Students must take the following:
AGEC*3310 [0.50] Operations Management
ECON*3350 [0.50] Industrial Organization
ECON*3710 [0.50] Advanced Microeconomics
ECON*3770 [0.50] Mathematical Economics and Game Theory
ECON*4780 [0.50] Topics in Industrial Organization

One of:
ECON*3200 [0.50] Economics of Industrial Relations
ECON*3520 [0.50] Labour Economics
ECON*3580 [0.50] Economics of Regulation

2.00 additional credits in Economics, of which
- at most 0.50 credits can be at the 2000 level
- at least 1.00 credits must be at the 4000 level

0.50 credits from the following:
AGEC*3330 [0.50] Intermediate Accounting
AGEC*4240 [0.50] Futures and Options Markets
AGEC*4250 [0.50] Business Policy
AGEC*4360 [0.50] Marketing Research
AGEC*4370 [0.50] Marketing Management
AGEC*4410 [0.50] Sales and Sales Management

Note: Only one of ECON*4900, ECON*4910 may count as one of the required minimum number of 4000 level economics credits in the B.Comm. program.

Marketing Management (MKMN)

Department of Marketing and Consumer Studies, College of Social and Applied Human Sciences.
The Marketing Management major is interdisciplinary and follows a liberal education philosophy.
Courses to be followed are from many disciplines, departments and colleges within the University, and are designed to span 5 component areas of study:
1. Literacy (writing and communication)
2. Numeracy (Mathematics, Statistics and Information Technology)
3. Social Science Foundations
4. Marketing Foundations (buyer/market studies)
5. Marketing Management

The approach taken in this major also places a special emphasis on research techniques for marketing as well as the requirements of marketing as a functional area of management. Students, while following the prescribed courses, may choose their electives in such a manner as to provide a particular applied focus to their marketing studies by a judicious choice from the other courses offered by the Department or the University. The major is administered by the Department of Marketing and Consumer Studies in the College of Social and Applied Human Sciences and students are urged to consult the departmental advisor or B.Comm. program counsellor.
For this major, 16.50 credits (2.00 selected from lists) are required and the remainder are electives.

Major
Semester 1
COST*1000 [0.50] Introduction to Marketing Management
ECON*1050 [0.50] Introductory Microeconomics
MATH*1000 [0.50] Introductory Calculus
PSYC*1200 [0.50] Dynamics of Behaviour
0.50 from List A or elective
Note: Students who are exceptionally strong in mathematics may consult with their academic advisor to substitute an alternative mathematics course for MATH*1000 (MATH*1080 or MATH*1200).

Semester 2
AGEC*2220 [0.50] Financial Accounting
ECON*1100 [0.50] Introductory Macroeconomics
PSYC*2310 [0.50] Introduction to Social Psychology
0.50 from List A
0.50 elective

Semester 3
AGEC*2230 [0.50] Management Accounting
COST*2020 [0.50] Information Management
COST*2600 [0.50] Fundamentals of Consumer Behaviour
ECON*2310 [0.50] Intermediate Microeconomics
0.50 from List B
Note: COST*2600 may be taken in Semester 4.

Semester 4
COST*3040 [0.50] Business and Consumer Law
ECON*2410 [0.50] Intermediate Macroeconomics
STAT*2060 [0.50] Statistics for Business Decisions
0.50 from List B
One of:
HTM*2200 [0.50] Organizational Behaviour I
ISS*2500 [0.50] Management in Organizations

Semester 5
AGEC*3320 [0.50] Financial Management
COST*3020 [0.50] Services & Retail Marketing
COST*3030 [0.50] Research Methods
COST*3610 [0.50] Consumer Economics
0.50 from List A and/or up to 0.50 elective (if COST*3100 to be taken in Semester 6)
Note: Students only take one of COST*3610 in Semester 5 OR COST*3100 in Semester 6.
Note: COST*3020, COST*3030, COST*3610 may be taken in Semester 6.

Semester 6
AGEC*3310 [0.50] Operations Management
COST*3010 [0.50] Quality Management
COST*3100 [0.50] Economic Behaviour of Households
COST*3620 [0.50] Advertising Management
0.50 from List A and/or up to 0.50 elective
Note: Students only take one of COST*3610 in Semester 5 OR COST*3100 in Semester 6.
Note: COST*3100 may be taken in Semester 5 and COST*3620 may be taken in Semester 7.

Semester 7
COST*3600 [0.50] Consumer Information Processes
COST*4040 [0.50] Management in Product Development
ECON*3560 [0.50] Theory of Finance
1.00 elective
Note: COST*3600 may be taken in Semester 6.

Semester 8
AGEC*4250 [0.50] Business Policy
COST*4050 [0.50] Consumer, Business and Government Relations
COST*4370 [0.50] Marketing Strategy
COST*4600 [0.50] International Marketing
0.50 elective
Note: COST*4370 may be taken in Semester 7.

List A - Restricted Electives (choose 2 from any 1 subgroup)
These courses have been selected to help students broaden their international and cross-cultural perspectives.

French Language Courses
FREN*1100 [0.50] Basic French: Listening
FREN*1110 [0.50] Elementary French
FREN*1200 [0.50] French Language I
FREN*2020 [0.50] France: Literature and Society
FREN*2030 [0.50] French Language II
FREN*2060 [0.50] Quebec: Literature and Society
FREN*3530 [0.50] Business French
German Language Courses
- GERM*1100 [0.50] Introductory German I
- GERM*1110 [0.50] Introductory German II
- GERM*2400 [0.50] Contemporary Germany
- GERM*2490 [0.50] Intermediate German I

History and Politics Courses
- EURO*1050 [0.50] The Emergence of a United Europe
- EURO*2070 [0.50] European Integration, 1957-1992
- HIST*1150 [0.50] 20th-Century Global History
- HIST*2510 [0.50] The Emergence of Modern European Society 1789-1945
- HIST*2910 [0.50] History of Modern Asia
- HIST*3090 [0.50] Nationalism and Internationalism in Europe 1914-1957
- POLS*1500 [0.50] World Politics
- POLS*2100 [0.50] The State in Comparative Perspective
- POLS*3080 [0.50] Politics of Latin America
- POLS*3280 [0.50] Modern Political Ideologies
- POLS*3460 [0.50] Communism and Post-Communism
- POLS*3890 [0.50] Government and Politics of India
- POLS*3920 [0.50] Modern China

Italian Language Courses
- ITAL*1060 [0.50] Introductory Italian I
- ITAL*1070 [0.50] Introductory Italian II
- ITAL*2060 [0.50] Intermediate Italian I
- ITAL*2070 [0.50] Intermediate Italian II

Spanish Language Courses
- SPAN*1100 [0.50] Introductory Spanish
- SPAN*1110 [0.50] Intermediate Spanish
- SPAN*2000 [0.50] Spanish Language I
- SPAN*2010 [0.50] Spanish Language II
- SPAN*2040 [0.50] Spanish Civilization

List B - Restricted Electives (choose 2)
- AGEC*3320 [0.50] Financial Management
- COST*3610 [0.50] Consumer Economics
- COST*3620 [0.50] Advertising Management

Marketing Management (Co-op) (MKMN:C)

- COOP*1100 [0.00] Introduction to Co-operative Education
- COST*2020 [0.50] Information Management
- COST*2600 [0.50] Fundamentals of Consumer Behaviour
- ECON*2310 [0.50] Intermediate Microeconomics

Semester 4 - Winter
- COST*3030 [0.50] Research Methods
- COST*3040 [0.50] Business and Consumer Law
- ECON*2410 [0.50] Intermediate Macroeconomics

Summer Semester
- COOP*1000 [0.00] Co-op Work Term I

Fall Semester
- COOP*2000 [0.00] Co-op Work Term II

Semester 5 - Winter
- AGEC*3310 [0.50] Operations Management
- COST*3010 [0.50] Quality Management
- COST*3020 [0.50] Services & Retail Marketing
- COST*3100 [0.50] Economic Behaviour of Households
- COST*3600 [0.50] Consumer Information Processes

Summer Semester
- COOP*3000 [0.00] Co-op Work Term III

Semester 6 - Fall
- COOP*4000 [0.00] Co-op Work Term IV

Semester 7 - Fall
- COST*4040 [0.50] Management in Product Development
- COST*4050 [0.50] Consumer, Business and Government Relations
- COST*4370 [0.50] Marketing Strategy
- ECON*3560 [0.50] Theory of Finance

List A - Restricted Electives (choose 2 from any 1 subgroup)

These courses have been selected to help students broaden their international and cross-cultural perspectives.

French Language Courses
- FREN*1100 [0.50] Basic French: Listening
- FREN*1110 [0.50] Elementary French
- FREN*1120 [0.50] French Language I
- FREN*2020 [0.50] France: Literature and Society
- FREN*2030 [0.50] French Language II
- FREN*2060 [0.50] Quebec: Literature and Society
- FREN*3530 [0.50] Business French

German Language Courses
- GERM*1100 [0.50] Introductory German I
- GERM*1110 [0.50] Introductory German II
- GERM*2400 [0.50] Contemporary Germany
- GERM*2490 [0.50] Intermediate German I

History and Politics Courses
- EURO*1050 [0.50] The Emergence of a United Europe
- EURO*2070 [0.50] European Integration, 1957-1992
- HIST*1150 [0.50] 20th-Century Global History
- HIST*2510 [0.50] The Emergence of Modern European Society 1789-1945
- HIST*2910 [0.50] History of Modern Asia
- HIST*3090 [0.50] Nationalism and Internationalism in Europe 1914-1957
- POLS*1500 [0.50] World Politics
- POLS*3210 [0.50] Political Structures of Latin America
- POLS*3380 [0.50] The State in Comparative Perspective
- POLS*3900 [0.50] Politics of Latin America
POLS*3280 [0.50] Modern Political Ideologies
POLS*3460 [0.50] Communism and Post-Communism
POLS*3890 [0.50] Government and Politics of India
POLS*3920 [0.50] Modern China

Italian Language Courses
ITAL*1060 [0.50] Introductory Italian I
ITAL*1070 [0.50] Introductory Italian II
ITAL*2060 [0.50] Intermediate Italian I
ITAL*2070 [0.50] Intermediate Italian II

Spanish Language Courses
SPAN*1100 [0.50] Introductory Spanish
SPAN*1110 [0.50] Intermediate Spanish
SPAN*2000 [0.50] Spanish Language I
SPAN*2010 [0.50] Spanish Language II
SPAN*2040 [0.50] Spanish Civilization

List B - Restricted Electives (choose 2)

This group of courses encourages students to increase their fundamental background and/or add to business applications.

AGEC*3320 [0.50] Business and Consumer Law
AGEC*3330 [0.50] Financial Management

Semester 5

STAT*2060 [0.50] Statistics for Business Decisions
POLS*3270 [0.50] Local Government in Ontario

Semester 4

0.50 elective

ECON*2310 [0.50] Intermediate Microeconomics
ECON*2200 [0.50] Industrial Relations

Semester 3

1.00 elective

POLS*2250 [0.50] Public Administration
SOC*1100 [0.50] Sociology

One of:
PHIL*2100 [0.50] Critical Thinking
PHIL*2600 [0.50] Business and Professional Ethics

Public Management (PMGT)

Department of Political Science, College of Social and Applied Human Sciences.
The Public Management program is designed to lead to an understanding of public sector administration and management from the "inside" - as an integrated enterprise - as well as from the outside - as a series of policy decisions and outcomes. Characterized by a multi-disciplinary approach employing both political and business-oriented analysis, students will confront questions of why politicians and public servants behave the way they do, and how their policy choices and processes can be optimized. Management of public entities features a unique set of challenges that arise from and interact with basic political issues like democracy, accountability, equity, fairness, and justice. At the same time it necessarily faces concerns common to all organizations, such as efficiency, human and capital resource management, morale, planning, and adaptation to change.

The program will appeal to students interested in the public service, public sector businesses or business-government relations. A co-ordinated sequence of courses is capped in the final year by a year long research project and thesis.

For this major, 15.00 of the 20.00 credits are specified as core requirements and the remaining 5.00 as electives. A list of suggested electives follows the description of required courses.

Major

Semester 1

COST*1000 [0.50] Introduction to Marketing Management
ECON*1050 [0.50] Introductory Microeconomics
POLS*1400 [0.50] Public Management and Administration
PSYC*1200 [0.50] Dynamics of Behaviour
0.50 elective

Semester 2

ECON*1100 [0.50] Introductory Macroeconomics
POLS*2250 [0.50] Public Administration
POLS*2300 [0.50] Canadian Government
1.00 elective

Semester 3

AGEC*2220 [0.50] Financial Accounting
ECON*2200 [0.50] Industrial Relations
ECON*2310 [0.50] Intermediate Microeconomics
POLS*3250 [0.50] Public Policy: Challenges and Prospects
0.50 elective

Semester 4

AGEC*2230 [0.50] Management Accounting
COST*2600 [0.50] Fundamentals of Consumer Behaviour
POLS*3270 [0.50] Local Government in Ontario
STAT*2060 [0.50] Statistics for Business Decisions
0.50 elective

POLS*3110 [0.50] Politics of Ontario
POLS*3210 [0.50] The Constitution and Canadian Federalism
0.50 elective

Semester 6

AGEC*3310 [0.50] Operations Management
ECON*3610 [0.50] Public Economics
PHIL*2600 [0.50] Business and Professional Ethics
POLS*3670 [0.50] Comparative Public Policy and Administration
0.50 elective

Semester 7

ECON*3560 [0.50] Theory of Finance
HTM*3000 [0.50] Human Resources Management
POLS*3470 [0.50] Business-Government Relations in Canada
POLS*4970 [0.50] Honours Political Science Research I
0.50 elective

Semester 8

AGEC*4250 [0.50] Business Policy
POLS*4250 [0.50] Problems in Public Administration and Public Policy
POLS*4980 [0.50] Honours Political Science Research II
1.00 elective

Electives

The following is a list of courses which may be of interest to students selecting their electives.

COST*2020 [0.50] Information Management
ECON*2410 [0.50] Intermediate Macroeconomics
HTM*4390 [0.50] Management in Organizations
ISS*2500 [0.50] Individuals and Groups in Organizations
POLS*3330 [0.50] Politics and Trade Liberalization in the Americas
POLS*3370 [0.50] Environmental Policy Formation and Administration
POLS*3440 [0.50] Corruption, Scandal and Political Ethics
POLS*3790 [0.50] The Political Economy of International Relations
POLS*3930 [0.50] Politics of the Agri-Food System
SOAN*2030 [0.50] Globalization of Work and Organizations

Tourism Management (TMGT)

School of Hospitality and Tourism Management, College of Social and Applied Human Sciences.

As the world's largest industry, tourism encompasses a wide range of public and private enterprises that require knowledgeable and talented management professionals. The program in Tourism Management builds on a strong base of hospitality management courses (human resources management, accounting, finance, cost controls, hotel operations). In conjunction with these courses the program provides specialized courses dealing with the economic, social, cultural and environmental aspects of the industry as well as the critical functions of tourism marketing, distribution, planning and development. In addition, there are opportunities to develop expertise in eco-tourism and international tourism operations. The study of languages is a core component of this program. Verified work experience in the hospitality and tourism industry is required for students to be eligible to graduate. Group work is a significant part of core credit work.

For this major, 15.00 of the 20.00 credits are specified as core requirements, 2.00 as restricted electives (List A), and the remaining 2.50 as electives.

Major

Semester 1

ECON*1050 [0.50] Introductory Microeconomics
GEOG*1220 [0.50] Human Impact on the Environment
HTM*1000 [0.50] Introduction to Hospitality and Tourism Management
POLS*1400 [0.50] Public Management and Administration
PSYC*1200 [0.50] Dynamics of Behaviour

Semester 2

ECON*1100 [0.50] Introductory Macroeconomics
HTM*2000 [0.50] Hospitality and Tourism Purchasing Management
HTM*2010 [0.50] Hospitality and Tourism Business Communications
HTM*2100 [0.50] Lodging Operations
HTM*2120 [0.50] Hospitality and Tourism Marketing I

Semester 3

AGEC*2220 [0.50] Financial Accounting
COST*2020 [0.50] Information Management
ECON*2310 [0.50] Intermediate Microeconomics
HTM*2050 [0.50] Dimensions of Tourism
0.50 from List A or elective

Semester 4

HTM*2030 [0.50] Control Systems in the Hospitality and Tourism Industry
HTM*2170 [0.50] Canadian Tourism Policy, Planning and Development
HTM*2200 [0.50] Organizational Behaviour I
STAT*2060 [0.50] Statistics for Business Decisions

Last Revision: October 18, 2005
2005-2006 University of Guelph Undergraduate Calendar
HTM*2070 [0.50] Meetings and Convention Management

Courses related to Hospitality and Tourism Management:

COST*4050 [0.50] Consumer, Business and Government Relations

COST*3620 [0.50] Advertising Management

COST*3600 [0.50] Consumer Information Processes

COST*3620 [0.50] Advertising Management

COST*4050 [0.50] Consumer, Business and Government Relations

COST*1000 [0.50] Introduction to Marketing Management

AGEC*4370 [0.50] Marketing Management

PSYC*3060 [0.50] Occupational Health Psychology

PHIL*2600 [0.50] Business and Professional Ethics

PHIL*1010 [0.50] Introductory Philosophy: Social and Political Issues

ANTH*1150 [0.50] Anthropology

ANTH*2160 [0.50] Social Anthropology

COST*4370 [0.50] Marketing Management

COST*1000 [0.50] Introduction to Marketing Management

COST*2600 [0.50] Fundamentals of Consumer Behaviour

COST*3600 [0.50] Consumer Information Processes

COST*3620 [0.50] Advertising Management

COST*4050 [0.50] Consumer, Business and Government Relations

Courses related to Hospitality and Tourism Management:

HTM*2070 [0.50] Meetings and Convention Management

HTM*2740 [0.50] Cultural Aspects of Food

HTM*3030 [0.50] Beverage Management

HTM*3060 [0.50] Lodging Management

HTM*3090 [1.00] Foodservice Operations Management

HTM*3180 [0.50] Casino Operations Management

HTM*3200 [0.50] Club Management Operations

HTM*3250 [0.50] Tourism in Canada

HTM*3780 [0.50] Economics of Food Usage

HTM*4050 [0.50] Wine and Oenology

HTM*4090 [0.50] Hospitality and Tourism Facilities Management and Design

HTM*4110 [0.50] Restaurant Operations

HTM*4120 [0.50] Hospitality Business Management

HTM*4130 [0.50] Current Management Topics

HTM*4140 [0.50] Current Management Topics

HTM*4150 [0.50] Current Management Topics

HTM*4500 [0.50] Special Study in Hospitality and Tourism
Bachelor of Computing (B.Comp.)

Students graduating from this program obtain a solid foundation in the theory and application of all aspects of computing and information science. Core subjects, combined with in-depth study in an area of application, give students the freedom to combine their interests in computing with other areas of study and application.

Guelph's Bachelor of Computing degree combines the necessary theoretical background with an applied focus to learning. Course projects which are based on real-world software development scenarios allow students to get the practical experience valued by today's high-tech employers. The focused study in a second discipline gives students the necessary background to effectively apply their knowledge.

For the degree of Bachelor of Computing the University of Guelph offers a specialized program requiring the equivalent of 8 semesters of successful full-time study (honours program) and a general program requiring the equivalent of 6 semesters of successful full-time study (general program). The honours program is also available as a Co-op degree.

A student may register in any of the 3 semesters (Summer, Fall, Winter). Since not all courses are offered in every semester and prerequisite dependencies must be observed, students are encouraged to consult the program counsellor for the B.Comp. program to plan an initial program of study or when considering modifications to the suggested schedule of studies list (below).

Program Information

B.Comp. Program Regulations

The general program is designed to provide a sound general education in computing. The honours program is designed to provide depth of study and specialization beyond that available in the general program, while at the same time ensuring a complementary background in an area of application.

1. Requirements for a General Degree

To graduate from a general program a student must:

a. earn 15.00 credits. These must include courses that fulfill the distribution requirements of the General Degree (see below). At least 4.00 credits must be at the 3000 level or above. Not more than 6.00 credits at the introductory (1000) level may be counted towards the 15.00 credit requirement.

b. no more than 11.00 credits in any one subject or discipline, as indicated by the course prefix code, can be counted towards a general degree.

c. successfully complete the following credits:

   CIS*1500 [0.50] Introduction to Programming
   CIS*1910 [0.50] Discrete Structures in Computing I
   CIS*2430 [0.50] Object Oriented Programming
   CIS*2500 [0.50] Intermediate Programming
   CIS*2520 [0.50] Data Structures
   CIS*2750 [0.75] Software Systems Development and Integration
   CIS*2910 [0.50] Discrete Structures in Computing II
   CIS*3530 [0.50] Data Base Systems and Concepts
   0.5 additional C.I.S. or STAT credits at the 2000 level or higher
   1.0 additional C.I.S. credits at 3000 level or higher

d. Earn 2.00 science credits (list of courses available in the Program Counsellor's office) and 2.00 credits in the College of Arts or College of Social and Applied Human Sciences in addition to the courses listed in c.

2. Requirements for an Honours Degree

To graduate from an honours program a student must:

a. successfully complete 20.00 credits. These must include the 11.75 credits that fulfill the Computing Core Requirements (below), a minimum of 4.00 credits in an Area of Application (below) and an additional 4.25 credits as free electives. Not more than 6.00 credits from courses at the introductory (1000) level may be counted towards the 20.00 credit requirement.

   The program requires 6.00 credits at the 3000 level or above and 2.00 credits at the 4000 level, while the area of application requires an additional 1.00 credits at the 3000 level or above. The Area of Application is a graduation requirement and must be approved by Semester 4 by the faculty advisor.

b. complete the following Computing Core Requirements:

   CIS*1500 [0.50] Introduction to Programming
   CIS*1910 [0.50] Discrete Structures in Computing I
   CIS*2030 [0.50] Structure and Application of Microcomputers
   CIS*2430 [0.50] Object Oriented Programming
   CIS*2460 [0.50] Modelling of Computer Systems
   CIS*2500 [0.50] Intermediate Programming
   CIS*2520 [0.50] Data Structures
   CIS*2750 [0.75] Software Systems Development and Integration
   CIS*2910 [0.50] Discrete Structures in Computing II
   CIS*3110 [0.50] Operating Systems
   CIS*3490 [0.50] The Analysis and Design of Computer Algorithms
   CIS*3530 [0.50] Data Base Systems and Concepts
   CIS*3750 [0.75] System Analysis and Design in Applications

   1.0 additional C.I.S. credits at the 4000 level or above
   0.5 additional C.I.S. or STAT credits at the 2000 level or higher
   1.0 additional C.I.S. credits at the 3000 level or higher

   0.5 credits in the Area of Application or elective

   0.75 credits in the Area of Application or elective

Library Sciences in addition to the courses listed in c.

3. Continuation of Study

Students are advised to consult the regulations for Continuation of Study which are outlined in detail in Section VIII--Degree Regulations & Procedures of this calendar.

Schedule of Studies

Since many courses are offered in only one semester and course prerequisites place an ordering on courses, the following program of studies is designed so that students can schedule their courses over 8 semesters of study. Students deviating from this schedule must consult with their academic advisor. This schedule assumes a Fall/Winter semester sequence.

Major (Honours Program)

School of Computing and Information Science, College of Physical and Engineering Science.

Semester 1

   CIS*1500 [0.50] Introduction to Programming
   MATH*1200 [0.50] Calculus I
   1.50 credits in the Area of Application or elective

Semester 2

   CIS*1910 [0.50] Discrete Structures in Computing I
   CIS*2500 [0.50] Intermediate Programming
   1.50 credits in the Area of Application or elective

Semester 3

   CIS*2030 [0.50] Structure and Application of Microcomputers
   CIS*2430 [0.50] Object Oriented Programming
   CIS*2520 [0.50] Data Structures
   CIS*2910 [0.50] Discrete Structures in Computing II
   0.50 credits in the Area of Application or elective

Semester 4

   CIS*2750 [0.75] Software Systems Development and Integration
   CIS*3110 [0.50] Operating Systems
   CIS*3490 [0.50] The Analysis and Design of Computer Algorithms
   STAT*2040 [0.50] Statistics I
   0.25 credits in the Area of Application or elective

Semester 5

   CIS*2460 [0.50] Modelling of Computer Systems
   CIS*3530 [0.50] Data Base Systems and Concepts
   CIS*3750 [0.75] System Analysis and Design in Applications
   0.75 credits in the Area of Application or elective

Semester 6

   CIS*3760 [0.75] Software Engineering
   CIS*3765 [0.75] System Analysis and Design in Applications
   0.50 C.I.S elective at the 3000 level or above
   1.25 credits in the Area of Application or elective

OR Alternative 2

   (1.50 C.I.S electives at the 3000 level or above
   1.00 credits in the Area of Application or elective)

Semester 7

   1.00 credits in the Area of Application or elective
   0.50 credits in C.I.S. at 3000 level or above
   1.00 credits in C.I.S. at the 4000 level

Semester 8

   CIS*4000 [0.50] Applications of Computing Seminar
   1.50 credits in the Area of Application or elective

X. Degree Programs, Bachelor of Computing (B.Comp.)  279

CIS*3750 [0.75] System Analysis and Design in Applications
CIS*4000 [0.50] Applications of Computing Seminar
MATH*1200 [0.50] Calculus I
STAT*2040 [0.50] Statistics I
1.75 additional C.I.S. credits at the 3000 level or above
1.50 additional C.I.S. credits at the 4000 level or above

c. obtain a cumulative average at least 70% in CIS courses. Students who do not satisfy this requirement at graduation may apply for a General Degree.

d. earn at least 4.00 credits in an Area of Application with at least 1.00 credits at the 3000 level or above. These credits must be taken from a single department or subject other than Computing and Information Science.

An area of Application normally consists of 4.00 credits (normally 8 courses) of a minor. Minors in the B.A. program and B.Sc. Minors are listed in Section X of the Calendar. A student may complete a minor should they decide to do so.

Students must consult the faculty advisor for approval of their Area of Application in semester 4.

Some courses may have enrolment restrictions placed on them.

Students failing to meet the graduation requirements of the honours program may apply to graduate with a general degree if the requirements for the general degree are met.
### Stream A Co-Op Schedule of Studies

<table>
<thead>
<tr>
<th>Semester</th>
<th>Fall Work Term</th>
<th>Winter Work Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>CIS*1500 [0.50]</td>
<td>MATH*1200 [0.50]</td>
</tr>
<tr>
<td></td>
<td>Introduction to Programming</td>
<td>Calculus I</td>
</tr>
<tr>
<td>2</td>
<td>CIS*1910 [0.50]</td>
<td>CIS*2500 [0.50]</td>
</tr>
<tr>
<td></td>
<td>Discrete Structures in Computing I</td>
<td>Intermediate Programming</td>
</tr>
<tr>
<td></td>
<td>COOP*1100 [0.00]</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1.50 credits in the Area of Application or elective</td>
<td>1.50 credits in the Area of Application or elective</td>
</tr>
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<td>3 (Summer)</td>
<td>CIS*2030 [0.50]</td>
<td>CIS*2430 [0.50]</td>
</tr>
<tr>
<td></td>
<td>Structure and Application of Microcomputers</td>
<td>Object Oriented Programming</td>
</tr>
<tr>
<td></td>
<td>CIS*2520 [0.50]</td>
<td>CIS*2910 [0.50]</td>
</tr>
<tr>
<td></td>
<td>Data Structures</td>
<td>Discrete Structures in Computing II</td>
</tr>
<tr>
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<td>0.50 credits in the Area of Application or elective</td>
<td>0.50 credits in the Area of Application or elective</td>
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<tr>
<td>Fall Semester</td>
<td>COOP*1000 Work Term I</td>
<td>COOP*1000 Work Term 2</td>
</tr>
<tr>
<td>4 (Winter)</td>
<td>CIS*2750 [0.75]</td>
<td>CIS*3110 [0.50]</td>
</tr>
<tr>
<td></td>
<td>Software Systems Development and Integration</td>
<td>Operating Systems</td>
</tr>
<tr>
<td></td>
<td>CIS*3490 [0.50]</td>
<td>CIS*3750 [0.75]</td>
</tr>
<tr>
<td></td>
<td>The Analysis and Design of Computer Algorithms</td>
<td>System Analysis and Design in Applications</td>
</tr>
<tr>
<td></td>
<td>STAT*2040 [0.50]</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.25 credits in the Area of Application or elective</td>
<td>0.75 credits in the Area of Application or elective</td>
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<tr>
<td>Summer Semester</td>
<td>COOP*2000 Work Term 2</td>
<td>COOP*2000 Work Term 3</td>
</tr>
<tr>
<td>5 (Fall)</td>
<td>CIS*2460 [0.50]</td>
<td>CIS*3530 [0.50]</td>
</tr>
<tr>
<td></td>
<td>Modelling of Computer Systems</td>
<td>Data Base Systems and Concepts</td>
</tr>
<tr>
<td></td>
<td>CIS*3750 [0.75]</td>
<td>CIS*4000 [0.50]</td>
</tr>
<tr>
<td></td>
<td>System Analysis and Design in Applications</td>
<td>Applications of Computing Seminar</td>
</tr>
<tr>
<td></td>
<td>0.75 credits in the Area of Application or elective</td>
<td>1.50 credits in the Area of Application or elective</td>
</tr>
<tr>
<td>Winter Semester</td>
<td>COOP*3000 Work Term 3</td>
<td>COOP*3000 Work Term 4</td>
</tr>
<tr>
<td>6 (Summer)</td>
<td>Alternative 1 [Recommended]</td>
<td>CIS*3760 [0.75]</td>
</tr>
<tr>
<td></td>
<td>CIS*3760 [0.75]</td>
<td>Software Engineering</td>
</tr>
<tr>
<td></td>
<td>0.50 C.I.S elective at the 3000 level or above</td>
<td>0.50 credits in the Area of Application or elective</td>
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<tr>
<td></td>
<td>1.25 credits in the Area of Application or elective</td>
<td>1.00 credits in the Area of Application or elective</td>
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<tr>
<td></td>
<td>OR Alternative 2</td>
<td>OR Alternative 2</td>
</tr>
<tr>
<td></td>
<td>(1.50 C.I.S electives at the 3000 level or above</td>
<td>(1.50 C.I.S electives at the 3000 level or above</td>
</tr>
<tr>
<td></td>
<td>1.00 credits in the Area of Application or elective)</td>
<td></td>
</tr>
<tr>
<td>Semester 7 (Fall)</td>
<td>1.00 credits in the Area of Application or elective</td>
<td>1.50 credits in the Area of Application or elective</td>
</tr>
<tr>
<td></td>
<td>0.50 credits in C.I.S. at 3000 level or above</td>
<td>0.50 credits in C.I.S. at the 4000 level</td>
</tr>
<tr>
<td></td>
<td>1.00 credits in C.I.S. at the 4000 level</td>
<td></td>
</tr>
<tr>
<td>Semester 8 (Winter)</td>
<td>CIS*4000 [0.50]</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Applications of Computing Seminar</td>
<td>1.50 credits in the Area of Application or elective</td>
</tr>
<tr>
<td></td>
<td>0.50 credits in C.I.S. at the 4000 level</td>
<td>0.50 credits in C.I.S. at the 4000 level</td>
</tr>
</tbody>
</table>
Landscape Architecture is the art and science of designing and conserving land and water for human use and enjoyment. As a profession, Landscape Architecture is concerned with two scales of planning and design. The first scale is with the development of specific sites for residential, recreational, institutional, commercial and industrial projects. The second scale pertains to the regional landscape where the issues include management plans for forest, park and recreation areas, agricultural lands protection, gravel pit mining and restoration, hazard land studies, and visual resource analysis.

**Program Information**

**Objectives of the Program**

In education and practice landscape architecture involves both planning and design. Its unique responsibility is to integrate societal needs with the natural environment in a manner which is non-polluting and results in minimal alteration to natural ecosystems. Frequently the landscape architect must work closely with architects, urban planners and engineers, and where the conservation and creation of natural settings is concerned they must work with scientists in this field. The challenge confronting the professional landscape architect is significant and promises to become even greater in the future.

Persons interested in pursuing a career in Landscape Architecture should possess several basic qualities. It is essential that the prospective student have a keen interest in art and design which may be cultivated to professional competence. They should have a strong interest in nature, a love of plants and a desire to arrange landscapes into beautiful and functional forms. Lastly, they should possess a strong interest in people as the art of landscape architecture is directed toward creating landscapes which fulfill people's requirements for use and enjoyment. The program in Landscape Architecture prepares the prospective graduate for a wide variety of career opportunities in private practice or in public agencies at the municipal, provincial and national levels. The undergraduate training is a sound basis for graduate study in landscape architecture, urban and regional planning and resource development.

**Accreditation**

The baccalaureate degree program in Landscape Architecture is recognized by the Canadian Society of Landscape Architects and the American Society of Landscape Architects. The program is fully accredited by the Landscape Architectural Accreditation Board (L.A.A.B.): Canadian Society of Landscape Architects (C.S.L.A.) and American Society of Landscape Architects (A.S.L.A.). Students are entitled to apply for registration as a Landscape Architect within the Province of Ontario after completing 3 years of acceptable experience as a Landscape Architectural intern member of the Ontario Association of Landscape Architects and successful completion of an examination in professional practice and ethics.

**Admission to the Landscape Architecture Program**

Students wishing to enter the program of study leading to the Bachelor of Landscape Architecture degree should consult Section IV--Admission Information.

**Degree**

The degree granted for the successful completion of the program is the Bachelor of Landscape Architecture (B.L.A.).

**Selection of Electives**

All electives may be chosen independently although counselling with the departmental advisor is highly, recommended. In selecting electives two approaches may be followed: 1) electives may be chosen from a variety of disciplines to achieve breadth of knowledge or, 2) all or most electives may be chosen in a subject area in order to pursue a particular field of interest in depth. Some of these fields might include agricultural and biological sciences, environmental studies, studio arts, geography, philosophy or sociology.

Students wishing to elect a permissible substitute shall do so in consultation with their departmental advisor. A substitute course will normally be in the same academic area as that listed in the Landscape Architecture Program.

**Field Trips**

Participation in organized visits to site study areas and project sites is obligatory for all students taking certain courses in landscape architecture. To the extent that it is possible, students will be informed of the dates, destinations and cost of field trips prior to registration. Students who have reason to seek exemption from the requirement may apply to the director prior to registration for permission to substitute papers on appropriate topics.

**Pre-Professional Experience**

It is considered highly advisable that the prospective student prepare for future professional practice through summer employment in the landscape industry. Two summers spent in landscape related work followed by 1 summer in a professional office is considered to be a desirable sequence of employment.

**Continuation of Study**

Students are advised to consult the regulations for continuation of study within the program which are outlined in detail in Section VIII--Undergraduate Degree Regulations & Procedures.

**Conditions for Graduation**

In order to qualify for graduation from the 8 semester Honours B.L.A. program, the student must successfully complete all of the courses approved for the program (20.00 credits).

**Schedule of Studies**

**Major (Honours Program)**

<table>
<thead>
<tr>
<th>Semester</th>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>BIOL*1030</td>
<td>Biology I</td>
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<tr>
<td></td>
<td>LARC*1100</td>
<td>Design and Communications Studio</td>
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<td></td>
<td>ENGL*1200</td>
<td>Reading the Contemporary World</td>
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<tr>
<td></td>
<td>LARC*1950</td>
<td>History of Cultural Form I</td>
<td>0.50</td>
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<td>One of:</td>
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<tr>
<td></td>
<td>PHIL*1010</td>
<td>Introductory Philosophy: Social and Political Issues</td>
<td>0.50</td>
</tr>
<tr>
<td></td>
<td>PSYC*1100</td>
<td>Principles of Behaviour</td>
<td>0.50</td>
</tr>
<tr>
<td></td>
<td>SOC*1100</td>
<td>Sociology</td>
<td>0.50</td>
</tr>
<tr>
<td></td>
<td>ANTH*1150</td>
<td>Anthropology</td>
<td>0.50</td>
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<tr>
<td>2</td>
<td>LARC*2020</td>
<td>Design Studio</td>
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<td></td>
<td>PHIL*2070</td>
<td>Philosophy of the Environment</td>
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<tr>
<td></td>
<td>LARC*2420</td>
<td>Materials and Techniques</td>
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<tr>
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<td>0.50 Studio Arts elective (2000 level Studio)</td>
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<tr>
<td></td>
<td>0.50 Social Science elective</td>
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<tr>
<td>3</td>
<td>LARC*3040</td>
<td>Site Planning and Design Studio</td>
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<td>LARC*2410</td>
<td>Site Engineering</td>
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<td>LARC*2100</td>
<td>Landscape Analysis</td>
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<td></td>
<td>LARC*3330</td>
<td>Planting Design I</td>
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<td></td>
<td>LARC*3050</td>
<td>Landscape Architecture I</td>
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<tr>
<td></td>
<td>LARC*3430</td>
<td>Landscape Construction I</td>
<td>0.50</td>
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<tr>
<td></td>
<td>0.50 elective</td>
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<tr>
<td>4</td>
<td>LARC*3060</td>
<td>Landscape Architecture II</td>
<td>0.75</td>
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<tr>
<td></td>
<td>ENV*3320</td>
<td>Principles of Landscape Ecology *</td>
<td>0.50</td>
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<tr>
<td></td>
<td>LARC*3440</td>
<td>Landscape Construction II</td>
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<tr>
<td></td>
<td>LARC*4610</td>
<td>Professional Practice</td>
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<tr>
<td></td>
<td>0.50 elective</td>
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* is offered in even-numbered years; to alternate with elective in semester 7

<table>
<thead>
<tr>
<th>Semester</th>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>LARC*3070</td>
<td>Landscape Architecture III</td>
<td>1.00</td>
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<tr>
<td></td>
<td>LARC*4101</td>
<td>Design Thesis</td>
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</tr>
<tr>
<td></td>
<td>1.00 elective</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Semester 8
LARC*4090 [0.50] Seminar
LARC*4102 [1.00] Design Thesis
1.00 electives*
* one or more of these electives may be taken in a Summer semester, if preferred
Bachelor of Science (B.Sc.)

The University of Guelph offers general and honours programs leading to the B.Sc. degree. The general program consists of a minimum of 15.00 credits (usually 30 semester courses) involving normally 6 semesters of study. The requirements for the honours program is a minimum of 20.00 credits (usually 40 semester courses) which may be obtained over 8 semesters of study. Some majors may require more than 20.00 credits.

The Three Semester System

Most of the B.Sc. programs operate on the three semester system. In this system each of the Fall, Winter and Summer semesters is of 12 weeks duration. Two semesters are equivalent to 1 academic year at a university on the traditional system. In the three semester system, students may vary their rate of progress towards graduation. However, since many science courses must be taken in a certain sequence and not all courses are offered each semester, most science students are required to proceed from semester to semester in restricted patterns. Furthermore, the advanced courses of the honours programs are offered only in the regular fall and winter semesters. Additional information may be obtained from Admissions Services, Office of Registrarial Services. The three-semester system and the pass-by-course method of advancement allow considerable flexibility of program arrangement. In addition, a variety of program contents is available which the student may modify to meet individual requirements.

Transfer from One B.Sc. Program to Another

On entrance to the B.Sc. program, the student may elect to follow an intended area of specialization or to postpone this decision until a later semester. The choice of a particular program of study may be most effectively made at the end of Semester 3 or 4. Judicious selection of courses in each and every semester will allow the easiest transfer between programs without incurring the need for additional semesters of study. The program counsellor of the particular college from which it is anticipated that the majority of science courses will be taken should be consulted for advice.

Program Information

General Program Requirements

The general B.Sc. degree requires the successful completion of 15.00 required credits. Normally 2.50 credits (usually 5 courses) are taken in each semester so that the degree may be completed in 6 semesters. The general science program is designed to give a broad general training in biological science, chemistry, physics and mathematical science. This is achieved by requiring each student to take a minimum of 1.50 credits (usually 3 courses) in each of the above areas. The courses to be taken in semesters 4 to 6 may be selected to allow a broad study of the sciences.

Honours Program Requirements

In order to graduate in the honours program, students must fulfill all program requirements for the program and have achieved a 60%, or higher, cumulative average over all course attempts. Normally 2.50 credits (usually 5 courses) are taken in each semester so that the degree may be completed in generally 8 semesters. The following types of honours programs are offered:

Honours Major Programs

Major in a subject

Major in a subject (with a minor)

Honours Major

These programs permit a student to study science in greater depth than is permitted by the general program. The student is required to take a minimum of 1.00 credit (usually 2 courses) in each of biological science, chemistry, physics and mathematical science. In each of semesters 3 to 8, students select science credits so that the total program provides a broad science training with concentration in an area of physical science or biological science.

A major normally consists of certain prescribed courses (minimum of 8.00 credits) and a number of elective courses to complete the requirements for the degree. The composition of science courses selected must contain a sufficient number (minimum of 6.00 credits) of 3000 and 4000 level courses including a grouping (minimum of 2.00 credits) particularly at the 4000 level. A major program may be studied in conjunction with a minor in an area of science, humanities or social science.

Honours Minor

A minor is a group of courses which provides for exposure to and mastery of the fundamental principles of a subject. A minor consists of a minimum of 5.00 credits (normally 10 courses). It may also require certain other courses from other areas to be taken along with the specified courses of the minor. A minor is taken in conjunction with a major.

Students should seek advice from the program counsellor of either the College of Biological Science or the College of Physical and Engineering Science dependent upon their primary area(s) of interest. Refer to B.Sc. Program Requirements: Regulation 6. Double-Counting of Credits.

B.Sc. Program Requirements

Regulations 1, 2, 3 and 4 apply to all B.Sc. students.

1. Entry Credits

In general, the 4U or OAC credit or its equivalent is required in a subject area to allow entrance to the initial university course. Students who lack this requirement can remedy the deficiency by successful completion of:

- BIOL*1020 for students lacking biology
- CHEM*1060 for students lacking chemistry
- PHYS*1020 for students lacking physics

Not more than one of the above will be allowed for credit toward the B.Sc. degree.

2. Basic Science Core

In each of the first 2 semesters B.Sc. students must take one (1) of the specified courses in each of biology, chemistry, physics and mathematical science, and 1 other course which is normally an Arts or Social Science elective.

3. 1000 Level Credits

No B.Sc. program may include more than 7.00 credits at the 1000 level.

4. 3000 and 4000 Level Credits

There is a requirement for a minimum of 6.00 science credits at the 3000- and 4000-levels with a minimum of 2.00 credits at the 4000 level.

5. Science Credits

A minimum of 16.00 science credits (usually 32 courses) is required for the honours major program. The inclusion of a minor in a non-science area involves the reduction to 14.00 science credits (usually 28 courses) with the approval of the program counsellors.

Acceptable science courses in the following programs means "acceptable to the B.Sc. Program Committee". Lists of acceptable courses are available in the offices of the faculty advisors and the program counsellors and on the world wide web at the following address: http://www.bsc.uoguelph.ca/courseselection.shtml#which.

6. Double-Counting of Credits

A maximum of 2.00 credits required in a major program may be applied to meet the requirements of a minor program.

7. Continuation of Study

Students are advised to consult the regulations for continuation of study outlined in detail in Section VIII—Undergraduate Degree Regulations & Procedures.

Doctor of Veterinary Medicine

Students in the B.Sc. program who intend to apply for admission to the Doctor of Veterinary Medicine program should register for the Major Biological Science or Major Physical Science program, or the major of their choice. Prospective candidates for the D.V.M. program should consult the admission requirements for the program. Students may obtain assistance in selecting a program that will meet the requirements for the Doctor of Veterinary Program and for continuation in biological or physical science programs by consulting the appropriate Program Counsellor.

General Program (BSCG)

Continuation of Study

Students are advised to consult the regulations for continuation of study within the program which are outlined in detail in Section VIII—Undergraduate Degree Regulations & Procedures.

Conditions for Graduation

In order to qualify for graduation from the general program the student is required to attain a passing grade in a minimum of 15.00 required credits (usually 30 courses) as outlined in the Total Course Requirements for all students in the General Science Program.

Recommended Schedule for Students in Biological Science Areas

Semester 1*

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL*1030</td>
<td>0.50</td>
</tr>
<tr>
<td>CHEM*1040</td>
<td>0.50</td>
</tr>
<tr>
<td>MATH*1080</td>
<td>0.50</td>
</tr>
<tr>
<td>PHYS*1070</td>
<td>0.50</td>
</tr>
<tr>
<td>STAT*2040</td>
<td>0.50</td>
</tr>
<tr>
<td>MATH*2080</td>
<td>0.50</td>
</tr>
<tr>
<td>STAT*2040</td>
<td>0.50</td>
</tr>
<tr>
<td>PHYS*1080</td>
<td>0.50</td>
</tr>
<tr>
<td>PHYS*2040</td>
<td>0.50</td>
</tr>
</tbody>
</table>

0.50 credit in biological science

Semester 2

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL*1040</td>
<td>0.50</td>
</tr>
<tr>
<td>CHEM*1050</td>
<td>0.50</td>
</tr>
<tr>
<td>MATH*2080</td>
<td>0.50</td>
</tr>
<tr>
<td>STAT*2040</td>
<td>0.50</td>
</tr>
<tr>
<td>PHYS*1080</td>
<td>0.50</td>
</tr>
<tr>
<td>PHYS*2040</td>
<td>0.50</td>
</tr>
</tbody>
</table>

0.50 elective

Semester 3

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH*2080</td>
<td>0.50</td>
</tr>
<tr>
<td>PHYS*1080</td>
<td>0.50</td>
</tr>
<tr>
<td>PHYS*2040</td>
<td>0.50</td>
</tr>
</tbody>
</table>

0.50 credit in biological science
20.25 credits - Chemistry
21.75 credits - Chemical Physics
21.25 credits - Biophysics
20.00 credits - Biological Chemistry

Physical Sciences:
20.00 credits - Zoology
20.00 credits - Wildlife Biology
20.00 credits - Plant Biotechnology
20.00 credits - Plant Biology
20.00 credits - Molecular Biology & Genetics
20.00 credits - Nutritional and Nutraceutical Sciences
20.00 credits - Plant Biology
20.00 credits - Plant Biotechnology
20.00 credits - Wildlife Biology
20.00 credits - Zoology

Physical Sciences:
20.00 credits - Biophysical Chemistry
21.25 credits - Biophysics
21.75 credits - Chemical Physics
20.25 credits - Chemistry

Environmental Sciences:
20.25 credits - Biomedical Toxicology
20.00 credits - Earth Surface Science
20.00 credits - Ecology
20.00 credits - Environmental Biology
20.00 credits - Environmental Toxicology

Co-operative Educational Programs:
20.00 credits - Computing & Information Science
20.00 credits - Mathematics
20.00 credits - Statistics

Honours Program Minors
Minors are available in the following science areas with the particular credit requirements being given (additional minors are available from the College of Arts and the College of Social and Applied Human Sciences). A minor may include additional prerequisites - consult with the appropriate faculty advisor.

Biological Sciences:
5.00 credits - Biology
5.00 credits - Biochemistry
5.00 credits - Biotechnology
5.00 credits - Functional Foods and Nutraceuticals
5.00 credits - Genetics
5.00 credits - Microbiology
5.00 credits - Neuroscience
5.00 credits - Nutritional Sciences
5.00 credits - Plant Biology
5.00 credits - Zoology

Environmental Sciences:
5.00 credits - Ecology
5.00 credits - Forest Science
5.00 credits - Geographic Info. Sys. (G.I.S.) and Environmental Analysis
5.00 credits - Geology

Mathematical Sciences:
5.25 credits - Computing & Information Science
5.00 credits - Mathematics
5.00 credits - Statistics

Additional Disciplines:
5.00 credits - Business Administration
5.00 credits - Economics
5.00 credits - Psychology

Continuation of Study
Students are advised to consult the regulations for continuation of study within the program which are outlined in detail in Section VII - Undergraduate Degree Regulations & Procedures.

Conditions for Graduation
Schedules 1 and 2
In order to qualify for graduation from the honours program, the student must fulfill all program requirements and have achieved 60%, or higher, cumulative average in all course attempts.

Recommended Schedule for Students in Physical Science Areas

Semester 1*
BIOL*1030 [0.50] Biology I
CHEM*1040 [0.50] General Chemistry I
MATH*1200 [0.50] Calculus I
PHYS*1000 [0.50] An Introduction to Mechanics
0.50 Arts or Social Science elective

Semester 2
BIOL*1040 [0.50] Biology II
CHEM*1050 [0.50] General Chemistry II
MATH*1210 [0.50] Calculus II
PHYS*1010 [0.50] Introductory Electricity and Magnetism
0.50 elective

Semester 3
0.50 credit in biological science
0.50 credit in chemistry
0.50 credit in physics
0.50 elective
One of:
CIS*1200 [0.50] Introduction to Computing
STAT*2040 [0.50] Statistics I
STAT*2100 [0.50] Introductory Probability and Statistics

Semester 4 to 6
A minimum of 2.50 credits in each semester, including 2.00 acceptable science courses per semester. For details consult 'Total Course Requirements'.

*refer to B.Sc. Program Requirements: Regulation 3, 1000 Level Credits

Total Course Requirements for all Students in the General Science Program
Total of 15.00 credits (usually 30 courses) as follows:
1. The Science core - a minimum of 1.50 credits (usually 3 courses) beyond the 4U or OAC level, in each of biological science, chemistry, mathematical science, physics (Refer to “Regulation 3, 1000 Level Credits”) - minimum of 6.00 (usually 12 courses)
2. Additional acceptable science credits* - selected from biological science, chemistry, computing and information science, mathematics, statistics, physics, geology or other science courses - 6.00 credits (usually 12 courses)
3. Arts and social science credits - 2.00 credits (usually 4 courses)
4. Additional acceptable credits (these may include one of BIOL*1020, CHEM*1060, PHYS*1020) - 1.00 credit (usually 2 courses)

Honours Program Minors
Minors are available in the following science areas with the particular credit requirements being given (additional minors are available from the College of Arts and the College of Social and Applied Human Sciences). A minor may include additional prerequisites - consult with the appropriate faculty advisor.

Biological Sciences:
5.00 credits - Animal Biology
5.00 credits - Biochemistry
5.00 credits - Biotechnology
5.00 credits - Functional Foods and Nutraceuticals
5.00 credits - Genetics
5.00 credits - Microbiology
5.00 credits - Neuroscience
5.00 credits - Nutritional Sciences
5.00 credits - Plant Biology
5.00 credits - Zoology

Environmental Sciences:
5.00 credits - Ecology
5.00 credits - Forest Science
5.00 credits - Geographic Info. Sys. (G.I.S.) and Environmental Analysis
5.00 credits - Geology

Mathematical Sciences:
5.25 credits - Computing & Information Science
5.00 credits - Mathematics
5.00 credits - Statistics

Additional Disciplines:
5.00 credits - Business Administration
5.00 credits - Economics
5.00 credits - Psychology

Continuation of Study
Students are advised to consult the regulations for continuation of study within the program which are outlined in detail in Section VII - Undergraduate Degree Regulations & Procedures.

Conditions for Graduation
Schedules 1 and 2
In order to qualify for graduation from the honours program, the student must fulfill all program requirements and have achieved 60%, or higher, cumulative average in all course attempts.
Note: A student registered in an honours program who has successfully completed all required courses and the specified total number of credits for the program but does not have a cumulative average of 60%, or higher, may apply to graduate from the general program.

Co-operative Education Program

Admission to the Co-operative Education program may be granted on entry to the University or by application normally before the conclusion of Semester 2. Application forms can be obtained from the appropriate faculty co-op advisor. In-course students will need to complete successfully an interview in the appropriate department. Students must be either a Canadian Citizen or Permanent Resident. A cumulative average of 70% is required in courses taken in Semesters 1 and 2 to permit continuation in the program.

Conditions for Graduation from the B.Sc. Co-operative Education Program

Conditions for graduation are the same as the corresponding regular B.Sc. program. In addition, all work reports and work performance evaluations must have a grade of satisfactory or better.

Animal Biology (ABIO)

Department of Animal and Poultry Science, Ontario Agricultural College.

Major (Honours Program)

Students may enter this major in Semester 1 or any semester thereafter. A student wishing to declare the major must consult the Faculty Advisor.

Semester 1

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credit</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL*1030</td>
<td>0.50</td>
<td>Biology I</td>
</tr>
<tr>
<td>CHEM*1040</td>
<td>0.50</td>
<td>General Chemistry I</td>
</tr>
<tr>
<td>MATH*1080</td>
<td>0.50</td>
<td>Elements of Calculus I</td>
</tr>
<tr>
<td>PHYS*1070</td>
<td>0.50</td>
<td>Introductory Physics for Life Sciences</td>
</tr>
</tbody>
</table>

0.50 elective or restricted elective

Students who are admitted deficient in one OAC/4U course in Biology, Chemistry or Physics must take the equivalent introductory course in first semester. The first-year science core in that subject should be completed by Semester 3.

Semester 2

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credit</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL*1040</td>
<td>0.50</td>
<td>Biology II</td>
</tr>
<tr>
<td>CHEM*1050</td>
<td>0.50</td>
<td>General Chemistry II</td>
</tr>
<tr>
<td>PHYS*1080</td>
<td>0.50</td>
<td>Physics for Life Sciences</td>
</tr>
</tbody>
</table>

0.50 elective or restricted elective

One of:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credit</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS*1000</td>
<td>0.50</td>
<td>Introduction to Computer Applications</td>
</tr>
<tr>
<td>CIS*1200</td>
<td>0.50</td>
<td>Introduction to Computing</td>
</tr>
<tr>
<td>CIS*1500</td>
<td>0.50</td>
<td>Introduction to Programming</td>
</tr>
</tbody>
</table>

Semester 3

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credit</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL*2210</td>
<td>0.50</td>
<td>Introductory Cell Biology</td>
</tr>
<tr>
<td>BIOC*2580</td>
<td>0.50</td>
<td>Introductory Biochemistry</td>
</tr>
<tr>
<td>MBG*2000</td>
<td>0.50</td>
<td>Introductory Genetics</td>
</tr>
<tr>
<td>STAT*2040</td>
<td>0.50</td>
<td>Statistics I</td>
</tr>
</tbody>
</table>

0.50 elective or restricted elective

Semester 4

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credit</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANSC*2340</td>
<td>0.50</td>
<td>Structure of Farm Animals</td>
</tr>
<tr>
<td>MBG*2020</td>
<td>0.50</td>
<td>Introductory Molecular Biology</td>
</tr>
<tr>
<td>NUTR*3190</td>
<td>0.50</td>
<td>Fundamentals of Nutrition</td>
</tr>
</tbody>
</table>

1.00 elective or restricted elective

Note: A 3000 level Chemistry is recommended for students considering MCAT examinations.

Semester 5

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credit</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGR*2350</td>
<td>0.50</td>
<td>Animal Production Systems and Industry</td>
</tr>
<tr>
<td>ANSC*3080</td>
<td>0.50</td>
<td>Agricultural Animal Physiology</td>
</tr>
<tr>
<td>ANSC*3120</td>
<td>0.50</td>
<td>Introduction to Animal Nutrition</td>
</tr>
</tbody>
</table>

1.00 electives or restricted electives

Semester 6

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credit</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANSC*3150</td>
<td>0.50</td>
<td>Principles of Farm Animal Care and Welfare</td>
</tr>
<tr>
<td>ANSC*4120</td>
<td>0.50</td>
<td>Fundamentals of Animal Reproduction</td>
</tr>
<tr>
<td>MBG*3060</td>
<td>0.50</td>
<td>Quantitative Genetics</td>
</tr>
</tbody>
</table>

1.00 credit from electives or restricted electives

Semester 7

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credit</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANSC*4050</td>
<td>0.50</td>
<td>Recombinant DNA in Animal Science</td>
</tr>
</tbody>
</table>

2.00 electives or restricted electives

Note: AGR*2360 is highly recommended as an elective course in semester 7

Semester 8

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credit</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANSC*4470</td>
<td>0.50</td>
<td>Animal Metabolism</td>
</tr>
<tr>
<td>ANSC*4480</td>
<td>0.50</td>
<td>Applied Endocrinology</td>
</tr>
</tbody>
</table>

1.50 electives or restricted electives

Restricted Electives

Students must complete 2.00 credits from Arts or Social Science courses.

At least 3.00 credits must be obtained from the following list of courses. Students are encouraged to consult with the Faculty Advisor both for help in tailoring their selection to meet personal and career interests and to avoid problems due to differences in the credit weightings and frequency with which specific courses are offered.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credit</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGR*2360</td>
<td>0.75</td>
<td>Challenges and Opportunities in Animal Production</td>
</tr>
<tr>
<td>ANSC*2200</td>
<td>0.50</td>
<td>Principles of Aquaculture</td>
</tr>
<tr>
<td>ANSC*4070</td>
<td>0.50</td>
<td>Applied Animal Behaviour</td>
</tr>
<tr>
<td>ANSC*4080</td>
<td>0.50</td>
<td>Environmental Management and Animal Productivity</td>
</tr>
<tr>
<td>ANSC*4130</td>
<td>0.50</td>
<td>Reproductive Management and Technology</td>
</tr>
<tr>
<td>ANSC*4160</td>
<td>0.25</td>
<td>Beef Cattle Nutrition</td>
</tr>
<tr>
<td>ANSC*4170</td>
<td>0.25</td>
<td>Dairy Cattle Nutrition</td>
</tr>
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<td>ANSC*4180</td>
<td>0.25</td>
<td>Poultry Nutrition</td>
</tr>
<tr>
<td>ANSC*4190</td>
<td>0.25</td>
<td>Swine Nutrition</td>
</tr>
<tr>
<td>ANSC*4500</td>
<td>0.25</td>
<td>Horse Nutrition</td>
</tr>
<tr>
<td>ANSC*4510</td>
<td>0.25</td>
<td>Pet Nutrition</td>
</tr>
<tr>
<td>ANSC*4610</td>
<td>0.50</td>
<td>Critical Analysis in Animal Science</td>
</tr>
<tr>
<td>BIOC*3560</td>
<td>0.50</td>
<td>Structure and Function in Biochemistry</td>
</tr>
<tr>
<td>MBG*3090</td>
<td>0.50</td>
<td>Applied Animal Breeding</td>
</tr>
<tr>
<td>MBG*4030</td>
<td>0.50</td>
<td>Animal Breeding Methods</td>
</tr>
<tr>
<td>NUTR*3340</td>
<td>0.50</td>
<td>Nutrition of Fish and Crustacea</td>
</tr>
<tr>
<td>NUTR*3350</td>
<td>0.50</td>
<td>Wildlife Nutrition</td>
</tr>
</tbody>
</table>

Note: At least 16.00 science credits must be completed. A list of acceptable science credits is available from the Faculty Advisor.

Applied Mathematics and Statistics (Co-op) (APMS:C)

Department of Mathematics and Statistics, College of Physical and Engineering Science.

Major (Honours Program)

Students may enter this major in Semester 1 or any semester thereafter. A student wishing to declare the major must consult the Faculty Advisor. A total of 20.00 credits is required to complete this program which includes 4.50 credits in Mathematics, 2.50 credits in Statistics, 2.50 credits in Mathematics or Statistics at the 3000 level, and an additional 2.00 credits in Mathematics or Statistics at the 4000 level, 1.00 credit in Computing and Information Science, and 1.00 credit in Arts or Social Sciences courses.

Semester 1 - Fall

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credit</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL*1030</td>
<td>0.50</td>
<td>Biology I</td>
</tr>
<tr>
<td>CHEM*1040</td>
<td>0.50</td>
<td>General Chemistry I</td>
</tr>
<tr>
<td>CIS*1500</td>
<td>0.50</td>
<td>Introduction to Programming</td>
</tr>
<tr>
<td>MATH*1210</td>
<td>0.50</td>
<td>Calculus I</td>
</tr>
<tr>
<td>MBG*1000</td>
<td>0.50</td>
<td>An Introduction to Mechanics</td>
</tr>
</tbody>
</table>

Students who are admitted deficient in one OAC/4U course in Biology, Chemistry or Physics must take the equivalent introductory course in first semester. The first-year science core in that subject should be completed by Semester 3.

Semester 2 - Winter

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credit</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL*1040</td>
<td>0.50</td>
<td>Biology II</td>
</tr>
<tr>
<td>CHEM*1050</td>
<td>0.50</td>
<td>General Chemistry II</td>
</tr>
<tr>
<td>CIS*2500</td>
<td>0.50</td>
<td>Intermediate Programming</td>
</tr>
<tr>
<td>MATH*1210</td>
<td>0.50</td>
<td>Calculus I</td>
</tr>
<tr>
<td>MBG*1000</td>
<td>0.50</td>
<td>An Introduction to Mechanics</td>
</tr>
<tr>
<td>PHYS*1010</td>
<td>0.50</td>
<td>Introductory Electricity and Magnetism</td>
</tr>
</tbody>
</table>

Summer Semester

No study semester or work term.

Semester 3 - Fall

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credit</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH*2000</td>
<td>0.50</td>
<td>Set Theory</td>
</tr>
<tr>
<td>MATH*2160</td>
<td>0.50</td>
<td>Linear Algebra I</td>
</tr>
<tr>
<td>MATH*2200</td>
<td>0.50</td>
<td>Advanced Calculus I</td>
</tr>
<tr>
<td>STAT*2040</td>
<td>0.50</td>
<td>Statistics I</td>
</tr>
</tbody>
</table>

0.50 Arts or Social Science elective

Winter Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credit</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>COOP*1000</td>
<td>0.00</td>
<td>Co-op Work Term I</td>
</tr>
</tbody>
</table>

Note: Suggested course sequences are available in the departmental brochure. Please consult with the departmental advisor.

Semester 4 - Summer

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credit</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH*2130</td>
<td>0.50</td>
<td>Numerical Methods</td>
</tr>
<tr>
<td>MATH*2170</td>
<td>0.50</td>
<td>Differential Equations I</td>
</tr>
<tr>
<td>STAT*2050</td>
<td>0.50</td>
<td>Statistics II</td>
</tr>
</tbody>
</table>

0.50 Arts or Social Science elective

0.50 elective

Fall Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credit</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>COOP*2000</td>
<td>0.00</td>
<td>Co-op Work Term II</td>
</tr>
</tbody>
</table>

Semester 5 - Winter

1.00 credit in Mathematics or Statistics at the 3000 level or above

1.50 elective
## Summer Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>COOP*3000</td>
<td>0.00</td>
<td>Co-op Work Term III</td>
</tr>
</tbody>
</table>

## Semester 6 - Fall

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>STAT*3100</td>
<td>0.50</td>
<td>Introductory Statistical Methods I</td>
</tr>
<tr>
<td>STAT*3240</td>
<td>0.50</td>
<td>Applied Regression Analysis</td>
</tr>
</tbody>
</table>

0.50 elective

At least 1.00 credit from:

- MATH*3100 [0.50] Differential Equations II
- MATH*3200 [0.50] Real Analysis
- MATH*3240 [0.50] Operations Research

## Semester 7 - Winter

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>STAT*3110</td>
<td>0.50</td>
<td>Introductory Statistical Methods II</td>
</tr>
</tbody>
</table>

1.50 credits in Mathematics or Statistics at the 3000 level or above

0.50 elective

## Summer Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>COOP*4000</td>
<td>0.00</td>
<td>Co-op Work Term IV</td>
</tr>
</tbody>
</table>

## Semester 8 - Fall

2.00 credits in Mathematics or Statistics at the 4000 level

0.50 elective

### Electives must include:

- 1.00 credit in Arts and Social Science courses
- 2.50 credits in Mathematics or Statistics at the 3000 level
- 2.00 credits in Mathematics or Statistics at the 4000 level

### Biochemistry (BIOC)

#### Department of Molecular and Cellular Biology, College of Biological Science.

#### Major (Honours Program)

Students may enter this major in Semester 1 or any semester thereafter. A student wishing to declare the major must consult the Faculty Advisor. The major will require the completion of at least 20.25 credits as indicated below:

### Semester 1

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL*1030</td>
<td>0.50</td>
<td>Biology I</td>
</tr>
<tr>
<td>CHEM*1040</td>
<td>0.50</td>
<td>General Chemistry I</td>
</tr>
<tr>
<td>MATH*1200</td>
<td>0.50</td>
<td>Calculus I</td>
</tr>
<tr>
<td>PHYS*1000</td>
<td>0.50</td>
<td>An Introduction to Mechanics</td>
</tr>
</tbody>
</table>

0.50 Arts or Social Science elective

Students who are admitted deficient in one OAC/4U course in Biology, Chemistry or Physics must take the equivalent introductory course in first semester. The first-year science core in that subject should be completed by Semester 3.

### Semester 2

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL*1040</td>
<td>0.50</td>
<td>Biology II</td>
</tr>
<tr>
<td>CHEM*1050</td>
<td>0.50</td>
<td>General Chemistry II</td>
</tr>
<tr>
<td>CIS*1500</td>
<td>0.50</td>
<td>Introduction to Programming</td>
</tr>
<tr>
<td>MATH*1210</td>
<td>0.50</td>
<td>Calculus II</td>
</tr>
<tr>
<td>PHYS*1010</td>
<td>0.50</td>
<td>Introductory Electricity and Magnetism</td>
</tr>
</tbody>
</table>

### Semester 3

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM*2060</td>
<td>0.50</td>
<td>Structure and Bonding</td>
</tr>
<tr>
<td>CHEM*2480</td>
<td>0.50</td>
<td>Analytical Chemistry I</td>
</tr>
<tr>
<td>BIOL*2480</td>
<td>0.50</td>
<td>Introductory Biochemistry</td>
</tr>
<tr>
<td>CHEM*2880</td>
<td>0.50</td>
<td>Physical Chemistry</td>
</tr>
<tr>
<td>MBG*2000</td>
<td>0.50</td>
<td>Introductory Genetics</td>
</tr>
</tbody>
</table>

### Semester 4

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL*2210</td>
<td>0.50</td>
<td>Introductory Cell Biology</td>
</tr>
<tr>
<td>CHEM*2700</td>
<td>0.50</td>
<td>Organic Chemistry I</td>
</tr>
<tr>
<td>BIOL*3560</td>
<td>0.50</td>
<td>Structure and Function in Biochemistry</td>
</tr>
<tr>
<td>MBG*2020</td>
<td>0.50</td>
<td>Introductory Molecular Biology</td>
</tr>
</tbody>
</table>

0.50 elective

### Semester 5

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL*3570</td>
<td>0.50</td>
<td>Analytical Biochemistry</td>
</tr>
<tr>
<td>CHEM*3750</td>
<td>0.50</td>
<td>Organic Chemistry II</td>
</tr>
<tr>
<td>MICR*2030</td>
<td>0.50</td>
<td>Microbial Growth</td>
</tr>
<tr>
<td>STAT*2040</td>
<td>0.50</td>
<td>Statistics I</td>
</tr>
</tbody>
</table>

0.50 elective

### Semester 6

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>MBG*3350</td>
<td>0.75</td>
<td>Laboratory Methods in Molecular Biology I</td>
</tr>
<tr>
<td>PHYS*2030</td>
<td>0.50</td>
<td>Biophysics of Excitable Cells</td>
</tr>
</tbody>
</table>

1.50 elective

### Semester 7

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL*4520</td>
<td>0.50</td>
<td>Metabolic Processes</td>
</tr>
<tr>
<td>MICR*3230</td>
<td>0.50</td>
<td>Immunology I</td>
</tr>
</tbody>
</table>

1.00 electives

One of:

- MBG*3070 [0.50] Bacterial Genetics

### Minor (Honours Program)

A minor in Biochemistry consists of at least 5.00 course credits. The following courses are required:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL*2580</td>
<td>0.50</td>
<td>Introductory Biochemistry</td>
</tr>
<tr>
<td>CHEM*2700</td>
<td>0.50</td>
<td>Organic Chemistry I</td>
</tr>
<tr>
<td>BIOL*3560</td>
<td>0.50</td>
<td>Structure and Function in Biochemistry</td>
</tr>
<tr>
<td>BIOL*3570</td>
<td>0.50</td>
<td>Analytical Biochemistry</td>
</tr>
<tr>
<td>BIOL*4540</td>
<td>0.50</td>
<td>Enzymology</td>
</tr>
<tr>
<td>MBG*2020</td>
<td>0.50</td>
<td>Introductory Molecular Biology</td>
</tr>
<tr>
<td>MICR*2030</td>
<td>0.50</td>
<td>Microbial Growth</td>
</tr>
</tbody>
</table>

In addition, at least 2.00 credits must be chosen from the following courses, with at least 1.00 credits from the first four courses listed:

- BIOL*4520 [0.50] Metabolic Processes
- BIOL*4570 [0.50] Applied Biochemistry
- BIOL*4580 [0.50] Membrane Biochemistry
- MBG*3350 [0.75] Laboratory Methods in Molecular Biology I
- MICR*3230 [0.50] Immunology I
- MICR*4260 [0.50] Microbial Technology
- TOX*4590 [0.50] Biochemical Toxicology

### Biochemistry (Co-op) (BIOC:C)

#### Department of Molecular and Cellular Biology, College of Biological Science.

Two Streams are available. Stream A is different from Stream B in that Stream A has a double work term following academic semester 3. The course content of semesters 1-4 is the same as that listed above for the regular Honours Program Major. Students in the Co-op program must also take COOP*1100 in the second academic semester. The total program requirements, including the selection of electives are also the same.

Students will be expected to undertake their work terms after semester 3 and completion of course CHEM*2480. Since certain courses must be taken in a different semester from usual, consult your Faculty Co-op Advisor for assistance with course selection.

To graduate from the Co-op program a minimum of 4 successfully completed work terms is normally required.

#### Stream A

##### Semester 1 - Fall

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL*1030</td>
<td>0.50</td>
<td>Biology I</td>
</tr>
<tr>
<td>CHEM*1040</td>
<td>0.50</td>
<td>General Chemistry I</td>
</tr>
<tr>
<td>MATH*1200</td>
<td>0.50</td>
<td>Calculus I</td>
</tr>
<tr>
<td>PHYS*1000</td>
<td>0.50</td>
<td>An Introduction to Mechanics</td>
</tr>
</tbody>
</table>

0.50 Arts or Social Science elective

##### Semester 2 - Winter

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL*1040</td>
<td>0.50</td>
<td>Biology II</td>
</tr>
<tr>
<td>CHEM*1050</td>
<td>0.50</td>
<td>General Chemistry II</td>
</tr>
<tr>
<td>CIS*1500</td>
<td>0.50</td>
<td>Introduction to Programming</td>
</tr>
<tr>
<td>MATH*1210</td>
<td>0.50</td>
<td>Calculus II</td>
</tr>
<tr>
<td>PHYS*1010</td>
<td>0.50</td>
<td>Introductory Electricity and Magnetism</td>
</tr>
</tbody>
</table>

##### Semester 3 - Fall

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL*3570</td>
<td>0.50</td>
<td>Analytical Biochemistry</td>
</tr>
<tr>
<td>CHEM*3750</td>
<td>0.50</td>
<td>Organic Chemistry II</td>
</tr>
<tr>
<td>MICR*2030</td>
<td>0.50</td>
<td>Microbial Growth</td>
</tr>
<tr>
<td>STAT*2040</td>
<td>0.50</td>
<td>Statistics I</td>
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</table>

0.50 elective

##### Semester 4 - Winter

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>MBG*3350</td>
<td>0.75</td>
<td>Laboratory Methods in Molecular Biology I</td>
</tr>
<tr>
<td>PHYS*2030</td>
<td>0.50</td>
<td>Biophysics of Excitable Cells</td>
</tr>
</tbody>
</table>

1.50 elective

##### Semester 5

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL*4520</td>
<td>0.50</td>
<td>Metabolic Processes</td>
</tr>
<tr>
<td>MICR*3230</td>
<td>0.50</td>
<td>Immunology I</td>
</tr>
</tbody>
</table>

1.00 electives

One of:

- MBG*3070 [0.50] Bacterial Genetics
<table>
<thead>
<tr>
<th>Semester 6 - Fall</th>
<th>Semester 7 - Winter</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOC*4540 [0.50] Enzymology</td>
<td>BIOC*4540 [0.50] Membrane Biochemistry</td>
</tr>
<tr>
<td>BIOC*4580 [0.50] Membrane Biochemistry</td>
<td>MBG*3350 [0.75] Laboratory Methods in Molecular Biology I</td>
</tr>
<tr>
<td>PHYS*2030 [0.50] Biophysics of Excitable Cells</td>
<td>1.00 electives</td>
</tr>
<tr>
<td>0.50 electives</td>
<td></td>
</tr>
</tbody>
</table>

**Summer Semester**

- COOP*4000 [0.00] Co-op Work Term IV
- BIOC*4520 [0.50] Metabolic Processes
  - 2.00 electives

**Biological Chemistry (BCHM)**

Department of Chemistry and Biochemistry, College of Physical and Engineering Science.

**Major (Honours Program)**

Students may enter this major in Semester 1 or any semester thereafter. A student wishing to declare the major must consult the Faculty Advisor. This major will require the completion of 20.00 credits as indicated below:

**Semester 1**

- BIOL*1030 [0.50] Biology I
- CHEM*1040 [0.50] General Chemistry I
- MATH*1200 [0.50] Calculus I
- PHYS*1000 [0.50] An Introduction to Mechanics
  - 0.50 Arts or Social Science elective

**Semester 2**

- BIOL*1040 [0.50] Biology II
- CHEM*1050 [0.50] General Chemistry II
- MATH*1200 [0.50] Calculus II
- PHYS*1010 [0.50] Introductory Electricity and Magnetism
  - 0.50 Arts or Social Science elective

**Semester 3**

- CHEM*2060 [0.50] Structure and Bonding
- CHEM*2400 [0.50] Analytical Chemistry I
- BIOC*2580 [0.50] Introductory Biochemistry
- MBG*2000 [0.50] Introductory Genetics
  - 0.50 elective or restricted elective *

**Semester 4**

- CHEM*2070 [0.50] Structure and Spectroscopy
- CHEM*2700 [0.50] Organic Chemistry I
- CHEM*3430 [0.50] Analytical Chemistry II: Instrumental Analysis
- MBG*2020 [0.50] Introductory Molecular Biology
  - 0.50 elective or restricted elective *

**Semester 5**

- CHEM*2880 [0.50] Physical Chemistry
- BIOC*3570 [0.50] Analytical Biochemistry
- CHEM*3640 [0.50] Chemistry of the Elements I
- CHEM*3750 [0.50] Organic Chemistry II
  - 0.50 elective or restricted elective *

**Semester 6**

- BIOC*3560 [0.50] Structure and Function in Biochemistry
- CHEM*3650 [0.50] Chemistry of the Elements II
- CHEM*3760 [0.50] Organic Chemistry III
  - 0.50 elective or restricted elective *

**Semester 7**

- CHEM*4730 [0.50] Synthetic Organic Chemistry
- CHEM*4720 [0.50] Organic Reactivity

**Semester 8**

- CHEM*4730 [0.50] Synthetic Organic Chemistry
- 1.00 Chemistry, Biochemistry or Molecular Biology and Genetics courses at the 3000 or 4000 level ***
  - 0.75 elective or restricted elective *
Students who are admitted deficient in one OAC/4U course in Biology, Chemistry or:

- CHEM*1040 [0.50] General Chemistry I
- BIOL*1030 [0.50] Biology I

**Semester 1**

- Recommended Schedule of Studies

- The program must include a total of 6.00 science credits at the 3000 or 4000 level, 2.00 credits required.
- **Major (Honours Program)**

  Students may enter this major in Semester 1 or any semester thereafter. A student wishing to declare the major must consult the Faculty Advisor. This major will require the completion of 20.00 credits as indicated below:

  1. First Year Core - 4.00 credits
     - 1.00 - Biology BIOL*1030 BIOL*1040
     - 1.00 - Chemistry CHEM*1040 CHEM*1050
     - 1.00 - Physics (PHYS*1070, PHYS*1080) or (PHYS*1000, PHYS*1010)
     - 0.50 - Mathematics MATH*1080 or MATH*1200
     - 0.50 - Mathematical Science CIS*1000, CIS*1200, MATH*1210, MATH*2080,
     - 2. Subject Area Core - 8.00 credits
     - 0.50 - BIOL*2210
     - 0.50 - BIOL*2580
     - 0.50 - MBG*2000
     - 0.50 - MBG*3000
     - 0.50 - STAT*2040
     - 0.50 - from one of BIOL*2060, BIOL*3110, BOT*2050
     - 0.50 - from one of BIOM*3100, BOT*3310, HK*3940, ZOO*3200
     - 5.00 - biological science courses of which 4.00 must be at the 3000 or 4000 level*

  2. Science Electives - 4.00 credits
     - 1.00 - biology courses science
     - 3.00 - from science offerings on the list of Approved Courses of which at least 2.00 must be at the 3000 or 4000 level*

  4. Arts and Social Science Electives - 2.00 credits

  5. Free Electives - 2.00 credits

  *The program must include at least 6.00 science credits at the 3000 or 4000 level, 2.00 must be at the 4000 level

**Recommended Schedule of Studies**

**Semester 2**

- BIOL*1040 [0.50] Biology II
- CHEM*1050 [0.50] General Chemistry II
- 0.50 Mathematical science from:
  - CIS*1000 [0.50] Introduction to Computer Applications
  - CIS*1200 [0.50] Introduction to Computing
  - MATH*1210 [0.50] Calculus II
  - MATH*2080 [0.50] Elements of Calculus II
- 0.50 Arts or Social Science elective
- One of:
  - PHYS*1010 [0.50] Introductory Electricity and Magnetism
  - PHYS*1080 [0.50] Physics for Life Sciences

**Semester 3**

- MBG*2000 [0.50] Introductory Genetics
- 0.50 Ecology from:
  - BIOL*2060
  - BIOL*3110
  - BOT*2050
- 1.00 electives
- One of:
  - BIOL*2210 [0.50] Introductory Cell Biology
  - BIOL*2580 [0.50] Introductory Biochemistry

**Semester 4**

- STAT*2040 [0.50] Statistics I
- 1.50 electives
- One of:
  - BIOL*2210 [0.50] Introductory Cell Biology
  - BIOL*2580 [0.50] Introductory Biochemistry

**Semester 5**

- 2.00 electives (1.25 electives if HK*3940 is selected)
- One course in Physiology:
  - BIOM*3100 [0.50] Mammalian Physiology I
  - BOT*3310 [0.50] Plant Physiology
  - HK*3940 [1.25] Human Physiology
  - ZOO*3200 [0.50] Comparative Animal Physiology I

**Semester 6 to 8**

- 2.50 in each semester including 2.00 science credits per semester
- Note: 6.00 in biological science must be taken in Semesters 6 through 8 of which 4.00 must be at the 3000 or 4000 level. In the total 6.00 of 3000 and 4000 level science courses, 2.00 must be at the 4000 level.

**Biology (BIOL)**

**College of Biological Science.**

**Minor (Honours Program)**

A minor in Biology shall include the following courses:

- BIOL*1030 [0.50] Biology I
- BIOL*1040 [0.50] Biology II
- BIOL*2060 [0.50] Ecology
- BIOL*2210 [0.50] Introductory Cell Biology
- MBG*2000 [0.50] Introductory Genetics

and 2.50 of which 1.50 must be at the 3000 or 4000 level, from courses offered by the Human Health and Nutritional Sciences, Integrative Biology and Molecular and Cellular Biology. This minor is intended for students registered in majors in B.Sc. Physical Sciences and the B.A. degree programs.

**Bio-Medical Science (BIOM)**

**Department of Biomedical Sciences and Department of Human Health and Nutritional Sciences**

This joint program of the Department of Human Health and Nutritional Sciences and the Department of Biomedical Sciences focuses on the maintenance and promotion of human and animal health through the study of function (biochemistry and physiology), structure (anatomy and histology), and the basic medical sciences (epidemiology and pharmacology). It will permit graduates from this B.S. program to contribute to society in the area of health maintenance. The program is a good preparation for students intending to develop professional or research careers in the medical and biological sciences. Through the use of electives, students may structure a program emphasizing either nutritional sciences or principles of health and disease prevention. For more information on recommended electives contact the Faculty Advisor of the major.

You may declare the Bio-Medical Science major at entrance from high school or during your first year. Acceptance into this major is confirmed at one entry point per year at the end of the Winter semester. To continue from first year, you must obtain a 70% average in 5.00 credits, including the seven core courses as prescribed by the Schedule of Studies (see below).

Students who are in the process of completing a minimum of 9.00 or 14.00 credits may also apply to the major during the winter semester. Admission is competitive based on academic performance and available spaces. To be considered, students must obtain a minimum 70% average in each of the previous two full-time semesters (or equivalent)
and the signature of the Faculty Advisor. Meeting these minimum requirements does not guarantee admission to the major. Decisions are made at the end of the Winter semester. Students who are lacking in the fundamentals of word processing, spread sheet use and data management should arrange to complete CIS*1000 as early in their program as possible.

This program is designed to partially meet the current requirements for an entry into medical schools in Ontario (a student interested in meeting these requirements should check the present admission requirements for the medical schools); as well as entry into the DVM program of the Ontario Veterinary College.

Live animals and/or animal tissues are used for teaching purposes in some courses in the Bio-Medical Science Major. This must be accepted by students admitted to the program. All animals are protected under the Animals for Research Act of Ontario (1980), the Guidelines for the Care and Use of Experimental Animals (Canadian Council on Animal Care), and the Animal Care Policies of the University of Guelph.

**Major (Honours Program)**

A minimum of 20.00 credits is required.

Note: Students are required to complete 16.00 credits in science of which a minimum of 2.00 credits must be at the 4000 level.

### Semester 1

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL*1030</td>
<td>Biology I</td>
<td>0.50</td>
</tr>
<tr>
<td>CHEM*1040</td>
<td>General Chemistry I</td>
<td>0.50</td>
</tr>
<tr>
<td>MATH*1080</td>
<td>Elements of Calculus I</td>
<td>0.50</td>
</tr>
<tr>
<td>PHYS*1070</td>
<td>Introductory Physics for Life Sciences</td>
<td>0.50</td>
</tr>
</tbody>
</table>

0.50 elective or restricted elective

Students who are admitted deficient in one OAC/4U course in Biology, Chemistry or Physics must take the equivalent introductory course in first semester. The first-year science core in that subject should be completed by Semester 3.

### Semester 2

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL*1040</td>
<td>Biology II</td>
<td>0.50</td>
</tr>
<tr>
<td>CHEM*1050</td>
<td>General Chemistry II</td>
<td>0.50</td>
</tr>
<tr>
<td>PHYS*1080</td>
<td>Physics for Life Sciences</td>
<td>0.50</td>
</tr>
</tbody>
</table>

1.00 electives or restricted electives

### Semester 3 (see admission statement above)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL*2210</td>
<td>Introductory Cell Biology</td>
<td>0.50</td>
</tr>
<tr>
<td>BIOC*2580</td>
<td>Introductory Biochemistry</td>
<td>0.50</td>
</tr>
<tr>
<td>MBG*2000</td>
<td>Introductory Genetics</td>
<td>0.50</td>
</tr>
<tr>
<td>STAT*2040</td>
<td>Statistics I</td>
<td>0.50</td>
</tr>
</tbody>
</table>

0.50 electives or restricted electives

### Semester 4

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOC*3560</td>
<td>Structure and Function in Biochemistry</td>
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</tr>
<tr>
<td>MBG*2020</td>
<td>Introductory Molecular Biology</td>
<td>0.50</td>
</tr>
<tr>
<td>NUTR*3210</td>
<td>Fundamentals of Nutrition</td>
<td>0.50</td>
</tr>
</tbody>
</table>

1.00 electives or restricted electives

### Semester 5

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>POPM*3240</td>
<td>Epidemiology</td>
<td>0.50</td>
</tr>
</tbody>
</table>

Electives or restricted electives (to a maximum of 2.75 total credits). One of:

- BIOM*3100  [0.50] Mammalian Physiology I
- HK*3940  [1.25] Human Physiology

If BIOM*3100 is selected, then BIOM*3110 and BIOM*3120 must be taken in Semester 6.

### Semester 6

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOM*3040</td>
<td>Medical Embryology</td>
<td>0.50</td>
</tr>
<tr>
<td>BIOM*3090</td>
<td>Principles of Pharmacology and Toxicology</td>
<td>0.50</td>
</tr>
</tbody>
</table>

Electives or restricted electives to a maximum of 2.75 total credits.

Note: As part of the electives or restricted electives students must select BIOM*3110 and BIOM*3120 in Semester 6 if BIOM*3100 was selected in Semester 5.

### Semester 7

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MICR*3230</td>
<td>Immunology I</td>
<td>0.50</td>
</tr>
<tr>
<td>NUTR*4200</td>
<td>Nutrition and Immune Function</td>
<td>0.50</td>
</tr>
</tbody>
</table>

One of:

- BIOM*3030  [0.75] Biomedical Histology
- ZOO*3000  [0.50] Comparative Histology

### Semester 8

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PATH*3610</td>
<td>Principles of Disease</td>
<td>0.50</td>
</tr>
</tbody>
</table>

2.00 electives or restricted electives*

### Restricted Electives

1. An anatomy course from BIOM*3010, HK*3401/2, ZOO*2090 must be completed.
2. A minimum of 1.00 and to a maximum of 2.00 in research experience may be met either by:
   i. completing both HK*4410 and HK*4420
   ii. completing HK*4410 and either HK*4230 or BIOM*4500
   iii. completing both HK*4230 and BIOM*4500
   iv. completing one of the 1.00 credits in research courses in either the Department of Human Health and Nutritional Sciences (HK*4360 or HK*4371/2) or in the Department of Biomedical Sciences (BIOM*4510 or BIOM*4521/2)
   v. equivalent course from another department with the permission of the Faculty Advisor

A total of 2.00 credits in Arts and Social Science courses including:

- 0.50 credit in philosophy and ethics from PHIL*2030, PHIL*2070, PHIL*2100, PHIL*2120, PHIL*2190
- 0.50 credit in either psychology (PSYC*XXXX) or sociology (SOC*XXXX)

### Biomedical Toxicology (BTOX)

**Interdisciplinary Program, Department of Biomedical Sciences, Ontario Veterinary College.**

**Major (Honours Program)**

Students may enter this major in Semester 1 or any semester thereafter. A student wishing to declare the major must consult the Faculty Advisor.

### Semester 1

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL*1030</td>
<td>Biology I</td>
<td>0.50</td>
</tr>
<tr>
<td>CHEM*1040</td>
<td>General Chemistry I</td>
<td>0.50</td>
</tr>
<tr>
<td>MATH*1080</td>
<td>Elements of Calculus I</td>
<td>0.50</td>
</tr>
<tr>
<td>PHYS*1070</td>
<td>Introductory Physics for Life Sciences</td>
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</tbody>
</table>

0.50 elective*

### Semester 2

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL*1040</td>
<td>Biology II</td>
<td>0.50</td>
</tr>
<tr>
<td>CHEM*1050</td>
<td>General Chemistry II</td>
<td>0.50</td>
</tr>
<tr>
<td>PHYS*1080</td>
<td>Physics for Life Sciences</td>
<td>0.50</td>
</tr>
</tbody>
</table>

0.50 elective*

### Semester 3

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL*2210</td>
<td>Introductory Cell Biology</td>
<td>0.50</td>
</tr>
<tr>
<td>BIOC*2580</td>
<td>Introductory Biochemistry</td>
<td>0.50</td>
</tr>
<tr>
<td>STAT*2040</td>
<td>Statistics I</td>
<td>0.50</td>
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</table>

0.50 elective*

### Semester 4

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL*3110</td>
<td>Mammalian Physiology I</td>
<td>0.50</td>
</tr>
<tr>
<td>HK*3940</td>
<td>Human Physiology</td>
<td>1.25</td>
</tr>
</tbody>
</table>

If BIOM*3100 is selected, then BIOM*3110 and BIOM*3120 must be taken in Semester 6.

### Semester 5

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>POPM*3240</td>
<td>Epidemiology</td>
<td>0.50</td>
</tr>
</tbody>
</table>

Electives or restricted electives (to a maximum of 2.75 total credits). One of:

- BIOM*3110  [0.50] Mammalian Physiology I
- HK*3940  [1.25] Human Physiology

If BIOM*3110 is selected, then BIOM*3110 and BIOM*3120 must be taken in Semester 6.

### Semester 6

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOM*3120</td>
<td>Medical Embryology</td>
<td>0.50</td>
</tr>
<tr>
<td>BIOM*3120</td>
<td>Principles of Pharmacology and Toxicology</td>
<td>0.50</td>
</tr>
</tbody>
</table>

Electives or restricted electives to a maximum of 2.75 total credits.

Note: As part of the electives or restricted electives students must select BIOM*3142 and BIOM*3120 in Semester 6 if BIOM*3100 was selected in Semester 5.

### Semester 7

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MICR*3230</td>
<td>Immunology I</td>
<td>0.50</td>
</tr>
<tr>
<td>NUTR*4200</td>
<td>Nutrition and Immune Function</td>
<td>0.50</td>
</tr>
</tbody>
</table>

One of:

- BIOM*3030  [0.75] Biomedical Histology
- ZOO*3000  [0.50] Comparative Histology

### Semester 8

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PATH*3610</td>
<td>Principles of Disease</td>
<td>0.50</td>
</tr>
</tbody>
</table>

2.00 electives or restricted electives*

### Restricted Electives

1. An anatomy course from BIOM*3010, HK*3401/2, ZOO*2090 must be completed.
2. A minimum of 1.00 and to a maximum of 2.00 in research experience may be met either by:
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   ii. completing HK*4410 and either HK*4230 or BIOM*4500
   iii. completing both HK*4230 and BIOM*4500
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A total of 2.00 credits in Arts and Social Science courses including:

- 0.50 credit in philosophy and ethics from PHIL*2030, PHIL*2070, PHIL*2100, PHIL*2120, PHIL*2190
- 0.50 credit in either psychology (PSYC*XXXX) or sociology (SOC*XXXX)

---

* A minimum of 1.50 must be taken in the College of Arts or the College of Social and Applied Human Sciences
## Biomedical Toxicology (Co-op) (BTOX:C)

**Interdisciplinary Program, Department of Biomedical Sciences, Ontario Veterinary College.**

### Major (Honours Program)

A 70% average in courses completed in semesters 1 and 2 is normally required for admission to semester 3 of this program. An optional fourth co-op work term is available.

#### Semester 1 - Fall

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL*1030</td>
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<tr>
<td>CHEM*1040</td>
<td>0.50</td>
</tr>
<tr>
<td>MATH*1080</td>
<td>0.50</td>
</tr>
<tr>
<td>PHYS*1070</td>
<td>0.50</td>
</tr>
</tbody>
</table>

0.50 elective*

Students who are admitted deficient in one OAC/4U course in Biology, Chemistry or Physics must take the equivalent introductory course in first semester. The first-year science core in that subject should be completed by Semester 3.

#### Semester 2 - Winter

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credit</th>
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</thead>
<tbody>
<tr>
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<tr>
<td>CHEM*1050</td>
<td>0.50</td>
</tr>
<tr>
<td>MBG*2000</td>
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</tr>
<tr>
<td>TOX*2000</td>
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</tr>
</tbody>
</table>

0.50 elective*

#### Semester 3 - Fall

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL*2580</td>
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</tr>
<tr>
<td>CHEM*2480</td>
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<td>MBG*2000</td>
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<tr>
<td>TOX*2000</td>
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</tbody>
</table>

0.50 elective

#### Winter

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>COOP*1000</td>
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Co-op Work Term I

#### Semester 4 - Summer

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credit</th>
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<tbody>
<tr>
<td>BIOL*2210</td>
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</tr>
<tr>
<td>CHEM*2700</td>
<td>0.50</td>
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<td>PATH*3610</td>
<td>0.50</td>
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<tr>
<td>STAT*2050</td>
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0.50 elective

#### Fall

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credit</th>
</tr>
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<tbody>
<tr>
<td>COOP*2000</td>
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</table>

Co-op Work Term II

#### Semester 5 - Winter

<table>
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<tr>
<th>Course Code</th>
<th>Credit</th>
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<tbody>
<tr>
<td>BIOL*3560</td>
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<tr>
<td>MBG*2020</td>
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<tr>
<td>NUTR*3210</td>
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<td>STAT*3510</td>
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0.50 elective

#### Summer

<table>
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<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>COOP*3000</td>
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Co-op Work Term III

#### Semester 6 - Fall

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credit</th>
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<tbody>
<tr>
<td>BIOM*3030</td>
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<tr>
<td>BIOM*3100</td>
<td>0.50</td>
</tr>
<tr>
<td>NUTR*4510</td>
<td>0.50</td>
</tr>
<tr>
<td>TOX*3300</td>
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0.50 elective

#### Semester 7 - Winter

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credit</th>
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</thead>
<tbody>
<tr>
<td>BIOM*3090</td>
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</tr>
<tr>
<td>BIOM*3110</td>
<td>0.50</td>
</tr>
<tr>
<td>BIOM*3120</td>
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<td>TOX*4110</td>
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<td>TOX*4220</td>
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0.50 elective

#### Semester 8 - Fall

<table>
<thead>
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<th>Course Code</th>
<th>Credit</th>
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<tbody>
<tr>
<td>BIOM*4090</td>
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<tr>
<td>MBG*3350</td>
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<td>TOX*4000</td>
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<tr>
<td>TOX*4590</td>
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</tr>
</tbody>
</table>

0.50 elective

### Biophysics (BIOP)

**Department of Physics, College of Physical and Engineering Science.**

### Major (Honours Program)

The program emphasizes the physics of biological systems. It provides an excellent background for careers in the expanding interdisciplinary research laboratories of Government and Industry. Completion of the program at an appropriate level will qualify a student to pursue post-graduate studies in biophysics and certain areas of physics.

Since some of the required courses are not offered every semester, students entering the Major in Biophysics should plan their program in consultation with the Department of Physics Departmental Advisor.

Students may enter this major in Semester 1 or any semester thereafter. A student wishing to declare the major must consult the Faculty Advisor. This major requires the completion of 21.25 credits as indicated below:

#### Semester 1

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL*1030</td>
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<tr>
<td>CHEM*1040</td>
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<tr>
<td>CIS*1500</td>
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</table>

One of (MATH*1200 recommended):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH*1080</td>
<td>0.50</td>
</tr>
<tr>
<td>MATH*1200</td>
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</tr>
</tbody>
</table>

One of (PHYS*1000 recommended):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS*1000</td>
<td>0.50</td>
</tr>
<tr>
<td>PHYS*1070</td>
<td>0.50</td>
</tr>
<tr>
<td>PHYS*1080</td>
<td>0.50</td>
</tr>
</tbody>
</table>

Students who are admitted deficient in one OAC/4U course in Biology, Chemistry or Physics must take the equivalent introductory course in first semester. The first-year science core in that subject should be completed by Semester 3.

#### Semester 2

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credit</th>
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</thead>
<tbody>
<tr>
<td>BIOL*1040</td>
<td>0.50</td>
</tr>
<tr>
<td>CHEM*1050</td>
<td>0.50</td>
</tr>
<tr>
<td>0.50 Arts or Social Science elective</td>
<td></td>
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</table>

1 physics course from the following list (PHYS*1010 recommended):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credit</th>
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<tbody>
<tr>
<td>PHYS*1010</td>
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</tbody>
</table>

One of (MATH*1210 recommended):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH*1210</td>
<td>0.50</td>
</tr>
<tr>
<td>MATH*2080</td>
<td>0.50</td>
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</tbody>
</table>

#### Semester 3

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH*2160</td>
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<tr>
<td>MATH*2200</td>
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</tr>
<tr>
<td>PHYS*2440</td>
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</tr>
<tr>
<td>PHYS*2460</td>
<td>0.75</td>
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</table>

One of:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL*2210</td>
<td>0.50</td>
</tr>
<tr>
<td>MBG*2000</td>
<td>0.50</td>
</tr>
</tbody>
</table>

#### Semester 4

<table>
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<tr>
<th>Course Code</th>
<th>Credit</th>
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</thead>
<tbody>
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<tr>
<td>PHYS*2030</td>
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<td>PHYS*2260</td>
<td>0.50</td>
</tr>
<tr>
<td>PHYS*2450</td>
<td>0.75</td>
</tr>
<tr>
<td>PHYS*2470</td>
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</tbody>
</table>

One of:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>COOP*2000</td>
<td>0.00</td>
</tr>
</tbody>
</table>

#### Semester 5

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH*3100</td>
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<tr>
<td>PHYS*3100</td>
<td>0.75</td>
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<tr>
<td>PHYS*3230</td>
<td>0.50</td>
</tr>
<tr>
<td>PHYS*3240</td>
<td>0.50</td>
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#### Semester 6

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOC*3560</td>
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<td>PHYS*4540</td>
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#### Semester 7

<table>
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<td>PHYS*4240</td>
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<td>PHYS*4560</td>
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One of:

<table>
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<tr>
<td>PHYS*4120</td>
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One of:

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<tr>
<td>PHYS*4500</td>
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Note: At least one of PHYS*4120 in semester 7 or PHYS*4150 in semester 8 must be taken.

#### Semester 8

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credit</th>
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<tbody>
<tr>
<td>BIOC*4580</td>
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Membrane Biochemistry

<table>
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<tr>
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<tbody>
<tr>
<td>PHYS*4510</td>
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</table>

Advanced Physics Project
0.50 Arts or Social Science elective
0.50 elective
One of:
  PHYS*4150  [0.50]  Solid State Physics
0.50 elective
Note: At least one of PHYS*4120 in semester 7 or PHYS*4150 in semester 8 must be taken.
Note: PHYS*4510 will be projects in biophysics, some of which may be in biological areas outside the Department of Physics.

Biophysics (Co-op) (BIOP:C)

Department of Physics, College of Physical and Engineering Science.

Major (Honours Program)

Since some of the required courses are not offered every semester, students entering the Major in Biophysics (Co-op) should plan their program in consultation with the Department of Physics Faculty Advisor.

To graduate from the Co-op program a minimum of 4 successfully completed work terms is normally required.

This major requires the completion of 21.25 credits as indicated below:

Semester 1 - Fall

The program for the first semester is the same as the Major in Biophysics (regular) program.

Semester 2 - Winter

Biol*1040  [0.50]  Biology II
Chem*1050  [0.50]  General Chemistry II
Coop*1100  [0.00]  Introduction to Co-operative Education

1 physics course from the following list (PHYS*1010 recommended):
  PHYS*1010  [0.50]  Introductory Electricity and Magnetism
  PHYS*1080  [0.50]  Physics for Life Sciences
  PHYS*1130  [0.50]  Physics with Applications

One of:
  Cis*2500  [0.50]  Intermediate Programming
  0.50 Arts or Social Science elective

One of:
  Math*1210  [0.50]  Calculus II
  Math*2080  [0.50]  Elements of Calculus II

Semester 3 - Fall

Math*2160  [0.50]  Linear Algebra I
Math*2200  [0.50]  Advanced Calculus I
Phys*2440  [0.75]  Mechanics I
Phys*2460  [0.75]  Electricity and Magnetism I

One of:
  Biol*2210  [0.50]  Introductory Cell Biology
  Mbg*2000  [0.50]  Introductory Genetics

Winter Semester

Coop*1000  [0.00]  Co-op Work Term I

Semester 4 - Summer

Biol*2580  [0.50]  Introductory Biochemistry
Math*2170  [0.50]  Differential Equations I
Phys*2260  [0.50]  Experimental Basis of Quantum Physics
Phys*3240  [0.50]  Statistical Physics I

0.50 Arts or Social Science elective*

*1.00 must be taken as Arts or Social Science electives in this Major

Fall Semester

Coop*2000  [0.00]  Co-op Work Term II

Semester 5 - Winter

Biol*3560  [0.50]  Structure and Function in Biochemistry
Phys*2030  [0.50]  Biophysics of Excitable Cells
Phys*2450  [0.75]  Mechanics II
Phys*2470  [0.75]  Electricity and Magnetism II
Phys*3220  [0.50]  Waves and Optics

Summer Semester

Coop*3000  [0.00]  Co-op Work Term III

Semester 6 - Fall

Math*3100  [0.50]  Differential Equations II
Phys*3100  [0.75]  Electronics
Phys*3230  [0.50]  Quantum Mechanics I

Semester 7 - Winter

Biol*4580  [0.50]  Membrane Biochemistry
Phys*3510  [0.50]  Intermediate Laboratory
Phys*4040  [0.50]  Quantum Mechanics II
Phys*4540  [0.50]  Molecular Biophysics

0.50 elective

Summer Semester

Coop*4000  [0.00]  Co-op Work Term IV

Semester 8 - Fall

Biol*4570  [0.50]  Applied Biochemistry
Phys*4120  [0.50]  Atomic and Molecular Physics
Phys*4140  [0.50]  Statistical Physics II
Phys*4560  [0.50]  Biophysical Methods

One of:
  Phys*4500  [0.50]  Advanced Physics Laboratory
  0.50 elective

Biotechnology (BIOT)

Department of Molecular and Cellular Biology, College of Biological Science.

Minor (Honours Program)

A minimum of 5.00 credits is required.

Bio*3560  [0.50]  Structure and Function in Biochemistry
Mbg*2020  [0.50]  Introductory Molecular Biology
Mcr*2020  [0.50]  Microbial Interactions and Associations
Mcr*2030  [0.50]  Microbial Growth

One of:
  Enng*2660  [0.50]  Biological Engineering Systems I
  Enng*3830  [0.50]  Bio-Process Engineering
  Food*4350  [0.50]  Processing Plant Technology

Two of:
  Cost*1000  [0.50]  Introduction to Marketing Management
  Econ*1050  [0.50]  Introductory Microeconomics
  Econ*1100  [0.50]  Introductory Macroeconomics
  Econ*2100  [0.50]  Economic Growth and Environmental Quality
  Econ*2310  [0.50]  Intermediate Microeconomics
  Econ*2410  [0.50]  Intermediate Macroeconomics

Three of:
  Ansc*2200  [0.50]  Principles of Aquaculture
  Ansc*4050  [0.50]  Recombinant DNA in Animal Science
  Biol*4570  [0.50]  Applied Biochemistry
  Food*3260  [0.50]  Industrial Microbiology
  Mbg*2420  [0.50]  Applied Molecular Genetics
  Mcr*3230  [0.50]  Immunology I
  Mcr*4180  [0.50]  Microbial Processes in Environmental Management
  Mcr*4260  [0.50]  Microbial Technology
  Pbio*3750  [0.50]  Plant Tissue Culture

Business Administration (BADM)

Department of Economics, College of Social and Applied Human Sciences.

Minor (Honours Program)

A minimum of 5.00 credits is required.

Agec*2220  [0.50]  Financial Accounting
Agec*2230  [0.50]  Management Accounting
Cost*3040  [0.50]  Business and Consumer Law
Econ*1050  [0.50]  Introductory Microeconomics
Econ*1100  [0.50]  Introductory Macroeconomics
Econ*2310  [0.50]  Intermediate Microeconomics
Econ*2410  [0.50]  Intermediate Macroeconomics
Econ*3560  [0.50]  Theory of Finance

One of:
  Agec*3310  [0.50]  Operations Management
  Htm*4390  [0.50]  Individuals and Groups in Organizations

One of:
  Agec*4370  [0.50]  Marketing Management
  Cost*1000  [0.50]  Introduction to Marketing Management

Students wishing to acquire further depth in Business Administration should consider taking electives from the areas of study listed under Management Economics in the B.A. degree.

Chemical Physics (CHPY)

Administered by the Office of the Dean, College of Physical and Engineering Science on behalf of the Department of Chemistry and Biochemistry and the Department of Physics.

Major (Honours Program)

Students may enter this major in Semester 1 or any semester thereafter. A student wishing to declare the major must consult the Faculty Advisor. A minimum of 21.75 credits is required.

Semester 1

Biol*1030  [0.50]  Biology I
Chem*1040  [0.50]  General Chemistry I
Math*1200  [0.50]  Calculus I

Note: PHYS*4510 will be projects in biophysics, some of which may be in biological areas outside the Department of Physics.
Students who are admitted deficient in one OAC/4U course in Biology, Chemistry or Physics must take the equivalent introductory course in first semester. The first-year science core in that subject should be completed by Semester 3.

Semester 2

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Course Title</th>
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<tbody>
<tr>
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<td>Biology I</td>
</tr>
<tr>
<td>CHEM*1050</td>
<td>0.50</td>
<td>General Chemistry II</td>
</tr>
<tr>
<td>MATH*1210</td>
<td>0.50</td>
<td>Calculus I</td>
</tr>
<tr>
<td>PHYS*1010</td>
<td>0.50</td>
<td>Introductory Electricity and Magnetism</td>
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</table>

0.50 Arts or Social Science elective

Semester 3

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Course Title</th>
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<tbody>
<tr>
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<td>Structure and Bonding</td>
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<td>MATH*2160</td>
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<td>Linear Algebra I</td>
</tr>
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<td>MATH*2200</td>
<td>0.50</td>
<td>Advanced Calculus I</td>
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<tr>
<td>PHYS*2440</td>
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<td>Electricity and Magnetism</td>
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Semester 4

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<tbody>
<tr>
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<td>Structure and Spectroscopy</td>
</tr>
<tr>
<td>CHEM*2480</td>
<td>0.50</td>
<td>Analytical Chemistry I</td>
</tr>
<tr>
<td>MATH*2170</td>
<td>0.50</td>
<td>Differential Equations I</td>
</tr>
<tr>
<td>PHYS*2450</td>
<td>0.75</td>
<td>Mechanics II</td>
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<tr>
<td>PHYS*2470</td>
<td>0.75</td>
<td>Electricity and Magnetism II</td>
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Semester 5

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<td>Thermodynamics and Kinetics</td>
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<tr>
<td>CHEM*3860</td>
<td>0.50</td>
<td>Quantum Chemistry</td>
</tr>
<tr>
<td>PHYS*3100</td>
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<td>Electronics</td>
</tr>
<tr>
<td>PHYS*3230</td>
<td>0.50</td>
<td>Quantum Mechanics I</td>
</tr>
<tr>
<td>PHYS*3240</td>
<td>0.50</td>
<td>Statistical Physics I</td>
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Semester 6

<table>
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<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>CHEM*3430</td>
<td>0.50</td>
<td>Analytical Chemistry II: Instrumental Analysis</td>
</tr>
<tr>
<td>PHYS*3320</td>
<td>0.50</td>
<td>Quantum Mechanics II</td>
</tr>
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<td>0.50 Arts or Social Science elective</td>
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One of:

- CHEM*3870  [0.50] Symmetry and Spectroscopy
- CHEM*4880  [0.50] Topics in Advanced Physical Chemistry

Semester 7

<table>
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<th>Course Code</th>
<th>Credits</th>
<th>Course Title</th>
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<td>Analytical Chemistry III: Analytical Instrumentation</td>
</tr>
<tr>
<td>IPS*4001</td>
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<td>Chemical Physics Research Project</td>
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<tr>
<td>MATH*3100</td>
<td>0.50</td>
<td>Differential Equations II</td>
</tr>
<tr>
<td>PHYS*4120</td>
<td>0.50</td>
<td>Atomic and Molecular Physics</td>
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<td>PHYS*4240</td>
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Semester 8

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One of:

- CHEM*3870  [0.50] Symmetry and Spectroscopy
- CHEM*4880  [0.50] Topics in Advanced Physical Chemistry

Chemical Physics (Co-op) (CHPY:C)

Administered by the Office of the Dean, College of Physical and Engineering Science on behalf of the Department of Chemistry and Biochemistry and the Department of Physics.

Major (Honours Program)

A minimum of 21.25 credits is required.

Semester 1 - Fall

The program for the first semester is the same as for the Major in Chemical Physics (regular program).

Semester 2 - Winter

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<td>COOP*1100</td>
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<td>MATH*1210</td>
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<td>Calculus II</td>
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<td>PHYS*1010</td>
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<td>Introductory Electricity and Magnetism</td>
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One of:

- CIS*2500  [0.50] Intermediate Programming |
- 0.50 Arts or Social Science elective

Semester 3 - Fall

<table>
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<th>Credits</th>
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<tr>
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<td>Linear Algebra I</td>
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<td>PHYS*2440</td>
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0.50 Arts or Social Science elective

Semester 4

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<td>CHEM*2480</td>
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Semester 5 - Winter

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<td>Analytical Chemistry II: Instrumental Analysis</td>
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<td>PHYS*2450</td>
<td>0.75</td>
<td>Mechanics II</td>
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<td>0.75</td>
<td>Electricity and Magnetism II</td>
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<tr>
<td>PHYS*3220</td>
<td>0.50</td>
<td>Waves and Optics</td>
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One of:

- CHEM*3640  [0.50] Chemistry of the Elements I |
- 0.50 elective

Semester 6

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<th>Course Code</th>
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<td>Quantum Mechanics I</td>
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<td>MATH*2170</td>
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<td>Differential Equations I</td>
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<tr>
<td>PHYS*2440</td>
<td>0.75</td>
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Semester 7

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<tr>
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<td>Analytical Chemistry III: Analytical Instrumentation</td>
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<td>IPS*4001</td>
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<td>Chemical Physics Research Project</td>
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<td>MATH*3100</td>
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<td>PHYS*4120</td>
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<td>Atomic and Molecular Physics</td>
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<tr>
<td>PHYS*4240</td>
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<td>Statistical Physics II</td>
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Semester 8

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<th>Course Title</th>
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<td>IPS*4002</td>
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<td>Chemical Physics Research Project</td>
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<tr>
<td>0.50 elective</td>
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** A minimum of 2.00 credits in science courses at the 4000 level is required for graduation.

Chemistry (CHEM)

Department of Chemistry and Biochemistry, College of Physical and Engineering Science.

Major (Honours Program)

Students may enter this major in Semester 1 or any semester thereafter. A student wishing to declare the major must consult the Faculty Advisor. The major will require the completion of 20.25 credits as indicated below:

Semester 1

<table>
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<th>Credits</th>
<th>Course Title</th>
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<td>Biology I</td>
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<td>General Chemistry I</td>
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<tr>
<td>MATH*1200</td>
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<td>Calculus I</td>
</tr>
<tr>
<td>PHYS*1000</td>
<td>0.50</td>
<td>An Introduction to Mechanics</td>
</tr>
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</table>

0.50 Arts or Social Science elective

Students who are admitted deficient in one OAC/4U course in Biology, Chemistry or Physics must take the equivalent introductory course in first semester. The first-year science core in that subject should be completed by Semester 3.

Semester 2

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>BIOL*1040</td>
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<td>Biology II</td>
</tr>
<tr>
<td>CHEM*1050</td>
<td>0.50</td>
<td>General Chemistry II</td>
</tr>
<tr>
<td>COOP*1000</td>
<td>0.00</td>
<td>Introduction to Co-operative Education</td>
</tr>
<tr>
<td>MATH*1210</td>
<td>0.50</td>
<td>Calculus II</td>
</tr>
<tr>
<td>PHYS*1010</td>
<td>0.50</td>
<td>Introductory Electricity and Magnetism</td>
</tr>
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</table>

0.50 elective

Semester 3

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM*2060</td>
<td>0.50</td>
<td>Structure and Bonding</td>
</tr>
<tr>
<td>CHEM*2400</td>
<td>0.75</td>
<td>Analytical Chemistry I</td>
</tr>
<tr>
<td>BIOC*2580</td>
<td>0.50</td>
<td>Introductory Biochemistry</td>
</tr>
</tbody>
</table>
CHEM*4880 [0.50] Topics in Advanced Physical Chemistry

CHEM*4730 [0.50] Synthetic Organic Chemistry

CHEM*4630 [0.50] Bioinorganic Chemistry

CHEM*4400 [0.50] Advanced Topics in Analytical Chemistry

CHEM*4010 [0.50] Chemistry and Industry

Restricted Electives - 1.00 credits from the following courses:

- CHEM*3870 [0.50] Symmetry and Spectroscopy
- CHEM*4010 [0.50] Chemistry and Industry
- CHEM*4400 [0.50] Advanced Topics in Analytical Chemistry
- CHEM*4620 [0.50] Advanced Topics in Inorganic Chemistry
- CHEM*4630 [0.50] Bioinorganic Chemistry
- CHEM*4720 [0.50] Organic Reactivity
- CHEM*4730 [0.50] Synthetic Organic Chemistry
- CHEM*4880 [0.50] Topics in Advanced Physical Chemistry

**3.00 credits from the 3000/4000 level as follows:

1. 1.50 comprising of (CHEM*3870 or CHEM*4880), (CHEM*4620 or CHEM*4630), (CHEM*4720 or CHEM*4730)
2. 1.50 chosen from CHEM*3870, CHEM*4010, CHEM*4400, BIOL*4520, BIOC*4540, BIOC*4550, BIOC*4570, BIOL*4620, CHEM*4630, CHEM*4720, CHEM*4730, CHEM*4740, CHEM*4880, CHEM*4900, CHEM*4910, TOX*4590

Note:
1. Some of these courses may have to be taken in Semester 6.
2. Some of these courses are offered only in alternate years, and some have additional prerequisites for which the student must plan ahead, with the assistance of the faculty advisor.

Minor (Honours Program)

A minor in Chemistry consists of at least 5.00 credits from the core course list and 2.50 from Chemistry at the 2000 level or above including 1.00 from the Restricted Electives list that follows:

Core Courses

CHEM*2060 [0.50] Structure and Bonding

CHEM*2070 [0.50] Structure and Spectroscopy

CHEM*2700 [0.50] Organic Chemistry I

One of:

- CHEM*2400 [0.75] Analytical Chemistry I
- CHEM*2480 [0.50] Analytical Chemistry I

One of:

- CHEM*2820 [0.50] Thermodynamics and Kinetics
- CHEM*2880 [0.50] Physical Chemistry

Restricted Electives - 1.00 credits from the following courses:

- CHEM*3870 [0.50] Symmetry and Spectroscopy
- CHEM*4010 [0.50] Chemistry and Industry
- CHEM*4400 [0.50] Advanced Topics in Analytical Chemistry
- CHEM*4620 [0.50] Advanced Topics in Inorganic Chemistry
- CHEM*4630 [0.50] Bioinorganic Chemistry
- CHEM*4720 [0.50] Organic Reactivity
- CHEM*4730 [0.50] Synthetic Organic Chemistry
- CHEM*4880 [0.50] Topics in Advanced Physical Chemistry

Chemistry (Co-op) (CHEM:C)

Department of Chemistry and Biochemistry, College of Physical and Engineering Science.

Major (Honours Program)

The major will require the completion of 20.25 credits as indicated below.

The course content of semesters 1 to 3 is the same as listed in the regular Honours Program Major.

To graduate from the Co-op program a minimum of 4 successfully completed work terms is normally required. These can be taken as four single work terms (Stream A), or as a double work term between two single work terms (Stream B).

Stream A: single work term option

Semester 1 - Fall

BIOI*1030 [0.50] Biology I

CHEM*1040 [0.50] General Chemistry I

MATH*1200 [0.50] Calculus I

PHYS*1000 [0.50] An Introduction to Mechanics

0.50 Arts or Social Science elective

Semester 2 - Winter

BIOI*1040 [0.50] Biology II

CHEM*1050 [0.50] General Chemistry II

COOP*1100 [0.00] Introduction to Co-operative Education

MATH*1210 [0.50] Calculus II

PHYS*1010 [0.50] Introductory Electricity and Magnetism

0.50 elective

Semester 3 - Fall

BIOI*2580 [0.50] Introductory Biochemistry

CHEM*2060 [0.50] Structure and Bonding

CHEM*2400 [0.75] Analytical Chemistry I

0.50 elective*

One of:

- MATH*2150 [0.50] Linear Algebra I
- MATH*2160 [0.50] Linear Algebra I

Winter Semester

COOP*1000 [0.00] Co-op Work Term I

Semester 4 - Summer

CHEM*2070 [0.50] Structure and Spectroscopy

CHEM*2700 [0.50] Organic Chemistry I

CHEM*3430 [0.50] Analytical Chemistry II: Instrumental Analysis

MATH*2170 [0.50] Differential Equations I

0.50 elective* or restricted elective**

Semester 5 - Fall

CHEM*2820 [0.50] Thermodynamics and Kinetics

CHEM*3640 [0.50] Chemistry of the Elements I

CHEM*3760 [0.50] Organic Chemistry III

1.50 elective* or restricted elective**

Semester 7 and 8

CHEM*3440 [0.50] Analytical Chemistry III: Analytical Instrumentation

3.00 Chemistry or Biochemistry

* selection of electives is subject to the following rules:
1. at least 1.00 credits in the program must be in the Arts & Social Sciences
2. PHYS*2040 or PHYS*2260
3. students who lack a background in computer science must select one of their electives from CSCI*1200 or CSCI*1500 to be taken by the end of their second year
4. approval of the chair of the Department of Chemistry and Biochemistry must be obtained for the selection of courses not specifically recommended
5. options for an "Area of Focus" or a minor are available. Subject areas include Biochemistry, Computing and Information Science, Earth Sciences, Environmental Sciences, Mathematical Sciences, and Physics. Please consult with your Departmental Advisor for more detail.

Note:
1. Some of these courses may have to be taken in Semester 6.
2. Some of these courses are offered only in alternate years, and some have additional prerequisites for which the student must plan ahead, with the assistance of the faculty advisor.

Minor (Honours Program)

A minor in Chemistry consists of at least 5.00 credits from the core course list and 2.50 from Chemistry at the 2000 level or above including 1.00 from the Restricted Electives list that follows:

Core Courses

CHEM*2060 [0.50] Structure and Bonding

CHEM*2070 [0.50] Structure and Spectroscopy

CHEM*2700 [0.50] Organic Chemistry I

One of:

- CHEM*2400 [0.75] Analytical Chemistry I
- CHEM*2480 [0.50] Analytical Chemistry I

One of:

- CHEM*2820 [0.50] Thermodynamics and Kinetics
- CHEM*2880 [0.50] Physical Chemistry

One of:

- MATH*2150 [0.50] Linear Algebra I
- MATH*2160 [0.50] Linear Algebra I

Restricted Electives - 1.00 credits from the following courses:

- CHEM*3870 [0.50] Symmetry and Spectroscopy
- CHEM*4010 [0.50] Chemistry and Industry
- CHEM*4400 [0.50] Advanced Topics in Analytical Chemistry
- CHEM*4620 [0.50] Advanced Topics in Inorganic Chemistry
- CHEM*4630 [0.50] Bioinorganic Chemistry
- CHEM*4720 [0.50] Organic Reactivity
- CHEM*4730 [0.50] Synthetic Organic Chemistry
- CHEM*4880 [0.50] Topics in Advanced Physical Chemistry

0.50 Arts or Social Science elective

Students who are admitted deficient in one OAC/4U course in Biology, Chemistry or Physics must take the equivalent introductory course in first semester. The first-year science core in that subject should be completed by Semester 3.

Semester 2 - Winter

PHYS*1000 [0.50] An Introduction to Mechanics

0.50 elective

Semester 3 - Fall

CHEM*2400 [0.75] Analytical Chemistry I

CHEM*2700 [0.50] Organic Chemistry II

CHEM*3430 [0.50] Analytical Chemistry II: Instrumental Analysis

MATH*2170 [0.50] Differential Equations I

0.50 elective* or restricted elective**

Semester 5 - Fall

CHEM*2820 [0.50] Thermodynamics and Kinetics

CHEM*3640 [0.50] Chemistry of the Elements I

CHEM*3860 [0.50] Quantum Chemistry

1.50 elective* or restricted elective**

Winter Semester

COOP*2000 [0.00] Co-op Work Term II

Semester 6 - Summer

CHEM*3750 [0.50] Organic Chemistry II

1.50 elective* or restricted elective**

One of:

- PHYS*2260 [0.50] Experimental Basis of Quantum Physics

0.50 elective*

Fall Semester

COOP*3000 [0.00] Co-op Work Term III

Semester 7 - Winter

CHEM*3650 [0.50] Chemistry of the Elements II

CHEM*3760 [0.50] Organic Chemistry III

1.50 elective* or restricted elective**

Summer Semester

COOP*4000 [0.00] Co-op Work Term IV

Semester 8 - Fall

2.50 elective* or restricted elective**

* selection of electives is subject to the following rules:
1. At least 1.00 credits in the program must be in the Arts & Social Sciences.
2. PHYS*2040 or PHYS*2260
3. Students who lack a background in computer science must select one of their electives from CIS*1200 or CIS*1500 to be taken by the end of their second year.

** 3.00 credits from the 3000/4000 level as follows:
1. 1.50 comprising of (CHEM*3870 or CHEM*4880), (CHEM*4620 or CHEM*4630), (CHEM*4720 or CHEM*4730)
2. 1.50 chosen from CHEM*3870, CHEM*4010, CHEM*4400, BIOC*4520, BIOC*4540, BIOC*4550, BIOC*4570, BIOC*4580, CHEM*4620, CHEM*4630, CHEM*4720, CHEM*4730, CHEM*4740, CHEM*4880, CHEM*4900, CHEM*4910, TOX*4590

Note:
Some of these courses are offered only in alternate years, and some have additional prerequisites for which the student must plan ahead, with the assistance of the faculty advisor.

** 3.00 credits from the 3000/4000 level as follows:
1. 1.50 comprising of (CHEM*3870 or CHEM*4880), (CHEM*4620 or CHEM*4630), (CHEM*4720 or CHEM*4730)
2. 1.50 chosen from CHEM*3870, CHEM*4010, CHEM*4400, BIOC*4520, BIOC*4540, BIOC*4550, BIOC*4570, BIOC*4580, CHEM*4620, CHEM*4630, CHEM*4720, CHEM*4730, CHEM*4740, CHEM*4880, CHEM*4900, CHEM*4910, TOX*4590

Note:
Some of these courses are offered only in alternate years, and some have additional prerequisites for which the student must plan ahead, with the assistance of the faculty advisor.

Stream B: double work term option

** Semester 1 - Fall
BIOL*1030 [0.50] Biology I
CHEM*1040 [0.50] General Chemistry I
MATH*1200 [0.50] Calculus I
PHYS*1000 [0.50] An Introduction to Mechanics
0.50 Arts or Social Science elective

** Semester 2 - Winter
BIOL*1040 [0.50] Biology II
CHEM*1050 [0.50] General Chemistry II
COOP*1100 [0.00] Introduction to Co-operative Education
MATH*1210 [0.50] Calculus II
PHYS*1010 [0.50] Introductory Electricity and Magnetism
0.50 elective

** Semester 3 - Fall
BIOC*2580 [0.50] Introductory Biochemistry
CHEM*2060 [0.50] Structure and Bonding
CHEM*2400 [0.75] Analytical Chemistry I
0.50 elective*
One of:
  MATH*2150 [0.50] Applied Matrix Algebra
  MATH*2160 [0.50] Linear Algebra I

Winter Semester
COOP*1000 [0.00] Co-op Work Term I

** Semester 4 - Summer
CHEM*2070 [0.50] Structure and Spectroscopy
CHEM*2700 [0.50] Organic Chemistry I
CHEM*3430 [0.50] Analytical Chemistry II: Instrumental Analysis
MATH*2170 [0.50] Differential Equations I
0.50 elective*

** Semester 5 - Fall
CHEM*2820 [0.50] Thermodynamics and Kinetics
CHEM*3640 [0.50] Chemistry of the Elements I
CHEM*3750 [0.50] Organic Chemistry II
CHEM*3860 [0.50] Quantum Chemistry
0.50 elective*

** Semester 6 - Winter
CHEM*3650 [0.50] Chemistry of the Elements II
CHEM*3760 [0.50] Organic Chemistry III
1.00 elective* or restricted elective**
One of:
  PHYS*2260 [0.50] Experimental Basis of Quantum Physics
  0.50 elective*

Summer Semester
COOP*2000 [0.00] Co-op Work Term II

Fall Semester
COOP*3000 [0.00] Co-op Work Term III

** Semester 7 - Winter
2.50 elective* or restricted elective**

Summer Semester
COOP*4000 [0.00] Co-op Work Term IV

** Semester 8 - Fall
CHEM*3440 [0.50] Analytical Chemistry III: Analytical Instrumentation
2.00 elective* or restricted elective**

* selection of electives is subject to the following rules:
1. At least 1.00 credits in the program must be in the Arts & Social Sciences.
2. PHYS*2040 or PHYS*2260
3. Students who lack a background in computer science must select one of their electives from CIS*1200 or CIS*1500 to be taken by the end of their second year.

Computing and Information Science (CIS)

Department of Computing and Information Science, College of Physical and Engineering Science.
The B.Sc. Programs in Computing and Information Science (CIS) provide a solid foundation in software design and computer applications, especially in the physical and biological sciences. The Major offers substantial computing experience, as well as an understanding of both fundamental principles and modern applications. The minor provides sufficient software experience to enable significant contribution to many areas of application.

Computing and Information Science Major (Honours Program)
Students may enter this major in Semester 1 or any semester thereafter. A student wishing to declare the major must consult the Faculty Advisor. The Major requires 12.0 credits in computing, mathematics and statistics, of which 2.5 credits are CIS electives. Other electives must include at least 1.50 in science courses with at least 0.50 at the 3000 level or above. At least 1.00 credit must be in the Arts of Social Sciences, and 0.5 remaining credit in the introductory science sequence (see note in semester 2)

** Semester 1
BIOL*1030 [0.50] Biology I
CHEM*1040 [0.50] General Chemistry I
CIS*1500 [0.50] Introduction to Programming
MATH*1200 [0.50] Calculus I
PHYS*1000 [0.50] An Introduction to Mechanics

** Semester 2
CIS*1910 [0.50] Discrete Structures in Computing I
CIS*2500 [0.50] Intermediate Programming
MATH*1210 [0.50] Calculus II
Two of (only one of PHYS*1010 or PHYS*1130 may be selected): *
  BIOL*1040 [0.50] Biology II
  CHEM*1050 [0.50] General Chemistry I
  CIS*1500 [0.50] Introduction to Programming
  MATH*1200 [0.50] Calculus I
  PHYS*1000 [0.50] An Introduction to Mechanics

*Note: A third course from this list must be taken before graduation.

** Semester 3
CIS*2030 [0.50] Structure and Application of Microcomputers
CIS*2430 [0.50] Object Oriented Programming
CIS*2520 [0.50] Data Structures
CIS*2910 [0.50] Discrete Structures in Computing II
MATH*2150 [0.50] Applied Matrix Algebra

** Semester 4
CIS*2750 [0.75] Software Systems Development and Integration
CIS*3110 [0.50] Operating Systems
STAT*2040 [0.50] Statistics I
0.75 elective

** Semester 5
CIS*2460 [0.50] Modelling of Computer Systems
CIS*3530 [0.50] Data Base Systems and Concepts
CIS*3750 [0.75] System Analysis and Design in Applications
0.25 elective

** Semester 6
CIS*3490 [0.50] The Analysis and Design of Computer Algorithms
1.00 CIS elective at the 3000 level or above (CIS*3200 [0.75] recommended)
The recommended schedule of studies for Co-Op Stream B (5-year) is as follows:

Semester 1(Fall)
- BIOL*1030 [0.50] Biology I
- CHEM*1040 [0.50] General Chemistry I
- CIS*1500 [0.50] Introduction to Programming
- MATH*1200 [0.50] Calculus I
- PHYS*1000 [0.50] An Introduction to Mechanics

Students who are admitted deficient in one OAC/4U course in Biology, Chemistry or Physics must take the equivalent introductory course in first semester. The first-year science core in that subject should be completed by Semester 3.

Semester 2(Winter)
- CIS*1910 [0.50] Discrete Structures in Computing I
- CIS*2500 [0.50] Intermediate Programming
- COOP*1100 [0.00] Introduction to Co-operative Education
- MATH*1210 [0.50] Calculus II

Two of (only one of PHYS*1010 or PHYS*1130 may be selected): *
- BIOL*1040 [0.50] Biology II
- CHEM*1050 [0.50] General Chemistry II
- PHYS*1010 [0.50] Introductory Electricity and Magnetism
- PHYS*1130 [0.50] Physics with Applications

*Note: A third course from this list must be taken before graduation.

Semester 3(Summer)
- CIS*2030 [0.50] Structure and Application of Microcomputers
- CIS*2430 [0.50] Object Oriented Programming
- CIS*2520 [0.50] Data Structures
- CIS*2910 [0.50] Discrete Structures in Computing II
- MATH*2150 [0.50] Applied Matrix Algebra

Fall Semester
- COOP*1000 [0.00] Co-op Work Term I

Semester 4(Winter)
- CIS*2750 [0.75] Software Systems Development and Integration
- CIS*3110 [0.50] Operating Systems
- STAT*2040 [0.50] Statistics I

0.75 elective

Summer Semester
- COOP*2000 [0.00] Co-op Work Term II

Semester 5(Fall)
- CIS*2460 [0.50] Modelling of Computer Systems
- CIS*3530 [0.50] Data Base Systems and Concepts
- CIS*3750 [0.75] System Analysis and Design in Applications

0.25 elective

One of:
- MATH*2340 [0.50] Operations Research
  (Note: requires co-requisite of MATH*2200)

0.50 elective

Note: MATH*2130 in Semester 6 or MATH*3240 in Semester 5 must be taken.

Winter Semester
- COOP*3000 [0.00] Co-op Work Term III

Semester 6(Summer)
- CIS*3490 [0.50] The Analysis and Design of Computer Algorithms

1.00 CIS elective at the 3000 level or above ( C IS*3200 [0.75] recommended)

0.50 elective

One of:
- MATH*2130 [0.50] Numerical Methods

0.50 elective

Note: MATH*2130 in Semester 6 or MATH*3240 in Semester 5 must be taken.

Semester 7(Fall)
- 0.50 CIS elective at 3000 level or above
- 1.00 credits in CIS at the 4000 level
- 1.50 elective

1.00 credits in CIS at the 4000 level

Note: MATH*2130 in Semester 6 or MATH*3240 in Semester 5 must be taken.

Semester 8(Winter)
- 1.50 elective
- 1.00 credits in CIS at the 4000 level

The recommended schedule of studies for Co-Op Stream B (5-year) is as follows:

Semester 1(Fall)
- BIOL*1030 [0.50] Biology I
- CHEM*1040 [0.50] General Chemistry I
- CIS*1500 [0.50] Introduction to Programming
- MATH*1200 [0.50] Calculus I
- PHYS*1000 [0.50] An Introduction to Mechanics

Students who are admitted deficient in one OAC/4U course in Biology, Chemistry or Physics must take the equivalent introductory course in first semester. The first-year science core in that subject should be completed by Semester 3.

Semester 2(Winter)
- CIS*1910 [0.50] Discrete Structures in Computing I
- CIS*2500 [0.50] Intermediate Programming
- COOP*1100 [0.00] Introduction to Co-operative Education
- MATH*1210 [0.50] Calculus II

Two of (only one of PHYS*1010 or PHYS*1130 may be selected): *
- BIOL*1040 [0.50] Biology II
- CHEM*1050 [0.50] General Chemistry II
- PHYS*1010 [0.50] Introductory Electricity and Magnetism
- PHYS*1130 [0.50] Physics with Applications

*Note: A third course from this list must be taken before graduation.

Summer Semester Off

Semester 3(Fall)
- CIS*2030 [0.50] Structure and Application of Microcomputers
- CIS*2430 [0.50] Object Oriented Programming
- CIS*2520 [0.50] Data Structures
- CIS*2910 [0.50] Discrete Structures in Computing II
- MATH*2150 [0.50] Applied Matrix Algebra

Note: STAT*2100 (F) is an acceptable replacement for STAT*2040.

0.25 elective

Summer Semester
- COOP*1000 [0.00] Co-op Work Term I

Semester 5(Fall)
- CIS*2460 [0.50] Modelling of Computer Systems
- CIS*3530 [0.50] Data Base Systems and Concepts
- CIS*3750 [0.75] System Analysis and Design in Applications

0.25 elective

One of:
- MATH*3240 [0.50] Operations Research
  (Note: requires co-requisite of MATH*2200)

0.50 elective
Note: MATH*2130 in Semester 6 or MATH*3240 in Semester 5 must be taken. CIS*3210 should be taken here to enable subsequent courses in distributed systems.

Winter Semester
COOP*2000 [0.00] Co-op Work Term II

Semester 5 and 6
GEOG*3000 [0.50] Fluvial Processes
GEOG*3610 [0.50] Environmental Hydrology
GEOL*2110 [0.50] Earth Material Science
GEOL*3190 [0.50] Environmental Water Chemistry
1.50 from List A
1.50 electives

Semester 7 and 8
GEOG*4150 [0.50] Sedimentary Processes
1.50 from List A
3.00 electives

List A
GEOG*3620 [0.50] Desert Environments
GEOG*4250 [0.50] Coastal Processes
GEOG*4690 [1.00] Geography Field Research
GEOL*3060 [0.50] Groundwater
GEOL*3090 [0.50] Applied Structural Geology
GEOL*3250 [0.50] Field Methods in Geosciences
GEOL*4090 [0.50] Sedimentology
GEOL*4130 [0.50] Clay and Humic Chemistry
MET*3050 [0.50] Microclimatology

Other Requirements
1. At least 1.50 credits from List A must be at the 4000 level.
2. At least 2.50 electives must be acceptable science courses.
3. At least 6.00 of all science credits must be 3000 or 4000 level, of which at least 2.00 must be at the 4000 level.

Earth Surface Science (ESS)
Department of Geography, College of Social and Applied Human Sciences.
Department of Land Resource Science, Ontario Agricultural College.

This program combines elements of Geomorphology, Geology and Meteorology and focuses on the study of processes and properties of the abiotic component of the environment.

Graduates of the program should meet the knowledge requirements for eligibility to apply for membership as Environmental Geoscientists in the Association of Professional Geoscientists of Ontario (APGO), allowing for use of the designation P. Geo.

Students may enter this major in Semester 1 or any semester thereafter. A student wishing to declare the major must consult the Faculty Advisor. Students planning to enter the program are advised to consult advisors in either of the two departments. Students needing program approval should contact the B.Sc. Advisors in the Department of Geography.

Major (Honours Program)

Semester 1
BIOL*1030 [0.50] Biology I
CHEM*1040 [0.50] General Chemistry I
GEOG*1300 [0.50] Introduction to the Biophysical Environment
PHYS*1080 [0.50] Physics for Life Sciences

0.50 Mathematics course from:
  MATH*1080 [0.50] Elements of Calculus I
  MATH*1200 [0.50] Calculus I

Students who are admitted deficient in one OAC/4U course in Biology, Chemistry or Physics must take the equivalent introductory course in first semester. The first-year science core in that subject should be completed by Semester 3.

Semester 2
BIOL*1040 [0.50] Biology II
CHEM*1050 [0.50] General Chemistry II
PHYS*1130 [0.50] Physics with Applications
GEOL*1050 [0.50] Geology and the Environment

0.50 Arts or Social Science elective

Semester 3 and 4
GEOG*2000 [0.50] Geomorphology
GEOG*2110 [0.50] Climate and the Biophysical Environment
GEOL*2020 [0.50] Stratigraphy
GEOL*2200 [0.50] Glacial Geology
MET*2030 [0.50] Meteorology and Climatology
SOIL*2010 [0.50] Soil Science

0.50 Arts or Social Science elective
0.50 elective
0.50 Mathematics/Computer Science from:
  CIS*1200 [0.50] Introduction to Computing
  CIS*1500 [0.50] Introduction to Programming
  MATH*1210 [0.50] Calculus II
  MATH*2080 [0.50] Elements of Calculus II
One of:
  GEOG*2460 [0.50] Analysis in Geography
  STAT*2040 [0.50] Statistics I

5.00 credits in CIS at the 4000 level
1.00 elective

Semester 8 (Fall)
COOP*4000 [0.00] Co-op Work Term IV

Note: MATH*2130 in Semester 6 or MATH*3240 in Semester 5 must be taken.

Fall Semester
COOP*3000 [0.00] Co-op Work Term III

Semester 7 (Winter)
0.50 CIS elective at 3000 level or above
1.00 elective
1.00 credits in CIS at the 4000 level

Summer Semester
COOP*4000 [0.00] Co-op Work Term IV

Semester 8 (Fall)
1.50 elective
1.00 credits in CIS at the 4000 level

Ecology (ECOL)
Department of Integrative Biology, College of Biological Science.

The program provides a solid foundation in the principles of ecology, and further training in both pure and applied aspects of ecology. After the fourth semester, the student may choose to enter one (1) of three (3) areas of emphasis, or to design a course package that meets his/her own specific ecological interests (General Ecology). The program offers preparation for careers in conservation, resource management, ecological consulting, or nature interpretation; or for graduate training and research in fundamental ecology. This major qualifies students for post-graduate work in the environmental sciences, and provides a sound science background for students wishing to pursue careers in teaching, government service or the private sector.

Major (Honours Program)

Students may enter this major in Semester 1 or any semester thereafter. A student wishing to declare the major must consult the Faculty Advisor. A minimum total of 20.00 credits is required to complete the major.

Semester 1
BIOL*1030 [0.50] Biology I
CHEM*1040 [0.50] General Chemistry I
MATH*1080 [0.50] Elements of Calculus I

0.50 Arts or Social Science elective

Semester 2
BIOL*1040 [0.50] Biology II
CHEM*1050 [0.50] General Chemistry II
PHYS*1070 [0.50] Introductory Physics for Life Sciences

0.50 Arts or Social Science elective

Semester 3
GEOG*2010 [0.50] Environmental Geology
GEOG*2020 [0.50] Geomorphology
GEOG*2030 [0.50] Environmental Hydrology

0.50 Arts or Social Science elective

Semester 4
BIOL*1030 [0.50] Biology I
CHEM*1040 [0.50] General Chemistry I
MATH*1080 [0.50] Elements of Calculus I

0.50 Arts or Social Science elective

5.00 credits in CIS at the 4000 level
1.00 elective

Semester 5
GEOG*3000 [0.50] Fluvial Processes
GEOG*3610 [0.50] Environmental Hydrology
GEOL*2110 [0.50] Earth Material Science
GEOL*3190 [0.50] Environmental Water Chemistry

1.50 from List A
1.50 electives

Semester 6
GEOG*4150 [0.50] Sedimentary Processes
1.50 from List A
3.00 electives

List A
GEOG*3620 [0.50] Desert Environments
GEOG*4250 [0.50] Coastal Processes
GEOG*4690 [1.00] Geography Field Research
GEOL*3060 [0.50] Groundwater
GEOL*3090 [0.50] Applied Structural Geology
GEOL*3250 [0.50] Field Methods in Geosciences
GEOL*4090 [0.50] Sedimentology
GEOL*4130 [0.50] Clay and Humic Chemistry
MET*3050 [0.50] Microclimatology

Other Requirements
1. At least 1.50 credits from List A must be at the 4000 level.
2. At least 2.50 electives must be acceptable science courses.
3. At least 6.00 of all science credits must be 3000 or 4000 level, of which at least 2.00 must be at the 4000 level.

Other Requirements
1. At least 1.50 credits from List A must be at the 4000 level.
2. At least 2.50 electives must be acceptable science courses.
3. At least 6.00 of all science credits must be 3000 or 4000 level, of which at least 2.00 must be at the 4000 level.
### Environmental Biology (ENVB)

The honours B.Sc. program in Environmental Biology combines a study of the functioning of living organisms with study of the physical environment and the interaction between them. Opportunity is presented to concentrate in one of two areas of emphasis on how the understanding of organisms and their environment relates to Plant Protection (pest management) or Environmental Quality.

#### Major (Honours Program)

Students may enter this major in Semester 1 or any semester thereafter. A student wishing to declare the major must consult the Faculty Advisor.

#### Semester 1

- **BIOL*3010** [0.50] Laboratory and Field Work in Ecology
- **CHEM*1050** [0.50] General Chemistry I
- **CHEM*1040** [0.50] General Chemistry II
- **PHYS*1070** [0.50] Introductory Physics for Life Sciences
- **PHYS*1080** [0.50] Elements of Calculus I
- **MATH*1080** [0.50] Elements of Calculus I

#### Semester 2

- **BIOL*4150** [0.50] Wildlife Conservation and Management
- **ECON*2100** [0.50] Economic Growth and Environmental Quality
- **ENVS*3320** [0.50] Principles of Landscape Ecology
- **ZOO*3300** [0.50] Evolution
- **ZOO*3200** [0.50] Comparative Animal Physiology I
- **ZOO*4800** [0.50] Field Biology

#### Areas of Emphasis

**General Ecology (GECO)**

A minimum of 3.00 credits from the area-of-emphasis-specific credits, plus 1.50 additional science credits. Of the 4.50 credits, at least 3.50 must be at the 3000 or 4000 level.

**Experimental Ecology (EECO)**

- **ZOO*3200** [0.50] Comparative Animal Physiology I
- **ZOO*4070** [0.50] Animal Behaviour
- **ZOO*4170** [0.50] Experimental Comparative Animal Physiology

**Interpretive Ecology (IE)**

- **ZOO*4070** [0.50] Animal Behaviour
- **ZOO*4170** [0.50] Experimental Comparative Animal Physiology

**Resource Conservation (RC)**

- **AGEC*2700** [0.50] Survey of Natural Resource Economics
- **BIOL*3130** [0.50] Conservation Biology

---

**Environmental Biology (ENVB)**

Department of Environmental Biology, Ontario Agricultural College.

The honours B.Sc. program in Environmental Biology combines a study of the functioning of living organisms with study of the physical environment and the interaction between them. Opportunity is presented to concentrate in one of two areas of emphasis on how the understanding of organisms and their environment relates to Plant Protection (pest management) or Environmental Quality.

#### Major (Honours Program)

Students may enter this major in Semester 1 or any semester thereafter. A student wishing to declare the major must consult the Faculty Advisor.

#### Semester 1

- **BIOL*3010** [0.50] Laboratory and Field Work in Ecology
- **CHEM*1050** [0.50] General Chemistry I
- **CHEM*1040** [0.50] General Chemistry II
- **PHYS*1070** [0.50] Introductory Physics for Life Sciences
- **PHYS*1080** [0.50] Elements of Calculus I

#### Semester 2

- **BIOL*4150** [0.50] Wildlife Conservation and Management
- **ECON*2100** [0.50] Economic Growth and Environmental Quality
- **ENVS*3320** [0.50] Principles of Landscape Ecology
- **ZOO*3300** [0.50] Evolution
- **ZOO*3200** [0.50] Comparative Animal Physiology I
- **ZOO*4800** [0.50] Field Biology

#### Areas of Emphasis

Students in Environmental Biology must select one (1) of the two (2) following areas of emphasis by the end of Semester 4.

**Environmental Quality (EQ)**

#### Semester 5

- **BIOL*3450** [0.50] Introduction to Aquatic Environments
Interdisciplinary Program, Department of Environmental Biology, Ontario Agricultural College.

Major (Honours Program)

Students may enter this major in Semester 1 or any semester thereafter. A student wishing to declare the major must consult the Faculty Advisor.

Semester 1

- BIOL*1030 [0.50] Biology I
- CHEM*1040 [0.50] General Chemistry I
- PHYS*1070 [0.50] Introductory Physics for Life Sciences

0.50 elective*

Students who are admitted deficient in one OAC/4U course in Biology, Chemistry or Physics must take the equivalent introductory course in first semester. The first-year science core in that subject should be completed by Semester 3.

Semester 2

- BIOL*1040 [0.50] Biology II
- CHEM*1050 [0.50] General Chemistry II
- PHYS*1080 [0.50] Physics for Life Sciences
- STAT*2040 [0.50] Statistics I

0.50 elective*

Semester 3

- CHEM*2480 [0.50] Analytical Chemistry I
- BIOL*2580 [0.50] Introductory Biochemistry
- MBG*2000 [0.50] Introductory Genetics
- TOX*2000 [0.50] Principles of Toxicology

0.50 elective*

Semester 4

- BIOL*2060 [0.50] Ecology
- CHEM*2700 [0.50] Organic Chemistry I
- MBG*2020 [0.50] Introductory Molecular Biology
- STAT*2050 [0.50] Statistics II

0.50 elective*

Semester 5

- BOT*2100 [0.50] Life Strategies of Plants
- BIOL*3560 [0.50] Structure and Function in Biochemistry
- TOX*3300 [0.50] Analytical Toxicology
- ZOO*4170 [0.50] Comparative Animal Physiology I

0.50 elective*

Semester 6

- BIOL*3450 [0.50] Introduction to Aquatic Environments
- MBG*3350 [0.75] Laboratory Methods in Molecular Biology I
- MICR*4180 [0.50] Microbial Processes in Environmental Management
- ZOO*4350 [0.50] Biology of Polluted Waters

0.25 elective*

Semester 7

- PBIO*4530 [0.50] Environmental Pollution Stresses on Plants
- STAT*3510 [0.50] Environmental Risk Assessment
- TOX*4200 [0.50] Topics in Toxicology
- TOX*4550 [0.50] Ecotoxicological Risk Characterization

0.50 elective*
Environmental Toxicology (Co-op) (ETOX:C)  
Interdisciplinary Program, Department of Environmental Biology, Ontario Agricultural College.

Major (Honours Program)

A 70% average in the science courses of semesters 1 and 2 is normally required for admission to semester 3 of this program. An optional fourth co-op work term is available.

Semester 1

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Unit</th>
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<tbody>
<tr>
<td>BIOL*1030</td>
<td>[0.50] Biology I</td>
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<td>CHEM*1040</td>
<td>[0.50] General Chemistry I</td>
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<tr>
<td>MATH*1080</td>
<td>[0.50] Elements of Calculus I</td>
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</tr>
<tr>
<td>PHYS*1070</td>
<td>[0.50] Introductory Physics for Life Sciences</td>
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</tbody>
</table>

0.50 elective*

Students who are admitted deficient in one OAC/4U course in Biology, Chemistry or Physics must take the equivalent introductory course in first semester. The first-year science core in that subject should be completed by Semester 3.

Semester 2

<table>
<thead>
<tr>
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<th>Title</th>
<th>Unit</th>
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<td>BIOL*1040</td>
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<td>CHEM*1050</td>
<td>[0.50] General Chemistry II</td>
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<td>COOP*1100</td>
<td>[0.00] Introduction to Co-operative Education</td>
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<tr>
<td>PHYS*1080</td>
<td>[0.50] Physics for Life Sciences</td>
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<td>STAT*2040</td>
<td>[0.50] Statistics I</td>
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0.50 elective*

Stream A

Semester 3 - Fall

<table>
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<tr>
<td>CHEM*2480</td>
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<tr>
<td>BIOC*2580</td>
<td>[0.50] Introductory Biochemistry</td>
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</tr>
<tr>
<td>MBG*2000</td>
<td>[0.50] Introductory Genetics</td>
<td></td>
</tr>
<tr>
<td>TOX*2000</td>
<td>[0.50] Principles of Toxicology</td>
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0.50 elective

Winter Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Unit</th>
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<tbody>
<tr>
<td>COOP*1000</td>
<td>[0.00] Co-op Work Term I</td>
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Semester 4 - Summer

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<th>Title</th>
<th>Unit</th>
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<tbody>
<tr>
<td>CHEM*2700</td>
<td>[0.50] Organic Chemistry I</td>
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<tr>
<td>SOIL*2010</td>
<td>[0.50] Soil Science</td>
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<tr>
<td>STAT*2050</td>
<td>[0.50] Statistics II</td>
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<tr>
<td>TOX*3360</td>
<td>[0.50] Environmental Chemistry and Toxicology</td>
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0.50 elective

Semester 5 - Fall

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Unit</th>
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</thead>
<tbody>
<tr>
<td>BIOL*2060</td>
<td>[0.50] Introduction to Aquatic Environments</td>
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</tr>
<tr>
<td>BIOL*3450</td>
<td>[0.50] Analytical Toxicology</td>
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<tr>
<td>ZOO*3200</td>
<td>[0.50] Comparative Animal Physiology I</td>
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0.50 elective

Semester 6 - Winter

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOT*2100</td>
<td>[0.50] Life Strategies of Plants</td>
<td></td>
</tr>
<tr>
<td>BIOC*3560</td>
<td>[0.50] Structure and Function in Biochemistry</td>
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</tr>
<tr>
<td>ENVB*3030</td>
<td>[0.50] Pesticides and the Environment</td>
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<tr>
<td>MBG*2020</td>
<td>[0.50] Introductory Molecular Biology</td>
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<tr>
<td>ZOO*4170</td>
<td>[0.50] Experimental Comparative Animal Physiology</td>
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Summer Semester

<table>
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<th>Course Code</th>
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<td>COOP*2000</td>
<td>[0.00] Co-op Work Term II</td>
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<tr>
<td>COOP*3000</td>
<td>[0.00] Co-op Work Term III</td>
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Fall Semester

Semester 7 - Winter

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Unit</th>
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<tbody>
<tr>
<td>PBIO*4530</td>
<td>[0.50] Environmental Pollution Stresses on Plants</td>
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</tr>
<tr>
<td>STAT*3510</td>
<td>[0.50] Environmental Risk Assessment</td>
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<tr>
<td>TOX*4200</td>
<td>[0.50] Topics in Toxicology</td>
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</tr>
<tr>
<td>TOX*4550</td>
<td>[0.50] Ecotoxicological Risk Characterization</td>
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0.50 elective

Semester 8 - Fall

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<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Unit</th>
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<tbody>
<tr>
<td>MGB*3350</td>
<td>[0.75] Laboratory Methods in Molecular Biology I</td>
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<tr>
<td>MICR*4180</td>
<td>[0.50] Microbial Processes in Environmental Management</td>
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</tr>
<tr>
<td>ZOO*4350</td>
<td>[0.50] Biology of Polluted Waters</td>
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1.00 elective

Food Science (FOOD)

Department of Food Science, Ontario Agricultural College.

Major (Honours Program)

Students may enter this major in Semester 1 or any semester thereafter. A student wishing to declare the major must consult the Faculty Advisor.

Semester 1 - Fall

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Unit</th>
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<tbody>
<tr>
<td>BIOL*1030</td>
<td>[0.50] Biology I</td>
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<td>CHEM*1040</td>
<td>[0.50] General Chemistry I</td>
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<tr>
<td>MATH*1080</td>
<td>[0.50] Elements of Calculus I</td>
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<tr>
<td>PHYS*1070</td>
<td>[0.50] Introductory Physics for Life Sciences</td>
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</table>

0.50 Arts or Social Science elective

Note: CIS*1200, rather than an Arts or Social Science credit is recommended for those needing to improve their computer skills.

Students who are admitted deficient in one OAC/4U course in Biology, Chemistry or Physics must take the equivalent introductory course in first semester. The first-year science core in that subject should be completed by Semester 3.

Semester 2 - Winter

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Unit</th>
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<tbody>
<tr>
<td>BIOL*1040</td>
<td>[0.50] Biology II</td>
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<td>CHEM*1050</td>
<td>[0.50] General Chemistry II</td>
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<tr>
<td>PHYS*1080</td>
<td>[0.50] Physics for Life Sciences</td>
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0.50 Arts or Social Science elective

Semester 3 - Fall

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Unit</th>
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<tbody>
<tr>
<td>BIOC*2580</td>
<td>[0.50] Introductory Biochemistry</td>
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<tr>
<td>CHEM*2880</td>
<td>[0.50] Physical Chemistry</td>
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<tr>
<td>FOOD*2150</td>
<td>[0.50] Introduction to Nutritional and Food Science</td>
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<tr>
<td>STAT*2040</td>
<td>[0.50] Statistics I</td>
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0.50 elective

Semester 4 - Winter

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Unit</th>
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<tbody>
<tr>
<td>FOOD*3010</td>
<td>[0.50] Food Chemistry</td>
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<tr>
<td>FOOD*3160</td>
<td>[0.75] Food Processing I</td>
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<tr>
<td>FOOD*3230</td>
<td>[0.75] Food Microbiology</td>
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0.50 elective

Semester 5 - Fall

<table>
<thead>
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<th>Course Code</th>
<th>Title</th>
<th>Unit</th>
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<tbody>
<tr>
<td>FOOD*3020</td>
<td>[0.50] Food Chemistry Laboratory</td>
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<tr>
<td>FOOD*3170</td>
<td>[0.50] Food Processing II</td>
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<tr>
<td>FOOD*3260</td>
<td>[0.50] Industrial Microbiology</td>
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1.00 elective

Semester 6 - Winter

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<th>Course Code</th>
<th>Title</th>
<th>Unit</th>
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<tbody>
<tr>
<td>FOOD*4120</td>
<td>[0.75] Food Analysis</td>
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1.75 electives

Semester 7 - Fall

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<th>Course Code</th>
<th>Title</th>
<th>Unit</th>
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</thead>
<tbody>
<tr>
<td>FOOD*4100</td>
<td>[0.25] Communication in Food Science II</td>
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<tr>
<td>FOOD*4700</td>
<td>[0.50] Food Product Development</td>
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</table>

1.75 electives

Semester 8 - Winter

Notes:

1. ENGL*1200 is recommended for those students needing to improve their English grammar.
2. FOOD*2150 could be replaced by FOOD*2010 with permission of department advisor.
3. Of the 7.00 elective credits:
   - At least 2.00 must be Arts or Social Sciences.
   - At least 2.00 must be from list of Restricted Electives.
   - At least 1.00 must be from additional science electives.

Restricted Electives:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Unit</th>
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</thead>
<tbody>
<tr>
<td>COST*3010</td>
<td>[0.50] Quality Management</td>
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<tr>
<td>FOOD*3700</td>
<td>[0.50] Sensory Evaluation of Foods</td>
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<tr>
<td>FOOD*4010</td>
<td>[0.50] Food Plant Sanitation and Quality Control</td>
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<tr>
<td>FOOD*4070</td>
<td>[0.50] Food Packaging</td>
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<tr>
<td>FOOD*4090</td>
<td>[0.50] Functional Foods and Nutraceuticals</td>
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<td>FOOD*4110</td>
<td>[0.50] Meat and Poultry Processing</td>
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<tr>
<td>FOOD*4140</td>
<td>[0.25] Communication in Food Science III</td>
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<tr>
<td>FOOD*4220</td>
<td>[0.25] Topics in Food Science</td>
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<td>FOOD*4290</td>
<td>[0.25] Research in Food Science I</td>
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<tr>
<td>FOOD*4340</td>
<td>[0.25] Cheese and Fermented Dairy Foods</td>
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<td>FOOD*4400</td>
<td>[0.50] Dairy Processing</td>
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<tr>
<td>FOOD*4520</td>
<td>[0.50] Cereal Technology</td>
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<tr>
<td>POPM*4040</td>
<td>[0.50] Epidemiology of Food-borne Diseases</td>
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</table>

Credit Summary (20.00 total credits)

4.00 - 1st year science required
9.00 - Required in semesters 3-8
Semester 4 - Winter

- STAT*2040 [0.50] Statistics I
- BIOS*2150 [0.50] Introduction to Nutritional and Food Science

Semester 3 - Fall

- PHYS*1070 [0.50] Introduction to Physics for Life Sciences
- MATH*1080 [0.50] Elements of Calculus I

Semester 2 - Winter

- PHYS*4400 [0.50] Dairy Processing
- FOOD*4520 [0.50] Cereal Technology
- FOOD*4700 [0.50] Food Product Development
- NUTR*3210 [0.50] Fundamentals of Nutrition
- POPM*4040 [0.50] Epidemiology of Food-borne Diseases

Restricted Electives

Choose from the following list to bring the total to a minimum of 5.00 credits for the Minor:

- FOOD*2620 [0.50] Food Engineering Principles
- FOOD*3170 [0.50] Food Processing II
- FOOD*3260 [0.50] Industrial Microbiology
- FOOD*3700 [0.50] Sensory Evaluation of Foods
- FOOD*4010 [0.50] Food Plant Sanitation and Quality Control
- FOOD*4070 [0.50] Food Packaging
- FOOD*4090 [0.50] Functional Foods and Nutraceuticals
- FOOD*4110 [0.50] Meat and Poultry Processing
- FOOD*4120 [0.75] Food Analysis
- FOOD*4340 [0.50] Cheese and Fermented Dairy Foods
- FOOD*4400 [0.50] Dairy Processing
- FOOD*4520 [0.50] Cereal Technology
- FOOD*4700 [0.50] Food Product Development
- NUTR*3210 [0.50] Fundamentals of Nutrition
- POPM*4040 [0.50] Epidemiology of Food-borne Diseases

Semester 1 - Fall

- BIOL*1030 [0.50] Biology I
- CHEM*1040 [0.50] General Chemistry I
- MATH*1080 [0.50] Elements of Calculus I
- PHYS*1070 [0.50] Introduction to Physics for Life Sciences

Note: CIS*1200, rather than an Arts or Social Science credit is recommended for those needing to improve their computer skills.

Students who are admitted deficient in one OAC/4U course in Biology, Chemistry or needing to improve their computer skills.

Note: See Notes and Credit Summary in Food Science Major.

Forest Science (FORS)

Department of Environmental Biology, Ontario Agricultural College.

Minor (Honours Program)

A minor in Forest Science consists of 5.00 credits from the following courses:

- BOT*2050 [0.50] Plant Ecology
- ENVB*2030 [0.50] Current Issues in Forest Science
- ENVB*4420 [0.50] Problems in Environmental Biology
- ENVB*4780 [0.50] Forest Ecology
- HORT*3260 [0.50] Woody Plants

(ENVB*4420 senior thesis topic to be arranged with faculty advisor)

Three of:

- ENVB*3090 [0.50] Insects in Relation to Wildlife
- GEOG*3110 [0.50] Biotic and Natural Resources
- PBIO*4530 [0.50] Environmental Pollution Stresses on Plants

Two of:

- AGEC*2700 [0.50] Survey of Natural Resource Economics
- ENVB*3000 [0.50] Nature Interpretation
- PBIO*4100 [0.50] Soil Plant Relationships
- PBIO*4530 [0.50] Environmental Pollution Stresses on Plants

A minor in Functional Foods and Nutraceuticals consists of 5.00 credits.

- FOOD*2580 [0.50] Introductory Biochemistry
- ECON*2150 [0.50] Introduction to Business Economics
- NUTR*3210 [0.50] Fundamentals of Nutrition
- TOX*2000 [0.50] Principles of Toxicology

2.00 Restricted Electives

One of:

- FOOD*2010 [0.50] Principles of Food Science
- FOOD*2150 [0.50] Introduction to Nutritional and Food Science
- NUTR*2150 [0.50] Introduction to Nutritional and Food Sciences

One of:

- FOOD*4090 [0.50] Functional Foods and Nutraceuticals
- NUTR*4090 [0.50] Functional Foods and Nutraceuticals

*restricted electives should be chosen in consultation with the Nutritional and Nutraceutical Sciences faculty advisor. Any 3000 and 4000 level courses from the following subject areas are eligible as restricted electives: Nutrition**, Food Science**, Biomedical Sciences**, Toxicology, Population Medicine, Animal Science, Plant Biology, Human Kinetics**, and Pathology.
**students in these majors must select restricted electives outside of the major

Genetics (GEN)

Department of Molecular and Cellular Biology, College of Biological Science.

Minor (Honours Program)

A minor in Genetics requires 5.00 credits in Molecular Biology and Genetics chosen in consultation with the faculty advisor, and will include:

- MBG*2000 [0.50] Introductory Genetics
- MBG*2020 [0.50] Introductory Molecular Biology

4.00 credits from:

- MBG*3000 [0.50] Population Genetics
- MBG*3050 [0.50] Human Genetics
- MBG*3060 [0.50] Quantitative Genetics
- MBG*3070 [0.50] Bacterial Genetics
- MBG*3080 [0.50] Bacterial Genetics
- MBG*3200 [0.50] Genetics: Our Uncertain Heritage
- MBG*4030 [0.50] Animal Breeding Methods
- MBG*4040 [0.50] Genetics and Molecular Biology of Development
- MBG*4070 [0.50] Genetics and Molecular Biology of Development
- MBG*4080 [0.50] Molecular Genetics
- MBG*4160 [0.50] Plant Breeding
- MBG*4200 [0.50] Transmission Genetics
- MBG*4240 [0.50] Applied Molecular Genetics
- MBG*4270 [0.50] DNA Replication, Recombination and Repair
- MBG*4350 [0.50] Structural Molecular Biology
- MBG*4620 [0.50] Molecular Cytogenetics

Geographic Information Systems (GIS) and Environmental Analysis

Department of Geography, College of Social and Applied Human Sciences.

Minor (Honours Program)

A minimum of 5.00 credits is required from:

- GEOG*1300 [0.50] Introduction to the Biophysical Environment
- GEOG*2420 [0.50] Aerial-photo Interpretation
- GEOG*2480 [0.50] Mapping and GIS
- GEOG*3210 [0.50] Management of the Biophysical Environment
- GEOG*3420 [0.50] Remote Sensing of the Environment
- GEOG*3480 [0.50] GIS and Spatial Analysis
- GEOG*4480 [0.50] Applied Geographic Information Systems

One of:

- GEOG*2000 [0.50] Geomorphology
- GEOG*2110 [0.50] Climate and the Biophysical Environment

One of:

- GEOG*3110 [0.50] Biotic and Natural Resources
- GEOG*3610 [0.50] Environmental Hydrology
- GEOG*3620 [0.50] Desert Environments

And one of:

- GEOG*4110 [0.50] Environmental Systems Analysis
- GEOG*4210 [0.50] Environmental Resource Analysis

[Note: GEOG*3110 or GEOG*3610 is required as prerequisite for GEOG*4110]

Geology (GEOL)

Department of Land Resource Science, Ontario Agricultural College.

Minor (Honours Program)

A minor will consist of at least 5.00 credits in Geology. The following 7 courses are mandatory:

- GEOL*1050 [0.50] Geology and the Environment
- GEOL*2020 [0.50] Stratigraphy
- GEOL*2110 [0.50] Earth Material Science
- GEOL*2150 0.75 Glacial Geology
- GEOL*3090 [0.50] Applied Structural Geology
- GEOL*3120 [0.50] Paleontology
- GEOL*4090 [0.50] Sedimentology

The remaining credits can be chosen from Geology or the Geomorphology offerings in Geography in the calendar and must be 2000 level or above.

Human Kinetics (HK)

Department of Human Health and Nutritional Sciences, College of Biological Science.

Human Kinetics is concerned with understanding capacities for, and limits of, human movement at different ages and with the role of physical activity in human health. Through the use of electives, students may structure a program emphasizing biomechanics and ergonomics, human population biology or nutrition, exercise and metabolism.

If lacking the fundamentals of word processing, spread sheet use and data management, the student should select CIS*1200 as early in the program as possible.

**Major (Honours Program)**

Students may enter this major in Semester 1 or any semester thereafter. A student wishing to declare the major must consult the Faculty Advisor. A minimum of 20.00 credits is required.

**Semester 1**

- BIOL*1030 [0.50] Biology I
- CHEM*1040 [0.50] General Chemistry I
- MATH*1080 [0.50] Elements of Calculus I
- PHYS*1070 [0.50] Introductory Physics for Life Sciences

Students who are admitted deficient in one OAC/4U course in Biology, Chemistry or Physics must take the equivalent introductory course in first semester. The first-year science core in that subject should be completed by Semester 3.

**Semester 2**

- BIOL*1040 [0.50] Biology II
- CHEM*1050 [0.50] General Chemistry II
- PHYS*1080 [0.50] Physics for Life Sciences

**Semester 3**

- BIOL*2210 [0.50] Introductory Cell Biology
- BIOL*2580 [0.50] Introductory Biochemistry
- MBG*2000 [0.50] Introductory Genetics

**Semester 4**

- HK*3270 [0.50] Developmental Biology
- MBG*2020 [0.50] Introductory Molecular Biology
- NSP*3210 [0.50] Fundamentals of Nutrition
- ZOO*2100 [0.50] Developmental Biology

**Semester 5**

- HK*3300 [0.75] Human Anatomy
- HK*3600 [0.75] Applied Human Biology
- HK*3940 [1.25] Human Physiology

**Semester 6**

- BIOL*3560 [0.50] Structure and Function in Biochemistry
- HK*3402 [0.75] Human Anatomy
- STAT*2040 [0.50] Statistics I
- 0.50 electives or restricted electives

**Semester 7**

If desired, electives or restricted electives up to a maximum of 2.75 total credits.

**Semester 8**

If desired, electives or restricted electives up to a maximum of 2.75 total credits.

**Note:** Students are required to complete 16.00 credits in acceptable science courses.

**Restricted Electives**

Students must complete 2.00 credits from Arts or Social Science courses with the recommendation that 0.50 of the 2.00 credits be in philosophy. A minimum of 2.00 credits of restricted electives is required. They are to be selected from HK*3100, HK*4XXX, NUTR*4090, NUTR*4210.

**Marine and Freshwater Biology (MBF)**

Department of Integrative Biology, College of Biological Science.

The Major in Marine and Freshwater Biology provides a broad ecological perspective on aquatic environments based on the physical as well as the biological sciences. This major prepares students for post-graduate work in the aquatic sciences, and provides a sound science background for students wishing to pursue careers in teaching, government service or the private sector.

**Major (Honours Program)**

Students may enter this major in Semester 1 or any semester thereafter. A student wishing to declare the major must consult the Faculty Advisor. A minimum total of 20.00 credits is required to complete the major.

**Semester 1**

- BIOL*1030 [0.50] Biology I
- CHEM*1040 [0.50] General Chemistry I
- MATH*1080 [0.50] Elements of Calculus I
- PHYS*1070 [0.50] Introductory Physics for Life Sciences

**Semester 2**

- BIOL*1040 [0.50] Biology II
- CHEM*1050 [0.50] General Chemistry II
### Semester 1

<table>
<thead>
<tr>
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<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BIOL*1030</td>
<td>Biology I</td>
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<td>CHEM*1040</td>
<td>General Chemistry</td>
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<tr>
<td>CIS*1500</td>
<td>Introduction to Programming</td>
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<tr>
<td>MATH*1200</td>
<td>Calculus I</td>
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</tr>
<tr>
<td>PHYS*1000</td>
<td>An Introduction to Mechanics</td>
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Students who are admitted deficient in one OAC/4U course in Biology, Chemistry or Physics must take the equivalent introductory course in first semester. The first-year science core in that subject should be completed by Semester 3.

### Semester 2

<table>
<thead>
<tr>
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<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BIOL*1040</td>
<td>Biology II</td>
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<td>CHEM*1050</td>
<td>General Chemistry II</td>
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<tr>
<td>MATH*1210</td>
<td>Calculus II</td>
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<tr>
<td>PHYS*1010</td>
<td>Introductory Electricity and Magnetism</td>
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0.50 elective (CIS*2500 recommended)

### Semester 3

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<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
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<td>MATH*2000</td>
<td>Set Theory</td>
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<tr>
<td>MATH*2160</td>
<td>Linear Algebra I</td>
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<tr>
<td>MATH*2200</td>
<td>Advanced Calculus I</td>
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1.00 elective (CIS*2500 recommended if not taken earlier)

### Semester 4

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<tr>
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<td>MATH*2130</td>
<td>Numerical Methods</td>
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<tr>
<td>MATH*2170</td>
<td>Differential Equations I</td>
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<tr>
<td>MATH*2210</td>
<td>Advanced Calculus II</td>
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### Semester 5

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<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>MATH*3130</td>
<td>Algebraic Structures</td>
<td>[0.50]</td>
</tr>
<tr>
<td>MATH*3240</td>
<td>Operations Research</td>
<td>[0.50]</td>
</tr>
<tr>
<td>STAT*3100</td>
<td>Introductory Mathematical Statistics I</td>
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<tr>
<td>STAT*3240</td>
<td>Applied Regression Analysis</td>
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### Semester 6

<table>
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<tr>
<td>MATH*3260</td>
<td>Complex Analysis</td>
<td>[0.50]</td>
</tr>
</tbody>
</table>

0.50 credit from a 3000 level statistics
0.50 credit from a 3000 or 4000 level mathematics

1.00 elective

### Semester 7

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH*3130</td>
<td>Algebraic Structures</td>
<td>[0.50]</td>
</tr>
<tr>
<td>MATH*3240</td>
<td>Operations Research</td>
<td>[0.50]</td>
</tr>
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</table>

One of:

- MATH*3130
- MATH*3240

### Semester 8

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>MATH*4110</td>
<td>Mathematical Methods</td>
<td>[0.75]</td>
</tr>
<tr>
<td>MATH*4300</td>
<td>Marine Biology and Oceanography</td>
<td>[0.75]</td>
</tr>
<tr>
<td>ZOO*4410</td>
<td>Field Ecology</td>
<td>[0.75]</td>
</tr>
<tr>
<td>ZOO*4490</td>
<td>Teaching in Zoology</td>
<td>[0.75]</td>
</tr>
<tr>
<td>ZOO*4500</td>
<td>Research Problems in Zoology I</td>
<td>[0.75]</td>
</tr>
<tr>
<td>ZOO*4510</td>
<td>Research Problems in Zoology II</td>
<td>[0.75]</td>
</tr>
<tr>
<td>ZOO*4520</td>
<td>Marine and Freshwater Research</td>
<td>[0.50]</td>
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<tr>
<td>ZOO*4540</td>
<td>Tropical Ecology</td>
<td>[0.75]</td>
</tr>
<tr>
<td>ZOO*4610</td>
<td>Arctic Ecology</td>
<td>[0.75]</td>
</tr>
<tr>
<td>ZOO*4700</td>
<td>Field Biology</td>
<td>[0.50]</td>
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<tr>
<td>ZOO*4710</td>
<td>Field Biology</td>
<td>[0.25]</td>
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<tr>
<td>ZOO*4800</td>
<td>Field Biology</td>
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<tr>
<td>ZOO*4810</td>
<td>Field Biology</td>
<td>[0.25]</td>
</tr>
</tbody>
</table>

1.00 credit from a 4000 level mathematics

0.50 elective

- MATH*3130
- MATH*3240

One of:

- MATH*3130
- MATH*3240

### Electives - Must Include:

1. A minimum of 1.00 credits from:
   - BIOL*4110  [0.75]  Ecological Methods
   - ZOO*4300  [0.75]  Marine Biology and Oceanography
   - ZOO*4410  [0.75]  Field Ecology
   - ZOO*4490  [0.75]  Teaching in Zoology
   - ZOO*4500  [0.75]  Research Problems in Zoology I
   - ZOO*4510  [0.75]  Research Problems in Zoology II
   - ZOO*4520  [0.50]  Marine and Freshwater Research
   - ZOO*4540  [0.50]  Tropical Ecology
   - ZOO*4610  [0.50]  Arctic Ecology
   - ZOO*4700  [0.50]  Field Biology
   - ZOO*4710  [0.25]  Field Biology
   - ZOO*4800  [0.50]  Field Biology
   - ZOO*4810  [0.25]  Field Biology

2. At least 1.00 Arts and/or Social Science elective.

### Mathematical Science (MSCI)

#### Department of Mathematics & Statistics, College of Physical and Engineering Science.

#### Minor (Honours Program)

This requires 1.00 calculus credit and 4.00 other credits chosen from mathematics, statistics, and computing and information science. For these 4.00 credits students will choose at least 0.50 from each discipline. At least 1.00 credits must be at the 3000 level or above. This minor cannot be combined with a major in Mathematics, Statistics, or Computing and Information Science.

### Mathematics (MATH)

#### Department of Mathematics and Statistics, College of Physical and Engineering Science.

#### Major (Honours Program)

Students may enter this major in Semester 1 or any semester thereafter. A student wishing to declare the major must consult the Faculty Advisor. A total of 20.00 credits is required to complete the Major which includes at least 10.00 credits in Mathematics & Statistics, 2.00 of which must be at the 4000 level. At least 1.00 credit in Arts and Social Science must be completed.

### Microbiology (MICR)

#### Department of Molecular and Cellular Biology, College of Biological Science
Microbiology programs are designed to give students a good understanding of microorganisms, including diversity, ecology, physiology, molecular genetics, current approaches in bacterial genomics/proteomics, and microbial associations with animal hosts and the environments. Such knowledge will provide the basis for further work with microbes in medicine, agricultural industries (including biotechnology, pharmaceuticals, food and beverage) and the environment (surveillance and bioremediation).

Students can take the B.Sc. program with a Major or a Minor in Microbiology, or combine the minor with another major. Students should plan their programs in consultation with the microbiology faculty advisor. As course offerings may change during the program, students are strongly encouraged to review their plans at least once a year with their advisors, and to check the departmental website for program news.

**Major (Honours Program)**

Students may enter this major in Semester 1 or any semester thereafter. A student wishing to declare the major must consult the Faculty Advisor. A total of 20.00 credits is required to complete the major.

### Semester 1

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BIOL*1030</td>
<td>Biology I</td>
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<tr>
<td>CHEM*1040</td>
<td>General Chemistry I</td>
<td>0.50</td>
</tr>
<tr>
<td>MATH*1080</td>
<td>Elements of Calculus I</td>
<td>0.50</td>
</tr>
<tr>
<td>PHYS*1070</td>
<td>Introductory Physics for Life Sciences</td>
<td>0.50</td>
</tr>
</tbody>
</table>

0.50 elective

Students who are admitted deficient in one OAC/4U course in Biology, Chemistry or Physics must take the equivalent introductory course in first semester. The first-year science core in that subject should be completed by Semester 3.

### Semester 2

<table>
<thead>
<tr>
<th>Code</th>
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<tbody>
<tr>
<td>BIOL*1040</td>
<td>Biology II</td>
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</tr>
<tr>
<td>CHEM*1050</td>
<td>General Chemistry II</td>
<td>0.50</td>
</tr>
<tr>
<td>PHYS*1080</td>
<td>Physics for Life Sciences</td>
<td>0.50</td>
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0.50 elective

One mathematics/computer course from:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CIS*1200</td>
<td>Introduction to Computing</td>
<td>0.50</td>
</tr>
<tr>
<td>CIS*1500</td>
<td>Introduction to Programming</td>
<td>0.50</td>
</tr>
<tr>
<td>MATH*2080</td>
<td>Elements of Calculus II</td>
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### Semester 3

<table>
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<tr>
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<th>Credits</th>
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<tbody>
<tr>
<td>BIOC*2550</td>
<td>Introductory Biochemistry</td>
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<tr>
<td>MBG*2000</td>
<td>Introductory Genetics</td>
<td>0.50</td>
</tr>
<tr>
<td>MICR*2020</td>
<td>Microbial Interactions and Associations</td>
<td>0.50</td>
</tr>
<tr>
<td>STAT*2040</td>
<td>Statistics I</td>
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0.50 elective

### Semester 4

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<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BIOC*2210</td>
<td>Introductory Cell Biology</td>
<td>0.50</td>
</tr>
<tr>
<td>MBG*2020</td>
<td>Introductory Molecular Biology</td>
<td>0.50</td>
</tr>
<tr>
<td>MICR*2030</td>
<td>Microbial Growth</td>
<td>0.50</td>
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1.00 elective

### Semester 5

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<th>Code</th>
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<tbody>
<tr>
<td>BIOC*3560</td>
<td>Structure and Function in Biochemistry</td>
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<tr>
<td>MICR*3120</td>
<td>Systematic Bacteriology</td>
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<tr>
<td>MICR*3230</td>
<td>Immunology I</td>
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0.50 elective

One of:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>MBG*3070</td>
<td>Bacterial Genetics</td>
<td>0.50</td>
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<tr>
<td>MBG*3080</td>
<td>Bacterial Genetics</td>
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### Semester 6

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<tr>
<td>BIOC*3500</td>
<td>Mycology I</td>
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<tr>
<td>MICR*3110</td>
<td>Techniques in Microbiology</td>
<td>0.50</td>
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<tr>
<td>MICR*3260</td>
<td>Microbial Adaptation and Development</td>
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1.00 elective

### Semester 7

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<tbody>
<tr>
<td>MICR*4120</td>
<td>Virology</td>
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2.00 electives or restricted electives which can include MICR*4310.

### Semester 8

<table>
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<th>Code</th>
<th>Title</th>
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<tbody>
<tr>
<td>MICR*4290</td>
<td>Microbial Ecology</td>
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</table>

2.00 electives or restricted electives which can include MICR*4320

**Restricted Electives**

Of the 8.00 elective credits throughout the program, at least 2.00 must be from the Arts and Social Sciences. For the Major program, 1.50 must be selected from the list below and at least 2.50 must be from the list of approved science electives. (See exception for students taking a minor in an Arts or Social Science subject.) Students in the major program should ensure that at least 1.00 of the electives are 4000 level science courses.

<table>
<thead>
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<th>Code</th>
<th>Title</th>
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<tr>
<td>BIOC*4050</td>
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<td>BIOC*4540</td>
<td>Enzymology</td>
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<td>BIOC*4580</td>
<td>Membrane Biochemistry</td>
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<tr>
<td>FOOD*3230</td>
<td>Food Microbiology</td>
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<tr>
<td>FOOD*3260</td>
<td>Industrial Microbiology</td>
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<tr>
<td>MICR*3220</td>
<td>Plant Microbiology</td>
<td>0.50</td>
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<tr>
<td>MICR*4010</td>
<td>Pathogenic Bacteriology</td>
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<td>MICR*4230</td>
<td>Immunology II</td>
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<tr>
<td>MICR*4240</td>
<td>Topics in Microbiology</td>
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<tr>
<td>MICR*4260</td>
<td>Microbial Technology</td>
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<td>MICR*4270</td>
<td>Microbial Design</td>
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<tr>
<td>MICR*4310</td>
<td>Research Project I</td>
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<tr>
<td>MICR*4320</td>
<td>Research Project II</td>
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<td>MICR*4430</td>
<td>Medical Virology</td>
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<tr>
<td>MICR*4140</td>
<td>Soil Microbiology and Biotechnology</td>
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<tr>
<td>MICR*4180</td>
<td>Microbial Processes in Environmental Management</td>
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</table>

**Minor (Honours Program)**

The minor in Microbiology consists of the following 5.00 credits:

2.00 credits including all of:

<table>
<thead>
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<th>Credits</th>
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<tbody>
<tr>
<td>BIOC*2580</td>
<td>Introductory Biochemistry</td>
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<td>MICR*2020</td>
<td>Microbial Interactions and Associations</td>
<td>0.50</td>
</tr>
<tr>
<td>MICR*2030</td>
<td>Microbial Growth</td>
<td>0.50</td>
</tr>
<tr>
<td>MICR*3110</td>
<td>Techniques in Microbiology</td>
<td>0.50</td>
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</table>

2.00 credits from:

<table>
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<th>Credits</th>
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<tbody>
<tr>
<td>BIOL*3050</td>
<td>Mycology I</td>
<td>0.50</td>
</tr>
<tr>
<td>FOOD*3230</td>
<td>Food Microbiology</td>
<td>0.75</td>
</tr>
<tr>
<td>FOOD*3260</td>
<td>Industrial Microbiology</td>
<td>0.50</td>
</tr>
<tr>
<td>MICR*3120</td>
<td>Systematic Bacteriology</td>
<td>0.50</td>
</tr>
<tr>
<td>MICR*3220</td>
<td>Plant Microbiology</td>
<td>0.50</td>
</tr>
<tr>
<td>MICR*3230</td>
<td>Immunology I</td>
<td>0.50</td>
</tr>
<tr>
<td>MICR*3260</td>
<td>Microbial Adaptation and Development</td>
<td>0.50</td>
</tr>
<tr>
<td>MICR*4140</td>
<td>Soil Microbiology and Biotechnology</td>
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</tr>
<tr>
<td>MICR*4180</td>
<td>Microbial Processes in Environmental Management</td>
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</table>

One of:

<table>
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<tbody>
<tr>
<td>MBG*3070</td>
<td>Bacterial Genetics</td>
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<tr>
<td>MBG*3080</td>
<td>Bacterial Genetics</td>
<td>0.50</td>
</tr>
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</table>

1.00 credits from:

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<tbody>
<tr>
<td>BIOL*4050</td>
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<td>MICR*4010</td>
<td>Pathogenic Bacteriology</td>
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</tr>
<tr>
<td>MICR*4120</td>
<td>Virology</td>
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</tr>
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<td>MICR*4230</td>
<td>Immunology II</td>
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</tr>
<tr>
<td>MICR*4260</td>
<td>Microbial Technology</td>
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</tr>
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<td>MICR*4270</td>
<td>Microbial Design</td>
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</tr>
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<td>MICR*4290</td>
<td>Microbial Ecology</td>
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</tr>
<tr>
<td>MICR*4430</td>
<td>Medical Virology</td>
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</tr>
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</table>

**Microbiology (Co-op) (MICR:C)**

Department of Molecular and Cellular Biology, College of Biological Science

**Major (Honours Program)**

Students in the Major in Microbiology program may take the Co-op option. Students do not begin their first work term until they have completed semester 3 and courses BIOL*1030, BIOL*1040 and MICR*2030. Students in the co-op program must also complete COOP*1100 in the second academic semester. At least 3 work terms (COOP*1000, COOP*2000, COOP*3000) are required in the co-op program, and the course requirements are the same as shown for the major program. Some courses must be taken during a different semester than usual, and Co-op students may require an additional semester to meet all the program requirements. Students should plan their programs in consultation with the faculty advisor. Two schedules are printed below and detailed course selections are available from the Co-op advisor.

<table>
<thead>
<tr>
<th>Semester</th>
<th>Stream A</th>
<th>Stream B</th>
</tr>
</thead>
<tbody>
<tr>
<td>F</td>
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<td>1</td>
</tr>
<tr>
<td>W</td>
<td>2</td>
<td>2</td>
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<td>Off</td>
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<tr>
<td>F</td>
<td>3</td>
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<tr>
<td>W</td>
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<td>8</td>
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Last Revision: October 18, 2005

2005-2006 University of Guelph Undergraduate Calendar
Molecular Biology and Genetics (MBG)

Department of Molecular and Cellular Biology, College of Biological Science

The B.Sc. program in Molecular Biology and Genetics is a broadly based program in genetics including related areas of cell and molecular biology. In consultation with the departmental advisor, students can choose a general program or can focus their courses in areas such as molecular biology, cell biology, developmental biology, genetics, or agricultural genetics. The program qualifies students for postgraduate training in cell or molecular biology and genetics including clinical genetics and genetic counselling, and provides an excellent background for careers in biotechnology, toxicology, agriculture and medical research. Students may enter this major in Semester 1 or any semester thereafter. A student wishing to declare the major must consult the Faculty Advisor.

Major (Honours Program)

A total of 20.00 credits is required to complete the major.

Semester 1

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Description</th>
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<tbody>
<tr>
<td>BIOL*1030</td>
<td>0.50</td>
<td>Biology I</td>
</tr>
<tr>
<td>CHEM*1040</td>
<td>0.50</td>
<td>General Chemistry I</td>
</tr>
</tbody>
</table>

0.50 elective or restricted elective

One of:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>PHYS*1000</td>
<td>0.50</td>
<td>An Introduction to Mechanics</td>
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<tr>
<td>PHYS*1070</td>
<td>0.50</td>
<td>Introductory Physics for Life Sciences</td>
</tr>
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</table>

One of:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>MATH*1080</td>
<td>0.50</td>
<td>Elements of Calculus I</td>
</tr>
<tr>
<td>MATH*1200</td>
<td>0.50</td>
<td>Calculus I</td>
</tr>
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</table>

Students who are admitted deficient in one OAC/4U course in Biology, Chemistry or Physics must take the equivalent introductory course in first semester. The first-year science core in that subject should be completed by Semester 3.

Semester 2

<table>
<thead>
<tr>
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<tr>
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<td>CHEM*1050</td>
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<td>General Chemistry II</td>
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0.50 elective or restricted elective

One of:

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<thead>
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<tbody>
<tr>
<td>CIS*1200</td>
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<td>Introduction to Computing</td>
</tr>
<tr>
<td>CIS*1500</td>
<td>0.50</td>
<td>Introduction to Programming</td>
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One of:

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<tbody>
<tr>
<td>PHYS*1010</td>
<td>0.50</td>
<td>Introductory Electricity and Magnetism</td>
</tr>
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<td>PHYS*1080</td>
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<td>Physics for Life Sciences</td>
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Semester 3

<table>
<thead>
<tr>
<th>Course</th>
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<th>Description</th>
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<tbody>
<tr>
<td>BIOL*2210</td>
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<td>Introductory Cell Biology</td>
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<td>BIOC*2580</td>
<td>0.50</td>
<td>Introductory Biochemistry</td>
</tr>
<tr>
<td>MBG*2000</td>
<td>0.50</td>
<td>Introductory Genetics</td>
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<td>STAT*2040</td>
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0.50 elective or restricted elective

Semester 4

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<td>MBG*2020</td>
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<td>Introductory Molecular Biology</td>
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<tr>
<td>MICR*2030</td>
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<td>Microbial Growth</td>
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<td>STAT*2050</td>
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<td>Statistics II</td>
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1.00 elective or restricted elective

Semester 5

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<tbody>
<tr>
<td>MBG*3350</td>
<td>0.75</td>
<td>Laboratory Methods in Molecular Biology I</td>
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</table>

1.75 electives or restricted electives

Semester 6

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Semester 7*

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<th>Description</th>
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<tbody>
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<td>MBG*4500</td>
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</table>

1.50 electives or restricted electives

Semester 8*

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<tr>
<th>Course</th>
<th>Credits</th>
<th>Description</th>
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<tbody>
<tr>
<td>MBG*4510</td>
<td>1.00</td>
<td>Research Project in Molecular Biology and Genetics II</td>
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1.50 electives or restricted electives

*instead of the 2 semester sequence of MBG*4500 / MBG*4510 students may choose to take MBG*4600 and 1.50 subject area electives

Notes: Students are reminded that AT LEAST 2.00 credits must be at the 4000 level in order to complete the major.

Restricted Electives

1. Ecology Elective - 0.50 credit
<table>
<thead>
<tr>
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<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL*2060</td>
<td>0.50</td>
<td>Ecology</td>
</tr>
<tr>
<td>BIOL*3110</td>
<td>0.50</td>
<td>Population Ecology</td>
</tr>
<tr>
<td>BOT*2050</td>
<td>0.50</td>
<td>Plant Ecology</td>
</tr>
<tr>
<td>MICR*4290</td>
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<td>Microbial Ecology</td>
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</table>

2. Arts and Social Science Electives - 2.00 credits
<table>
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<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOM*3100</td>
<td>0.50</td>
<td>Mammalian Physiology I</td>
</tr>
<tr>
<td>BOT*3310</td>
<td>0.50</td>
<td>Plant Physiology</td>
</tr>
</tbody>
</table>

3. 1.75 electives or restricted electives

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MBG*3350</td>
<td>0.75</td>
<td>Laboratory Methods in Molecular Biology II</td>
</tr>
</tbody>
</table>

   *instead of the 2 semester sequence of MBG*4500 / MBG*4510 students may choose to take MBG*4600 and 1.50 subject area electives

4. Subject Area Electives - 3.00 credits (4.50 if MBG*4600 is taken instead of MBG*4500 and MBG*4510)

<table>
<thead>
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<td>MBG*3000</td>
<td>0.50</td>
<td>Population Genetics</td>
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<td>MBG*3050</td>
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<td>Human Genetics</td>
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<tr>
<td>MBG*3060</td>
<td>0.50</td>
<td>Quantitative Genetics</td>
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<tr>
<td>MBG*3200</td>
<td>0.50</td>
<td>Genetics: Our Uncertain Heritage</td>
</tr>
<tr>
<td>MBG*3360</td>
<td>0.75</td>
<td>Laboratory Methods in Molecular Biology II</td>
</tr>
<tr>
<td>MBG*3600</td>
<td>0.25</td>
<td>Introduction to Genomics</td>
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<tr>
<td>MBG*4030</td>
<td>0.50</td>
<td>Animal Breeding Methods</td>
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<tr>
<td>MBG*4080</td>
<td>0.50</td>
<td>Molecular Genetics</td>
</tr>
<tr>
<td>MBG*4160</td>
<td>0.50</td>
<td>Plant Breeding</td>
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<td>MBG*4200</td>
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<td>Transmission Genetics</td>
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<td>MBG*4240</td>
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<td>Applied Molecular Genetics</td>
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<tr>
<td>MBG*4270</td>
<td>0.50</td>
<td>DNA Replication, Recombination and Repair</td>
</tr>
<tr>
<td>MBG*4350</td>
<td>0.50</td>
<td>Structural Molecular Biology</td>
</tr>
<tr>
<td>MBG*4620</td>
<td>0.50</td>
<td>Molecular Cytogenetics</td>
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</table>

   Students who are admitted deficient in one OAC/4U course in Biology, Chemistry or Physics must take the equivalent introductory course in first semester. The first-year science core in that subject should be completed by Semester 3.

5. Science Electives - 0.50 credit

<table>
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<th>Credits</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>BIOC*3560</td>
<td>0.50</td>
<td>Structure and Function in Biochemistry</td>
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<tr>
<td>MICR*3230</td>
<td>0.50</td>
<td>Immunology I</td>
</tr>
<tr>
<td>MICR*4120</td>
<td>0.50</td>
<td>Virology</td>
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Neuroscience (NEUR)

Department of Human Health and Nutritional Sciences, College of Biological Science.

Minor (Honours Program)

A minor in Neuroscience shall include a minimum of 5.00 credits including:

<table>
<thead>
<tr>
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<th>Credits</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>BIOM*3000</td>
<td>0.50</td>
<td>Mammalian Neuroanatomy</td>
</tr>
<tr>
<td>CIS*1500</td>
<td>0.50</td>
<td>Introduction to Programming</td>
</tr>
<tr>
<td>PHYS*2030</td>
<td>0.50</td>
<td>Biophysics of Excitable Cells</td>
</tr>
<tr>
<td>PSYC*2410</td>
<td>0.50</td>
<td>Behavioural Neuroscience I</td>
</tr>
<tr>
<td>ZOO*2100</td>
<td>0.50</td>
<td>Developmental Biology</td>
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</table>

and at least 0.50 from:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOM*3100</td>
<td>0.50</td>
<td>Mammalian Physiology I</td>
</tr>
<tr>
<td>HK*3940</td>
<td>1.25</td>
<td>Human Physiology</td>
</tr>
<tr>
<td>ZOO*3200</td>
<td>0.50</td>
<td>Comparative Animal Physiology I</td>
</tr>
<tr>
<td>ZOO*3210</td>
<td>0.50</td>
<td>Comparative Animal Physiology II</td>
</tr>
<tr>
<td>PSYC*3030</td>
<td>0.50</td>
<td>Neuropsychological Basis of Behaviour</td>
</tr>
<tr>
<td>PSYC*3140</td>
<td>0.50</td>
<td>Behavioural Neuroscience II</td>
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</tbody>
</table>

and 1.00 from an independent study project in the neurosciences, selected from a combination of:

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<th>Description</th>
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<td>BIOM*4510</td>
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<td>Research in Biomedical Sciences I</td>
</tr>
<tr>
<td>BIOM*4521/2</td>
<td>1.00</td>
<td>Research in Biomedical Sciences II</td>
</tr>
<tr>
<td>HK*4230</td>
<td>0.50</td>
<td>Advanced Study in Human Biology and Nutritional Sciences</td>
</tr>
<tr>
<td>HK*4360</td>
<td>1.00</td>
<td>Research in Human Biology and Nutritional Sciences</td>
</tr>
<tr>
<td>HK*4371/2</td>
<td>1.00</td>
<td>Research in Human Biology and Nutritional Sciences II</td>
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<tr>
<td>ZOO*4500</td>
<td>0.75</td>
<td>Research Problems in Zoology I</td>
</tr>
<tr>
<td>HK*4390</td>
<td>1.00</td>
<td>Research Problems in Zoology II</td>
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and 1.00 from:

<table>
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<tr>
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<th>Credits</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>BIOM*3090</td>
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<td>Principles of Pharmacology and Toxicology</td>
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<tr>
<td>HK*3100</td>
<td>0.50</td>
<td>Neuromuscular Physiology</td>
</tr>
<tr>
<td>NUTR*3210</td>
<td>0.50</td>
<td>Fundamentals of Nutrition</td>
</tr>
<tr>
<td>PATH*3610</td>
<td>0.50</td>
<td>Principles of Disease</td>
</tr>
<tr>
<td>PSYC*3230</td>
<td>0.50</td>
<td>Principles of Sensation and Perception</td>
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<tr>
<td>PSYC*3240</td>
<td>0.50</td>
<td>Neurochemical Basis of Behaviour</td>
</tr>
<tr>
<td>PSYC*3410</td>
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<td>Behavioural Neuroscience II</td>
</tr>
<tr>
<td>ZOO*4470</td>
<td>0.50</td>
<td>Comparative Endocrinology</td>
</tr>
</tbody>
</table>

Nutritional and Nutraceutical Sciences (NANS)

Department of Human Health and Nutritional Sciences, College of Biological Science.

The Nutritional and Nutraceutical Sciences major is concerned with understanding the contribution of food, beverage and nutritional supplement consumption to growth, development of optimal biological function, maintenance of health, and treatment of disease.

If lacking the fundamentals of word processing, spread sheet use and data management, the student should select CIS*1200 as early in the program as possible.

Major (Honours Program)

Students may enter this major in Semester 1 or any semester thereafter. A student wishing to declare the major must consult the Faculty Advisor. A total of 20.00 credits is required, including 2.00 credits from Arts and Social Sciences courses.
Semester 1

- BIOL*1030 [0.50] Biology I
- CHEM*1040 [0.50] General Chemistry I
- MATH*1080 [0.50] Elements of Calculus I
- PHYS*1070 [0.50] Introductory Physics for Life Sciences

0.50 elective or restricted elective

Students who are admitted deficient in one OAC/4U course in Biology, Chemistry or Physics must take the equivalent introductory course in first semester. The first-year science core in that subject should be completed by Semester 3.

Semester 2

- BIOL*1040 [0.50] Biology II
- CHEM*1050 [0.50] General Chemistry II
- PHYS*1080 [0.50] Physics for Life Sciences

1.00 elective or restricted elective

Semester 3

- BIOL*2210 [0.50] Introductory Cell Biology
- BIOL*2580 [0.50] Introductory Biochemistry
- MBG*2000 [0.50] Introductory Genetics

1.00 elective

Semester 4

- BIOL*3560 [0.50] Structure and Function in Biochemistry
- MBG*2020 [0.50] Introductory Molecular Biology
- NUTR*3210 [0.50] Fundamentals of Nutrition
- STAT*2040 [0.50] Statistics I

0.50 elective or restricted elective

Semester 5

- HK*3940 [1.25] Human Physiology
- NUTR*3330 [0.50] Micronutrients, Phytochemicals and Health
- NUTR*3390 [0.50] Applied Nutritional and Nutraceutical Sciences I

0.25 or 0.50 elective or restricted elective

Semester 6

- BIOM*3090 [0.50] Principles of Pharmacology and Toxicology
- NUTR*4090 [0.50] Functional Foods and Nutraceuticals
- NUTR*4330 [0.50] Applied Nutritional and Nutraceutical Sciences II
- PATH*3610 [0.50] Principles of Disease

0.50 electives or restricted electives

Semester 7

- NUTR*4210 [0.50] Nutrition, Exercise and Energy Metabolism
- NUTR*4510 [0.50] Toxicology, Nutrition and Food

1.50 electives or restricted electives

Semester 8

2.50 electives or restricted electives

Restricted Electives

Students must complete 2.00 credits from Arts and Social Sciences courses and 1.00 credits from among the following:

- HK*4410 [0.50] Research Concepts
- HK*4420 [0.50] Research Modules
- HK*4460 [0.50] Regulation of Human Metabolism
- NUTR*4200 [0.50] Nutrition and Immune Function
- NUTR*4320 [0.50] Nutrition and Metabolic Control of Disease
- NUTR*4360 [0.50] Current Issues in Nutrigenomics

Nutritional Sciences (NSCI)

Department of Human Health and Nutritional Sciences, College of Biological Science.

Minor (Honours Program)

A minor in Nutritional Sciences requires 5.00 credits as follows:

- BIOC*2580 [0.50] Introductory Biochemistry
- NUTR*3210 [0.50] Fundamentals of Nutrition
- NUTR*3330 [0.50] Micronutrients, Phytochemicals and Health
- STAT*2040 [0.50] Statistics I

At least 0.50 credits from:

- BIOM*3100 [0.50] Mammalian Physiology I
- HK*3940 [1.25] Human Physiology
- ZOO*3200 [0.50] Comparative Animal Physiology I

and 2.00 credits from:

- ANSC*4160 [0.25] Beef Cattle Nutrition
- ANSC*4170 [0.25] Dairy Cattle Nutrition
- ANSC*4180 [0.25] Poultry Nutrition
- ANSC*4190 [0.25] Swine Nutrition
- ANSC*4500 [0.25] Horse Nutrition
- ANSC*4510 [0.25] Pet Nutrition
- HK*4230 [0.50] Advanced Study in Human Biology and Nutritional Sciences

HK*4360 [1.00] Research in Human Biology and Nutritional Sciences
HK*4371/2 [1.00] Research in Human Biology and Nutritional Sciences II
NUTR*3340 [0.50] Nutrition of Fish and Crustacea
NUTR*3350 [0.50] Wildlife Nutrition
NUTR*3390 [0.50] Applied Nutritional and Nutraceutical Sciences I
NUTR*4090 [0.50] Functional Foods and Nutraceuticals
NUTR*4200 [0.50] Nutrition and Immune Function
NUTR*4210 [0.50] Nutrition, Exercise and Energy Metabolism
NUTR*4320 [0.50] Nutrition and Metabolic Control of Disease
NUTR*4360 [0.50] Current Issues in Nutrigenomics
NUTR*4510 [0.50] Toxicology, Nutrition and Food

Physical Science (PSCI)

College of Physical and Engineering Science.

Major (Honours Program)

Students may enter this major in Semester 1 or any semester thereafter. A student wishing to declare the major must consult the Faculty Advisor. This major will require the completion of 20.00 credits as indicated below:

1. Basic Science Core - 4.00 credits

1.00 - Biology (BIOL*1030, BIOL*1040)
1.00 - Chemistry (CHEM*1040, CHEM*1050)
1.00 - Physics [(PHYS*1000, PHYS*1010) or (PHYS*1070, PHYS*1080)]
1.00 - Mathematical Science [(MATH*1080, MATH*2080) or (MATH*1200, MATH*1210)]

2. Subject Area Core - 8.00 credits

0.50 (STAT*2040 or STAT*2100 )
0.50 (CIS*1200 or CIS*1500 )

7.00 physical science credits, including at least 4.00 credits at the 3000 or 4000 level of which 2.00 credits must be at the 4000 level.

3. Science Electives - 4.00 credits

4.00 science credits from the List of Approved Science Electives for B.Sc. Students*

4. Arts and Social Science Electives - 2.00

2.00 acceptable Arts or Social Science credits selected from the List of Approved B.Sc. Electives*

5. Free Electives - 2.00 credits

Note: the program must include a total of 6.00 science credits at the 3000 or 4000 level. Of these, at least 2.00 credits must be physical science at the 4000 level.

Semester 1

- BIOL*1030 [0.50] Biology I
- CHEM*1040 [0.50] General Chemistry I
- 0.50 Arts or Social Science elective

One of:
- PHYS*1000 [0.50] An Introduction to Mechanics
- PHYS*1070 [0.50] Introductory Physics for Life Sciences
- PHYS*1080 [0.50] Physics for Life Sciences

One of:
- MATH*1080 [0.50] Elements of Calculus I
- MATH*1200 [0.50] Calculus I

Students who are admitted deficient in one OAC/4U course in Biology, Chemistry or Physics must take the equivalent introductory course in first semester. The first-year science core in that subject should be completed by Semester 3.

Semester 2

- BIOL*1040 [0.50] Biology II
- CHEM*1050 [0.50] General Chemistry II
- 0.50 Arts or Social Science elective

One of:
- PHYS*1010 [0.50] Introductory Electricity and Magnetism
- PHYS*1080 [0.50] Physics for Life Sciences
- PHYS*1130 [0.50] Physics with Applications

One of:
- MATH*1210 [0.50] Calculus II
- MATH*2080 [0.50] Elements of Calculus II

Semester 3

1.50 science elective from the approved list of acceptable B.Sc. science electives*

0.50 elective

One of:
- CIS*1200 [0.50] Introduction to Computing
- CIS*1500 [0.50] Introduction to Programming

OR
- STAT*2040 [0.50] Statistics I

Semester 4

1.50 science elective from the approved list of B.Sc. science electives*

Last Revision: October 18, 2005
<table>
<thead>
<tr>
<th>Semester 5 to 8</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total of 2.50 credits per semester including at least 2.00 science electives.</td>
<td></td>
</tr>
<tr>
<td>Sufficient courses at the 3000 or 4000 level must be selected in Semesters 5 through 8 to total 6.00 credits in science at the 3000 or 4000 level with at least 2.00 physical science at the 4000 level.</td>
<td></td>
</tr>
<tr>
<td>*approved course lists are available in the Dean's Office, College of Physical and Engineering Science and on the world wide web at <a href="http://www.cpes.uoguelph.ca/BSc/approved_electives.htm">http://www.cpes.uoguelph.ca/BSc/approved_electives.htm</a></td>
<td></td>
</tr>
</tbody>
</table>

**Honours Physical Science (With a Minor)**

The requirements and schedules are the same as for Honours Physical Science. Available Minor subjects are listed at the beginning of the B.SC. Program section under the heading Honours Program Minors.

### Physics (PHYS)

**Department of Physics, College of Physical and Engineering Science.**

Students may enter this major in Semester 1 or any semester thereafter. A student wishing to declare the major must consult the Faculty Advisor. Since some of the required courses are not offered every semester, students entering the Major in Honours Physics should plan their program in consultation with the Department of Physics Faculty Advisor.

#### Major (Honours Program)

This major requires the completion of 21.25 credits. At least 1.00 of these credits must be obtained from the completion of Arts and/or Social Science courses.

**Semester 1**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL*1030</td>
<td>Biology I</td>
<td>0.50</td>
</tr>
<tr>
<td>CHEM*1040</td>
<td>General Chemistry I</td>
<td>0.50</td>
</tr>
<tr>
<td>CIS*1500</td>
<td>Introduction to Programming</td>
<td>0.50</td>
</tr>
<tr>
<td>MATH*1200</td>
<td>Calculus I</td>
<td>0.50</td>
</tr>
<tr>
<td>PHYS*1000</td>
<td>An Introduction to Mechanics</td>
<td>0.50</td>
</tr>
</tbody>
</table>

Students who are admitted deficient in one OAC/4U course in Biology, Chemistry or Physics must take the equivalent introductory course in first semester. The first-year physics core in that subject should be completed by Semester 3.

**Semester 2**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL*1040</td>
<td>Biology II</td>
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</tr>
<tr>
<td>CHEM*1050</td>
<td>General Chemistry II</td>
<td>0.50</td>
</tr>
<tr>
<td>MATH*1210</td>
<td>Calculus II</td>
<td>0.50</td>
</tr>
<tr>
<td>PHYS*1010</td>
<td>Introductory Electricity and Magnetism</td>
<td>0.50</td>
</tr>
</tbody>
</table>

* Students who have taken physics courses other than PHYS*1000 in Semester 1 and PHYS*1010 in Semester 2, may proceed to semester 3 with the permission of the Department of Physics

**Semester 3**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH*2160</td>
<td>Linear Algebra I</td>
<td>0.50</td>
</tr>
<tr>
<td>MATH*2200</td>
<td>Advanced Calculus I</td>
<td>0.50</td>
</tr>
<tr>
<td>PHYS*2440</td>
<td>Mechanics I</td>
<td>0.75</td>
</tr>
<tr>
<td>PHYS*2460</td>
<td>Electricity and Magnetism I</td>
<td>0.75</td>
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</table>

One of:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>STAT*2040</td>
<td>Statistics I</td>
<td>0.50</td>
</tr>
<tr>
<td>0.50 Arts elective</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.50 Social Science elective</td>
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<td></td>
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</table>

**Semester 4**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH*2170</td>
<td>Differential Equations I</td>
<td>0.50</td>
</tr>
<tr>
<td>PHYS*2260</td>
<td>Experimental Basis of Quantum Physics</td>
<td>0.50</td>
</tr>
<tr>
<td>PHYS*2450</td>
<td>Mechanics II</td>
<td>0.75</td>
</tr>
<tr>
<td>PHYS*2470</td>
<td>Electricity and Magnetism II</td>
<td>0.75</td>
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</table>

One of:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>STAT*2040</td>
<td>Statistics I</td>
<td>0.50</td>
</tr>
<tr>
<td>STAT*2120</td>
<td>Probability and Statistics for Engineers</td>
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**Semester 5**

<table>
<thead>
<tr>
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<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>MATH*3100</td>
<td>Differential Equations II</td>
<td>0.50</td>
</tr>
<tr>
<td>PHYS*3100</td>
<td>Electronics</td>
<td>0.75</td>
</tr>
<tr>
<td>PHYS*3230</td>
<td>Quantum Mechanics I</td>
<td>0.50</td>
</tr>
<tr>
<td>PHYS*3240</td>
<td>Statistical Physics I</td>
<td>0.50</td>
</tr>
</tbody>
</table>

One of:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH*2000</td>
<td>Set Theory</td>
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**Semester 6**

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<tr>
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<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>PHYS*3220</td>
<td>Waves and Optics</td>
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<tr>
<td>PHYS*3400</td>
<td>Advanced Mechanics</td>
<td>0.50</td>
</tr>
<tr>
<td>PHYS*3510</td>
<td>Intermediate Laboratory</td>
<td>0.50</td>
</tr>
<tr>
<td>PHYS*4040</td>
<td>Quantum Mechanics II</td>
<td>0.50</td>
</tr>
</tbody>
</table>

One of:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH*3170</td>
<td>Partial Differential Equations and Special Functions</td>
<td>0.50</td>
</tr>
<tr>
<td>MATH*3260</td>
<td>Complex Analysis</td>
<td>0.50</td>
</tr>
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**Semester 7**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>PHYS*4180</td>
<td>Advanced Electromagnetic Theory</td>
<td>0.50</td>
</tr>
<tr>
<td>PHYS*4500</td>
<td>Advanced Physics Laboratory</td>
<td>0.50</td>
</tr>
</tbody>
</table>

**Semester 8**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS*4510</td>
<td>Advanced Physics Project</td>
<td>0.50</td>
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</tbody>
</table>

**Minor (Honours Program)**

A minor in Physics requires 5.00 credits in physics courses including at least 1.00 at the 3000 or 4000 level.

The following four courses, with a weight of 0.75 each, are required:

- PHYS*2440 [0.75] Mechanics II
- PHYS*2450 [0.75] Mechanics II
- PHYS*2460 [0.75] Electricity and Magnetism I
- PHYS*2470 [0.75] Electricity and Magnetism II

The following courses are strongly recommended:

- PHYS*1000 [0.50] Linear Algebra I
- PHYS*1010 [0.50] Introductory Electricity and Magnetism

**Physics (Co-op) (PHYS:C)**

**Department of Physics, College of Physical and Engineering Science.**

Since some of the required courses are not offered every semester, students entering the Major in Physics (Co-op) should plan their program in consultation with the Department of Physics Faculty Advisor. To graduate from the Co-op program a minimum of 4 successfully completed work terms (COOP*1000, COOP*2000, COOP*3000, COOP*4000) is normally required.

#### Major (Honours Program)

This major requires the completion of 21.25 credits.

**Semester 1 - Fall**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL*1040</td>
<td>Biology II</td>
<td>0.50</td>
</tr>
<tr>
<td>CHEM*1050</td>
<td>General Chemistry II</td>
<td>0.50</td>
</tr>
<tr>
<td>MATH*1100</td>
<td>Introduction to Co-operative Education</td>
<td>0.00</td>
</tr>
<tr>
<td>MATH*1210</td>
<td>Calculus II</td>
<td>0.50</td>
</tr>
<tr>
<td>PHYS*1010</td>
<td>Introductory Electricity and Magnetism</td>
<td>0.50</td>
</tr>
</tbody>
</table>

**Semester 2**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS*2500</td>
<td>Intermediate Programming</td>
<td>0.50</td>
</tr>
</tbody>
</table>

**Semester 3 - Fall**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH*2160</td>
<td>Linear Algebra I</td>
<td>0.50</td>
</tr>
<tr>
<td>MATH*2200</td>
<td>Advanced Calculus I</td>
<td>0.50</td>
</tr>
</tbody>
</table>

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**X. Degree Programs, Bachelor of Science (B.Sc.)**

Last Revision: October 18, 2005
PHYS*2440 [0.75]  Mechanics I
PHYS*2460 [0.75]  Electricity and Magnetism I
One of:
  MATH*2000 [0.50]  Set Theory
  STAT*2040 [0.50]  Statistics I
0.50 Arts or Social Science elective*

Winter Semester
COOP*1000 [0.00]  Co-op Work Term I

Semester 4 - Summer
MATH*2170 [0.50]  Differential Equations I
PHYS*2260 [0.50]  Experimental Basis of Quantum Physics
PHYS*3240 [0.50]  Statistical Physics I
0.50 elective*
One of:
  CIS*2520 [0.50]  Data Structures
  0.50 elective*

PhD Semester
COOP*2000 [0.00]  Co-op Work Term II

Semester 5 - Winter
PHYS*2450 [0.75]  Mechanics II
PHYS*2470 [0.75]  Electricity and Magnetism II
PHYS*3220 [0.50]  Waves and Optics
0.50 elective
One of:
  STAT*2040 [0.50]  Statistics I
  STAT*2120 [0.50]  Probability and Statistics for Engineers
  MATH*3260 [0.50]  Complex Analysis
0.50 elective

Summer Semester
COOP*3000 [0.00]  Co-op Work Term III

Semester 6 - Fall +
MATH*3100 [0.50]  Differential Equations II
PHYS*3100 [0.75]  Electronics
PHYS*3320 [0.50]  Quantum Mechanics I
1.00 elective **

Semester 7 - Winter +
PHYS*3400 [0.50]  Advanced Mechanics
PHYS*3510 [0.50]  Intermediate Laboratory
PHYS*4040 [0.50]  Quantum Mechanics II
0.50 elective**
One of:
  MATH*3170 [0.50]  Partial Differential Equations and Special Functions
  0.50 elective**

Summer Semester
COOP*4000 [0.00]  Co-op Work Term IV

Semester 8 - Fall +
PHYS*4180 [0.50]  Advanced Electromagnetic Theory
PHYS*4240 or 0.50 elective
PHYS*4500 [0.50]  Advanced Physics Laboratory
1.00 elective**
* 1.00 must be taken as Arts or Social Science electives in this Major
+ and ** refer to the notes in the Major in Physics program

Electives**

The selection of electives is subject to the following rules:
1. A minimum of 1.50 credits must be from the following list of preferred electives:
   - BOT*3310 [0.50]  Plant Physiology
   - BOT*3410 [0.50]  Plant Anatomy
   - PBIO*3110 [0.50]  Crop Physiology
   - PBIO*3750 [0.50]  Plant Tissue Culture
   - PBIO*4000 [0.50]  Molecular and Cellular Aspects of Plant-Microbe Interactions
   - PBIO*4100 [0.50]  Soil Plant Relationships
   - PBIO*4150 [0.50]  Molecular and Cellular Aspects of Plant Development
   - PBIO*4530 [0.50]  Environmental Pollution Stresses on Plants
   - PBIO*4600 [0.75]  Plant Environment Interaction and Stress Physiology
   - PBIO*4750 [0.50]  Genetic Engineering of Plants

2. A minimum of 4.00 credits must be from the following list:
   - BIOL*3050 [0.50]  Mycology I
   - BOT*2000 [0.50]  Plants, Biology and People
   - BOT*4820 [0.75]  Research Opportunities in Botany I
   - BOT*4830 [0.75]  Research Opportunities in Botany II
   - CROP*2280 [0.50]  Crops in Land Reclamation
   - CROP*3300 [0.50]  Grain Crops
   - CROP*3310 [0.50]  Protein and Oilseed Crops
   - CROP*3320 [0.50]  Pasture and Grazing Management
   - CROP*3330 [0.50]  Forage Crops: Science and Technology
   - CROP*3420 [0.50]  Cropping Systems
   - CROP*4300 [0.50]  Weed Science
   - CROP*4700 [0.50]  Crop Science Field Trip
   - CROP*4830 [0.50]  Seminar: Selected Topics in Crop Science
   - CROP*4850 [0.50]  Crop Science Research Project I
   - CROP*4860 [0.50]  Crop Science Research Project II
   - ENVB*2030 [0.50]  Current Issues in Forest Science
   - ENVB*3210 [0.50]  Plant Pathology
   - ENVB*4000 [0.50]  Plant Disease Management
   - ENVB*4070 [0.50]  Biological and Cultural Control of Plant Diseases

0.50 Arts or Social Science elective*
One of:
  - CIS*1200 [0.50]  Introduction to Computing
  - CIS*1500 [0.50]  Introduction to Programming
  - MATH*2080 [0.50]  Elements of Calculus II

Semester 3
AGR*2470 [0.50]  Introduction to Plant Agriculture
BOT*2100 [0.50]  Life Strategies of Plants
BIOC*2580 [0.50]  Introductory Biochemistry
MBG*2000 [0.50]  Introductory Genetics
One of:
  - BIOL*2060 [0.50]  Ecology
  - BOT*2050 [0.50]  Plant Ecology
  - CROP*2110 [0.50]  Crop Ecology

Semester 4
BIOL*2210 [0.50]  Introductory Cell Biology
ENVB*2040 [0.50]  Biology of Plant Pests
MBG*2020 [0.50]  Introductory Molecular Biology
0.50 Arts or Social Science elective
0.50 elective

Semester 5
STAT*2040 [0.50]  Statistics I
0.50 Arts or Social Science elective
1.50 elective **

Semester 6
BOT*3710 [0.50]  Classification and Morphology of Seed Plants
2.00 electives **

Semester 7
2.50 electives **

Semester 8
BOT*4380 [0.50]  Metabolism in the Whole Life of Plants
2.00 electives **

* it is recommended that 0.50 Arts or Social Science elective be chosen from:
  - ECON*1100 [0.50]  Introductory Macroeconomics
  - ENGL*1200 [0.50]  Reading the Contemporary World
  - GEOG*1220 [0.50]  Human Impact on the Environment
  - HIST*1250 [0.50]  Science and Society Since 1500
  - PHIL*1000 [0.50]  Introductory Philosophy: Major Texts
  - POLS*1400 [0.50]  Public Management and Administration
  - PSYC*1100 [0.50]  Principles of Behaviour

Department of Integrative Biology, College of Biological Science.
Department of Environmental Biology, Ontario Agricultural College.
Department of Plant Agriculture, Ontario Agricultural College.

Major (Honours Program)
Students may enter this major in Semester 1 or any semester thereafter. A student wishing to declare the major must consult the Faculty Advisor.

Semester 1
BIOL*1030 [0.50]  Biology I
CHEM*1040 [0.50]  General Chemistry I
MATH*1080 [0.50]  Elements of Calculus I
PHYS*1070 [0.50]  Introductory Physics for Life Sciences
0.50 Arts or Social Science elective*

Students who are admitted deficient in one OAC/4U course in Biology, Chemistry or Physics must take the equivalent introductory course in first semester. The first-year science core in that subject should be completed by Semester 3.

Semester 2
BIOL*1040 [0.50]  Biology II
CHEM*1050 [0.50]  General Chemistry II
PHYS*1080 [0.50]  Physics for Life Sciences
ENVB*4420 [0.50] Problems in Environmental Biology
ENVB*4780 [0.50] Forest Ecology
HORT*3010 [0.50] Annual, Perennial and Indoor Plants - Identification and Use
HORT*3220 [0.50] Turf Management
HORT*3230 [0.50] Plant Propagation
HORT*3260 [0.50] Woody Plants
HORT*3280 [0.50] Greenhouse Production
HORT*3340 [0.50] Culture of Plants
HORT*3510 [0.50] Vegetable Production
HORT*4250 [0.50] Nursery Production
HORT*4300 [0.50] Postharvest Physiology
HORT*4380 [0.50] Tropical and Sub-Tropical Horticultural Crops
HORT*4420 [0.50] Fruit Crops
HORT*4900 [0.50] Horticultural Science Research I
HORT*4910 [0.50] Horticultural Science Research II
MBG*3000 [0.50] Population Genetics
MBG*3100 [0.50] Plant Genetics
MBG*4160 [0.50] Plant Breeding
MICR*3220 [0.50] Plant Microbiology

3. From the total of 8.00 in semester 5-8 at least 5.50 from this list or from the approved science elective course list for B.Sc. students must be at the 3000 and 4000 levels and at least 2.00 must be at the 4000 level.

Minor (Honours Program)
A minor in Plant Biology requires 5.00 credits in the Plant Biology program chosen in consultation with the faculty advisor. The courses will include:

AGR*2451/2 [1.00] Plant Agriculture
BOT*2100 [0.50] Life Strategies of Plants
BOT*3710 [0.50] Classification and Morphology of Seed Plants
ENVB*2040 [0.50] Biology of Plant Pests

1.00 credits from list of preferred electives:

One of:
BIOL*2060 [0.50] Ecology
BOT*2050 [0.50] Plant Ecology
CROP*2110 [0.50] Crop Ecology

The remaining credits chosen from offerings by the Department of Integrative Biology, Environmental Biology, Plant Agriculture, Crop Science or Horticulture Science.

Plant Biotechnology (PBTC)
Department of Molecular and Cellular Biology, College of Biological Sciences.
Department of Environmental Biology, Ontario Agricultural College.
Department of Plant Agriculture, Ontario Agricultural College.

Major (Honours Program)
Students may enter this major in any semester. A student wishing to declare the major must consult the Faculty Advisor.

Semester 1

BIOL*1030 [0.50] Biology I
CHEM*1040 [0.50] General Chemistry I
MATH*1080 [0.50] Elements of Calculus I
PHYS*1070 [0.50] Introductory Physics for Life Sciences

0.50 Arts or Social Science elective

Students who are admitted deficient in one OAC/4U course in Biology, Chemistry or Physics must take the equivalent introductory course in first semester. The first-year science core in that subject should be completed by Semester 3.

Semester 2

BIOL*1040 [0.50] Biology II
CHEM*1050 [0.50] General Chemistry II
PHYS*1080 [0.50] Physics for Life Sciences

0.50 Arts or Social Science elective

One of:
CIS*1200 [0.50] Introduction to Computing
CIS*1500 [0.50] Introduction to Programming

Semester 3

BIOL*2210 [0.50] Introductory Cell Biology
BIOL*2580 [0.50] Introductory Biochemistry
MBG*2000 [0.50] Introductory Genetics

0.50 elective

One of:
AGR*2470 [0.50] Introduction to Plant Agriculture
BOT*2000 [0.50] Plants, Biology and People

Semester 4

BOT*2100 [0.50] Life Strategies of Plants
MBG*2020 [0.50] Introductory Molecular Biology
MICR*2030 [0.50] Microbial Growth

STAT*2040 [0.50] Statistics I

0.50 elective

Semester 5

BOT*3310 [0.50] Plant Physiology
MBG*3100 [0.50] Plant Genetics
PBIO*3750 [0.50] Plant Tissue Culture

1.00 elective

Semester 6

MBG*3350 [0.75] Laboratory Methods in Molecular Biology I
MBG*4300 [0.50] Plant Molecular Genetics

0.75 elective

One of:
PBIO*4150 [0.50] Molecular and Cellular Aspects of Plant Development
PBIO*4750 [0.50] Genetic Engineering of Plants

Semester 7

PBIO*4000 [0.50] Molecular and Cellular Aspects of Plant-Microbe Interactions
PBIO*4300 [1.00] Research Opportunities in Plant Biotechnology I

1.00 elective

Semester 8

BOT*4380 [0.50] Metabolism in the Whole Life of Plants

1.50 elective

One of:
PBIO*4150 [0.50] Molecular and Cellular Aspects of Plant Development
PBIO*4750 [0.50] Genetic Engineering of Plants

Restricted Electives
From a total of 4.25 remaining credits for electives in Semesters 3-8, at least 3.00 credits must be from the following list of Restricted Electives. Students must select 2.00 restricted electives from List A and 1.00 restricted electives from List B.

List A
A minimum of 2.00 credits must be taken from the following list:

BIOL*3300 [0.50] Applied Bioinformatics
BOT*3410 [0.50] Plant Anatomy
MBG*3200 [0.50] Genetics: Our Uncertain Heritage
MBG*3600 [0.25] Introduction to Genomics
MBG*4350 [0.50] Structural Molecular Biology
MBG*4620 [0.50] Molecular Cytogenetics
MBG*3220 [0.50] Plant Microbiology
MICR*3230 [0.50] Immunology I
MICR*4120 [0.50] Virology
MICR*4230 [0.50] Immunology II
PBIO*3110 [0.50] Crop Physiology
PBIO*4310 [1.00] Research Opportunities in Plant Biotechnology II
PBIO*4600 [0.75] Plant Environment Interaction and Stress Physiology

Note: Students are strongly recommended to take PBIO*4310. Permission of the instructor is required.

List B
A minimum of 1.00 credits must be taken from the following list:

CROP*2110 [0.50] Crop Ecology
CROP*3300 [0.50] Grain Crops
CROP*3310 [0.50] Protein and Oilsed Crops
ENVB*3210 [0.50] Plant Pathology
HORT*3220 [0.50] Turf Management
HORT*3230 [0.50] Plant Propagation
HORT*3280 [0.50] Greenhouse Production
HORT*3510 [0.50] Vegetable Production
HORT*4300 [0.50] Postharvest Physiology
HORT*4420 [0.50] Fruit Crops
MBG*4160 [0.50] Plant Breeding

Minor (Honours Program)
A minor in Plant Biotechnology requires 5.00 credits in the Plant Biotechnology Program chosen in consultation with the Faculty Advisor. The course include:

PBIO*3750 [0.50] Plant Tissue Culture
PBIO*4750 [0.50] Genetic Engineering of Plants

One of the following 2 groups of courses:

Group A

BOT*2000 [0.50] Plants, Biology and People
BOT*2100 [0.50] Life Strategies of Plants

Group B

AGR*2470 [0.50] Introduction to Plant Agriculture

1.50 credits from Restricted Electives List B (listed under Major above)

0.50 credits from Restricted Electives List B (listed under Major above)

1.00 credits from the following courses:
X. Degree Programs, Bachelor of Science (B.Sc.)

Psychology (PSYC)

Department of Psychology, College of Social and Applied Human Sciences.

The B.Sc. Major in Psychology offers an opportunity for students to develop interests within learning, perception, cognition, and physiological psychology from a sound base in physical and biological sciences. Students primarily interested in other areas within psychology should consult the schedule of studies for the Bachelor of Arts program. Psychology courses in the above focuses may also be studied via the B.A. program.

Note on Honours Courses

Courses marked (H) are designed for students in a psychology honours program, the Information Systems and Human Behaviour program, the Developmental Psychology Minor program, the Educational Psychology Minor program, the Organizational Behaviour Minor program, the Social Psychology program, the Cognitive Neuropsychology Minor program, or Human Resources Management major of the Bachelor of Commerce program. Students in other programs wishing to take these courses must obtain the permission of the instructors concerned. Unless otherwise specified, all other courses may be taken by general, honours, and students from other programs, providing the prerequisites are met. Courses designated with (H) are Honours level courses requiring for registration a cumulative average of at least 70% in all course attempts in Psychology, or registration in either the HRM Major or ISHB Major.

Major (Honours Program)

Semester 1

BIOL*1030 [0.50] Biology I
CHEM*1040 [0.50] General Chemistry I
MATH*1080 [0.50] Elements of Calculus I
PHYS*1070 [0.50] Introductory Physics for Life Sciences

One of: *

PSYC*1100 [0.50] Principles of Behaviour
PSYC*1200 [0.50] Dynamics of Behaviour

Students who are admitted deficient in one OAC/4U course in Biology, Chemistry or Physics must take the equivalent introductory course in first semester. The first-year science core in that subject should be completed by Semester 3.

Semester 2

BIOL*1040 [0.50] Biology II
CHEM*1050 [0.50] General Chemistry II
PHYS*1080 [0.50] Physics for Life Sciences

One of:

CIS*1200 [0.50] Introduction to Computing
CIS*1500 [0.50] Introduction to Programming

One of: *

PSYC*1100 [0.50] Principles of Behaviour
PSYC*1200 [0.50] Dynamics of Behaviour

Semester 3

One of:

PSYC*2330 [0.50] Principles of Learning
PSYC*2410 [0.50] Behavioural Neuroscience I

One of:

PSYC*2390 [0.50] Principles of Sensation and Perception
PSYC*2650 [0.50] Cognitive Psychology

One of:

PSYC*2010 [0.50] Quantification in Psychology
STAT*2040 [0.50] Statistics I

1.00 elective **

Semester 4

PSYC*2360 [0.50] Introductory Research Methods
PSYC*3320 [0.50] Statistical Principles in Psychological Research

0.50 Psychology core (PSYC*2330, PSYC*2390, PSYC*2410, PSYC*2650)

0.50 elective**

One of:

PSYC*2310 [0.50] Introduction to Social Psychology
PSYC*2450 [0.50] Introduction to Developmental Psychology
PSYC*2740 [0.50] Personality

Semester 5

PSYC*3370 [0.50] Experimental Design and Analysis

2.00 electives **

Semester 6

PSYC*3250 [0.50] Psychological Measurement
PSYC*3380 [0.50] Non-experimental Research Methods

1.50 electives **

Semester 7***

2.50 electives **

Semester 8***

2.50 electives**

* PSYC*1100 should be completed prior to semester 3, PSYC*1200 prior to semester 4
** Electives in semester 3-8 must satisfy the following requirements:
  i. 1.00 arts and/or non-psychology social science credits
  ii. 4 credits at the 3000 level
  iii. 2 credits at the 4000 level
  iv. 3.5 Psychology B.Sc. elective credits from List A
  v. 3.5 Non-psychology B.Sc. elective credits (suitable course prefixes are provided in List B)
*** students planning to enter a graduate program in Psychology are advised to complete
PSYC*4870 and PSYC*4880 in Semesters 7 and 8, respectively. Note that PSYC*4370 or PSYC*4900 must be completed prior to or concurrently with either PSYC*4870 or PSYC*4880

Note: The selection of electives should take into consideration the prerequisites for preferred advanced courses. With the permission of the Psychology Department PRIOR to course selection, up to 2 non-psychology credits can be used towards the psychology credits if such courses enhance the student's psychology program.

List A Psychology B.Sc. Electives

PSYC*2030 [0.50] Neurochemical Basis of Behaviour
PSYC*2040 [0.50] Current Issues in Neuropsychology
PSYC*3100 [0.50] Evolutionary Psychology
PSYC*3220 [0.50] Ergonomics: the Scientific Study of People-System Relationships
PSYC*3330 [0.50] Memory
PSYC*3340 [0.50] Psycholinguistics
PSYC*3341 [0.50] Behavioural Neuroscience II
PSYC*3430 [0.50] Topics in Animal Learning and Cognition
PSYC*3850 [0.50] Intellectual Disabilities
PSYC*4370 [0.50] History of Psychology
PSYC*4600 [0.50] Cognitive Neuroscience
PSYC*4750 [0.50] Motivation
PSYC*4870 [0.50] Honours Thesis I
PSYC*4880 [0.50] Honours Thesis II
PSYC*4900 [0.50] Psychology Seminar

List B

List of Approved Science Electives Courses for B.Sc. students, excluding psychology:

Courses with the following prefixes are examples of particularly suitable science electives for students in this program: BIOL; BIOM; CIS; ENGG; ENVB; HK; MATH; STAT; ZOO; ENVB.

Minor (Honours Program)

A minor in Psychology requires 5.00 psychology credits as follows:

PSYC*1100 [0.50] Principles of Behaviour
PSYC*1200 [0.50] Dynamics of Behaviour
PSYC*2360 [0.50] Introductory Research Methods

2.00 credits from 2000 level psychology core courses selected as follows:

a. 1.50 credits from:

  PSYC*2330 [0.50] Principles of Learning
  PSYC*2390 [0.50] Principles of Sensation and Perception
  PSYC*2410 [0.50] Behavioural Neuroscience I
  PSYC*2650 [0.50] Cognitive Psychology

b. 0.50 credits from:

  PSYC*2310 [0.50] Introduction to Social Psychology
  PSYC*2450 [0.50] Introduction to Developmental Psychology
  PSYC*2740 [0.50] Personality

1.00 credits from courses in List A

One of:

PSYC*2010 [0.50] Quantification in Psychology
STAT*2040 [0.50] Statistics I

Statistics (STAT)

Department of Mathematics and Statistics, College of Physical and Engineering Science.

Students in this program will acquire the ability to use modern statistical methods in a variety of applications, the theoretical understanding necessary to develop statistical methods to meet new needs and a solid preparation for further study. As well, since statistical computing is a fundamental tool for the application and development of modern statistical methods, students will develop skills in computer applications programming using such high-level languages as SAS and S-PLUS.
One of:

STAT*3240 [0.50] Applied Regression Analysis
STAT*3100 [0.50] Introductory Mathematical Statistics I
STAT*2040 [0.50] Statistics I
MATH*1210 [0.50] Calculus II
MATH*1200 [0.50] Calculus I

A total of 5.00 credits in Statistics and Mathematics are required, including:

Minor (Honours Program)

Students may enter this major in any semester. A student wishing to declare the major must consult the Faculty Advisor. A total of 20.00 credits is required to complete the major. Required 1000 level courses are listed under Semester 1 and Semester 2 of the recommended Schedule of Studies for Major. At least 8.00 credits in Statistics and Mathematics are required at the 2000 level or above, as follows: MATH*2130, MATH*2150, MATH*2160, MATH*2200, STAT*2040, STAT*2050, STAT*3100, STAT*3110, STAT*3210, STAT*3240, STAT*3320. Five other courses (2.50 credits) in Statistics at the 3000 or 4000 level, of which at least four (2.00 credits) must be at the 4000 level. One other course (0.50 credit) in Mathematics or Statistics at the 2000 level or above.

Recommended Schedule of Studies for Major (Honours Program)

Semester 1

BIOL*1030 [0.50] Biology I
CHEM*1040 [0.50] General Chemistry I
CIS*1500 [0.50] Introduction to Programming
MATH*1200 [0.50] Calculus I
PHYS*1000 [0.50] An Introduction to Mechanics

Students who are admitted deficient in one OAC/4U course in Biology, Chemistry or Physics must take the equivalent introductory course in first semester. The first-year science core in that subject should be completed by Semester 3.

Semester 2

BIOL*1040 [0.50] Biology II
CHEM*1050 [0.50] General Chemistry II
MATH*1210 [0.50] Calculus II
PHYS*1010 [0.50] Introductory Electricity and Magnetism
0.50 Arts or Social Science elective*

Semester 3

MATH*2200 [0.50] Advanced Calculus I
STAT*2040 [0.50] Statistics I
One of:

MATH*2150 [0.50] Applied Matrix Algebra
MATH*2160 [0.50] Linear Algebra I
0.50 Arts or Social Science elective
0.50 elective**

Semester 4

MATH*2130 [0.50] Numerical Methods
STAT*2050 [0.50] Statistics II
1.50 electives**

Semester 5

STAT*3100 [0.50] Introductory Mathematical Statistics I
STAT*3240 [0.50] Applied Regression Analysis
STAT*3320 [0.50] Sampling Theory with Applications
1.00 electives**

Semester 6

STAT*3110 [0.50] Introductory Mathematical Statistics II
STAT*3210 [0.50] Experimental Design
1.50 electives**

Semester 7

2.50 electives**

Semester 8

2.50 electives**

*The recommended Arts or Social Science elective can be postponed to a future semester if the student wishes to take STAT*2040 in Semester 2.

** Electives must satisfy the following requirements:
1. Electives must include at least 2.50 credits in Statistics at the 3000 or 4000 level, and an additional 0.50 credit in Statistics or Mathematics at the 2000 level or above.
2. At least 2.00 credits in Statistics must be at the 4000 level.
3. Electives plus core courses must include at least 6.00 credits at the 3000 or 4000 level from the B.Sc. Program Committee approved list of science electives.
4. At least 1.00 credits in Arts or Social Science must be completed.

Minor (Honours Program)

A total of 5.00 credits in Statistics and Mathematics are required, including:

MATH*1200 [0.50] Calculus I
MATH*1210 [0.50] Calculus II
MATH*2040 [0.50] Statistics I
STAT*2050 [0.50] Statistics II
STAT*3100 [0.50] Introductory Mathematical Statistics I
STAT*3110 [0.50] Introductory Mathematical Statistics II
STAT*3240 [0.50] Applied Regression Analysis
One of:

MATH*2150 [0.50] Applied Matrix Algebra
MATH*2160 [0.50] Linear Algebra I

Theoretical credit in Statistics
0.50 additional credit in Statistics or Mathematics

Theoretical Physics (THPY)

Department of Physics, College of Physical and Engineering Science.

Students may enter this major in Semester 1 or any semester thereafter. A student wishing to declare the major must consult the Faculty Advisor. Since some of the required courses are not offered every semester, students entering the Major in Theoretical Physics should plan their program in consultation with the Faculty Advisor.

Major (Honours Program)

This major requires the completion of 21.25 credits. At least 1.00 of these credits must be obtained from the completion of Arts and/or Social Science courses.

Semester 1 to 3

The program for the first three semesters is the same as the Major in Physics program.

Semester 4

MATH*2170 [0.50] Differential Equations I
PHYS*2260 [0.50] Experimental Basis of Quantum Physics
PHYS*2450 [0.75] Mechanics II
PHYS*2470 [0.75] Electricity and Magnetism II
One of:

MATH*2210 [0.50] Advanced Calculus II
0.50 elective

Semester 5

MATH*3100 [0.50] Differential Equations II
PHYS*3100 [0.75] Electronics
PHYS*3230 [0.50] Quantum Mechanics I
PHYS*3240 [0.50] Statistical Physics I
One of:

MATH*2000 [0.50] Set Theory
0.50 elective

Semester 6

MATH*3260 [0.50] Complex Analysis
PHYS*3220 [0.50] Waves and Optics
PHYS*3400 [0.50] Advanced Mechanics
PHYS*3510 [0.50] Intermediate Laboratory
PHYS*4040 [0.50] Quantum Mechanics II

Semester 7

PHYS*4120 [0.50] Atomic and Molecular Physics
PHYS*4180 [0.50] Advanced Electromagnetic Theory
PHYS*4240 [0.50] Statistical Physics II
One 3000 or 4000 level mathematics course or 0.50 elective
One of:

PHYS*4500 [0.50] Advanced Physics Laboratory
0.50 elective

Semester 8

PHYS*4130 [0.50] Subatomic Physics
PHYS*4150 [0.50] Solid State Physics
PHYS*4510 [0.50] Advanced Physics Project
One 3000 or 4000 level mathematics course
0.50 elective

*those not taking MATH*2210 in Semester 4 must consult the Department of Physics Departmental Advisor

Wild Life Biology (WLB)

Department of Integrative Biology, College of Biological Science.

The Major in Wild Life Biology provides exposure to the ecological principles upon which the scientific management of wild life is based. This major prepares students for the scientific management of wild life and provides a sound science background for students wishing to pursue careers in teaching, government service or the private sector.

Major (Honours Program)

Students may enter this major in Semester 1 or any semester thereafter. A student wishing to declare the major must consult the Faculty Advisor. A minimum total of 20.00 credits is required to complete the major.

Semester 1

BIOL*1030 [0.50] Biology I
CHEM*1040 [0.50] General Chemistry I
MATH*1080 [0.50] Elements of Calculus I
PHYS*1070 [0.50] Introductory Physics for Life Sciences
0.50 Arts or Social Science elective *

Students who are admitted deficient in one OAC/4U course in Biology, Chemistry or Physics must take the equivalent introductory course in first semester. The first-year science core in that subject should be completed by Semester 3.
X. Degree Programs, Bachelor of Science (B.Sc.)

Semester 2
BIOL*1040 [0.50] Biology II
CHEM*1050 [0.50] General Chemistry II
PHYS*1080 [0.50] Physics for Life Sciences
STAT*2040 [0.50] Statistics I
0.50 Arts or Social Science elective *

Semester 3
BIOL*1030 [0.50] Biology I
CHEM*1040 [0.50] General Chemistry I

Semester 4
BIOL*2210 [0.50] Introductory Cell Biology
MBG*2000 [0.50] Introductory Genetics
NUTR*3320 [0.50] Fundamentals of Nutrition
ZOO*2080 [0.50] Invertebrate Zoology II
0.50 elective **

Semester 5
BIOL*3010 [0.50] Laboratory and Field Work in Ecology
BIOL*3110 [0.50] Population Ecology
BOT*2050 [0.50] Plant Ecology
ZOO*3200 [0.50] Comparative Animal Physiology I
ZOO*3300 [0.50] Evolution

Semester 6
BIOL*3120 [0.50] Community Ecology
NUTR*3350 [0.50] Wildlife Nutrition
ZOO*3210 [0.50] Comparative Animal Physiology II
1.00 elective **, ***

Semester 7
BIOL*4110 [0.75] Ecological Methods
ZOO*4070 [0.50] Animal Behaviour
1.25 electives **

Semester 8
BIOL*4150 [0.50] Wildlife Conservation and Management
2.00 electives **
* CIS*1200 is recommended for those needing to improve their computer skills
** suggested electives list available from faculty advisors
*** BIOL*2250 is strongly recommended if independent research project courses are anticipated in semester 7 and/or 8
**** a minimum of 0.75 credits from these courses may be taken as an alternative to BIOL*4110 in semester 7:
BIOC*2580 [0.50] Introductory Biochemistry
ZOO*4700 [0.50] Vertebrate Structure and Function
ZOO*4100 [0.50] Developmental Biology
0.50 Arts or Social Science elective *

Zoology (ZOO)

Department of Integrative Biology, College of Biological Science.
The Major in Zoology offers a broad education in the life sciences while providing a more specialized understanding of the structure, function and ecology of animals. This major qualifies students for post-graduate work in zoology and other life sciences and provides a sound science background for students wishing to pursue careers in teaching, government service or the private sector.

Major (Honours Program)
Students may enter this major in Semester 1 or any semester thereafter. A student wishing to declare the major must consult the Faculty Advisor. A minimum total of 20.00 credits is required to complete the major.

Semester 1
BIOL*1030 [0.50] Biology I
CHEM*1040 [0.50] General Chemistry I

Semester 2
BIOL*1040 [0.50] Biology II
CHEM*1050 [0.50] General Chemistry II
PHYS*1080 [0.50] Physics for Life Sciences
STAT*2040 [0.50] Statistics I
0.50 Arts or Social Science elective *

Students who are admitted deficient in one OAC/4U course in Biology, Chemistry or Physics must take the equivalent introductory course in first semester. The first-year science core in that subject should be completed by Semester 3.

Semester 3
ZOO*2070 [0.50] Vertebrate Structure and Function
ZOO*2100 [0.50] Developmental Biology
1.00 elective **

Semester 4
BIOL*2210 [0.50] Introductory Cell Biology
ZOO*3200 [0.50] Comparative Animal Physiology I
ZOO*3300 [0.50] Evolution
1.00 elective **

Semester 5
BIOL*3110 [0.50] Population Ecology
ZOO*3210 [0.50] Comparative Animal Physiology II
1.50 electives **, ***

Semester 6
BIOL*3120 [0.50] Community Ecology
ZOO*3300 [0.50] Evolution
1.50 electives **

Semester 7
ZOO*3000 [0.50] Comparative Histology
ZOO*4070 [0.50] Animal Behaviour
1.50 electives **

Semester 8
2.50 electives **
* CIS*1200 is recommended for those needing to improve their computer skills
** suggested electives list available from the faculty advisors
*** BIOL*2250 is strongly recommended if independent research project courses are anticipated in semesters 7 and/or 8

Electives must include:
1. A minimum of 0.50 credits from:
ZOO*4170 [0.50] Experimental Comparative Animal Physiology
ZOO*4300 [0.50] Marine Biology and Oceanography
ZOO*4410 [0.50] Field Ecology
ZOO*4500 [0.50] Research Problems in Zoology I
ZOO*4510 [0.50] Research Problems in Zoology II
ZOO*4600 [0.50] Tropical Ecology
ZOO*4610 [0.50] Arctic Ecology
ZOO*4630 [0.50] Oceanography
ZOO*4710 [0.50] Field Biology
ZOO*4800 [0.50] Field Biology
ZOO*4810 [0.50] Field Biology

2. At least 1.00 Arts or Social Science electives.

3. This major must contain at least 6.00 science credits at the 3000 or 4000 level, which must include at least 2.00 at the 4000 level. The restricted elective in point number 1 above counts as part of this 3000 or 4000 level requirement.

Note: The Major in Zoology is a flexible program which allows students in consultation with faculty advisors, to design a program to meet their own needs and interests. For example, students may wish to concentrate in Evolutionary Physiology, Quantitative Zoology, or Systematic Zoology for which lists of electives are available from faculty advisors.

Minor (Honours Program)
Students in programs other than Zoology, Wildlife Biology, Marine and Freshwater Biology and Ecology who have a strong interest in Zoology may choose to take a minor in Zoology. A minor in Zoology requires a minimum of 5.00 credits and will include:
BIOL*1030 [0.50] Biology I
BIOL*1040 [0.50] Biology II
4.00 additional credits in Zoology (ZOO*) courses at the 2000 level or higher
Bachelor of Science in Agriculture [B.Sc.(Agr.)]

The B.Sc.(Agr.) degree program is a 4 year honours science program designed to provide a fundamental education in the science of agriculture. The curriculum includes courses in the agricultural sciences, the physical, biological and social sciences, and in the arts.

Program Information

Agricultural scientists must be effective communicators and problem solvers, self-directed in their learning, and have a global perspective on the agrifood systems. A series of 9 or 10 agricultural science (AGR*XXXX) courses throughout the program enables students to further develop their abilities in communications, analysis and problem solving, computer applications and to increase their interpersonal skills. Students will be involved in cooperative group learning activities and will experience courses that are multidisciplinary and integrate the teaching activities of many faculty and departments.

Students will have the option of completing a broad agricultural program (honours agricultural science) or identifying another major in which they take a minimum of 6.00 credits.

The curriculum provides opportunities for students to select courses that will help them prepare for professional careers as entrepreneurs, scientists, marketing specialists, financial managers, technical advisors, or communications specialists. Students will have a comprehensive understanding of the food system when they graduate. They will be able to integrate their knowledge of production agriculture, environmental management, resource allocation and business management as it applies to the food system nationally and globally.

Students will be encouraged to integrate their academic program with a well-planned series of employment activities in the summer months and to develop their leadership and interpersonal skills in on-campus and community activities. There is a strong commitment in the curriculum to the philosophy of "whole person development" and students are encouraged to identify personal goals that they wish to accomplish in each of these areas of their development.

Graduates meet the educational requirements for membership in the Ontario Institute of Agrologists. The Ontario Institute of Agrologists is the professional organization in agriculture in the Province of Ontario. Professional institutes in the various provinces in Canada and the scientific societies in agriculture collectively comprise the Agricultural Institute of Canada. The program received full accreditation from the Agricultural Institute of Canada in April 1999.

Students may graduate with a degree in honours agricultural science. Students who wish to specialize in 1 of the major areas of study may do so by completing the courses identified for each major.

Additional Majors:
Agricultural Economics
Agroecosystem Management
Agronomy
Animal Science
Horticultural Science
Organic Agriculture

Declaration of a Major

All students are considered to be registered in honours agricultural science in the first 3 semesters of the program. Those who wish to select a different major may do so when they are selecting their courses for semester 4 or later. The course requirements are listed for each major in the following section.

Students may, with appropriate approvals, elect to complete Minors associated with other degree programs as listed in the undergraduate calendar.

Study Abroad

The B.Sc.(Agr.) degree program is similar in many respects to programs offered at faculties of agricultural science in other provinces in Canada. Students are strongly encouraged to consider studying for 1 or 2 semesters in other faculties of agricultural science in Canada and in selected countries around the world.

Students interested in studying at another institution program should consult the B.Sc.(Agr.) Program Counsellor to discuss their plans, and refer to the scholarship section for financial support.

For more specific information on these opportunities refer to Section V--International Study in this calendar, or contact the OAC Dean's Office.

Doctor of Veterinary Medicine

Students in the B.Sc.(Agr.) program normally apply for admission to the D.V.M. program after semester 4 or later. Applications must be submitted to the Admissions Services, Office of Registrarial Services. Students should consult the D.V.M. Section of the calendar. Students who do not gain admission to the D.V.M. program are eligible to continue in the B.Sc.(Agr.) program through to graduation.

Students planning to enter the D.V.M. program are advised to include 12U biology, 12U chemistry, and 12U physics in addition to calculus in secondary school.

Continuation of Study

Students are advised to consult the regulations for continuation of study within the program which are outlined in detail in Section VIII--Undergraduate Degree Regulations & Procedures.

Conditions of Graduation

To qualify for the degree Bachelor of Science (Agriculture), the student must successfully complete a minimum of 20.00 credits as set out in the Schedule of Studies listed below. In addition, students must meet the continuation of study requirements at the time of graduation and have a minimum of 60% cumulative average.

Honours Agriculture (AGRS)

Semester 1

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGR*1100</td>
<td>0.50</td>
<td>Introduction to the Agrifood System</td>
</tr>
<tr>
<td>BIOL*1030</td>
<td>0.50</td>
<td>Biology I</td>
</tr>
<tr>
<td>CHEM*1040</td>
<td>0.50</td>
<td>General Chemistry I</td>
</tr>
<tr>
<td>ECON*1050</td>
<td>0.50</td>
<td>Introductory Microeconomics</td>
</tr>
<tr>
<td>MATH*1080</td>
<td>0.50</td>
<td>Elements of Calculus I</td>
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Semester 2

<table>
<thead>
<tr>
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<tr>
<td>AGR*1250</td>
<td>0.50</td>
<td>Agrifood System Trends and Issues</td>
</tr>
<tr>
<td>BIOL*1040</td>
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<td>Biology II</td>
</tr>
<tr>
<td>CHEM*1050</td>
<td>0.50</td>
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Semester 3

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<td>Animal Production Systems and Industry</td>
</tr>
<tr>
<td>AGR*2400</td>
<td>0.50</td>
<td>Economics of the Canadian Food System</td>
</tr>
<tr>
<td>AGR*2470</td>
<td>0.50</td>
<td>Introduction to Plant Agriculture</td>
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Semester 4

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<td>Environmental Issues in Agroecosystems</td>
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<tr>
<td>STAT*2040</td>
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<td>Statistics I</td>
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<td>One of:</td>
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<tr>
<td>CROP*2110</td>
<td>0.50</td>
<td>Crop Ecology</td>
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<tr>
<td>HORT*3340</td>
<td>0.50</td>
<td>Culture of Plants</td>
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<td>One of:</td>
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<td>ANSC*2340</td>
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<td>Structure of Farm Animals</td>
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<tr>
<td>ANSC*2360</td>
<td>0.50</td>
<td>Challenges and Opportunities in Animal Production</td>
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<tr>
<td>ANSC*3150</td>
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<td>Principles of Farm Animal Care and Welfare</td>
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<td>Note: ANSC<em>2360 is a Fall offering and ANSC</em>2340, ANSC*3150 are Winter offerings. 0.50 restricted elective</td>
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Semester 5

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<tr>
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<td>Survey of Natural Resource Economics</td>
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<td>FOOD*3070</td>
<td>0.50</td>
<td>Introduction to Food Processing</td>
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Semester 6

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<tr>
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<td>2.00 electives</td>
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Semester 7 & 8

Students must choose either Option A or B in Semester 7 and 8

Option A:

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<tr>
<td>AGR*4500</td>
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<td>Agrifood Industry Problem-Solving</td>
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Option B:

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<tr>
<td>AGR*4450</td>
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<td>Research Project in Agriculture I</td>
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<td>AGR*4460</td>
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Restricted Electives

1. 2 of the following Restricted Electives are required:

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<tbody>
<tr>
<td>BOT*2100</td>
<td>0.50</td>
<td>Life Strategies of Plants</td>
</tr>
<tr>
<td>BIOL*2580</td>
<td>0.50</td>
<td>Introductory Biochemistry</td>
</tr>
<tr>
<td>ECON*1100</td>
<td>0.50</td>
<td>Introductory Macroeconomics</td>
</tr>
<tr>
<td>ECON*2310</td>
<td>0.50</td>
<td>Intermediate Microeconomics</td>
</tr>
<tr>
<td>GEOL*3130</td>
<td>0.50</td>
<td>Agrogeology</td>
</tr>
<tr>
<td>MBG*2000</td>
<td>0.50</td>
<td>Introductory Genetics</td>
</tr>
<tr>
<td>SOIL*2120</td>
<td>0.50</td>
<td>Introduction to Environmental Stewardship</td>
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</tbody>
</table>

2. A minimum of 7.00 credits must be at the 3000 level or higher, of which 5.00 credits must be in agricultural science and of which 3.50 credits must be at the 4000 level.

Refer to Program Counsellor for list of agricultural science courses.

3. A humanities or social science course (0.50 credit) at the 2000 level or above from the College of Arts or College of Social and Applied Human Sciences.
Agricultural Economics (AGEC)

Department of Agricultural Economics and Business.

Semester 1
AGR*1100  [0.50] Introduction to the Agrifood System
BIOL*1030  [0.50] Biology I
CHEM*1040  [0.50] General Chemistry I
ECON*1050  [0.50] Introductory Microeconomics
MATH*1080  [0.50] Elements of Calculus I

Semester 2
AGR*1250  [0.50] Agrifood System Trends and Issues
BIOL*1040  [0.50] Biology II
CHEM*1050  [0.50] General Chemistry II
ECON*1100  [0.50] Introductory Macroeconomics
ENGL*1200  [0.50] Reading the Contemporary World

Semester 3
AGR*2400  [0.50] Economics of the Canadian Food System
ECON*2310  [0.50] Intermediate Microeconomics
Two of:
AGR*2320  [0.50] Soils in Agroecosystems
AGR*2350  [0.50] Animal Production Systems and Industry
AGR*2470  [0.50] Introduction to Plant Agriculture
0.50 elective or restricted elective

Semester 4
AGEC*2410  [0.50] Agrifood Markets and Policy
ECON*2410  [0.50] Intermediate Macroeconomics
ECON*2740  [0.50] Economic Statistics
ECON*2770  [0.50] Introductory Mathematical Economics
0.50 elective or restricted elective

Semester 5
ECON*3740  [0.50] Introduction to Econometrics
FOOD*3070  [0.50] Introduction to Food Processing
One of:
AGR*2320  [0.50] Soils in Agroecosystems
AGR*2350  [0.50] Animal Production Systems and Industry
AGR*2470  [0.50] Introduction to Plant Agriculture
1.00 electives or restricted electives

Semester 6
EDRD*3400  [0.50] Sustainable Rural Communities
2.00 electives or restricted electives

Semester 7 & 8
Students must choose either Option A or B in Semester 7 and 8

Option A:
Semester 7
AGEC*3030  [0.50] The Firm and Markets
AGEC*4500  [0.50] Decision Science
1.50 electives or restricted electives

Semester 8
AGEC*4000  [0.50] Agricultural and Food Policy
AGR*4500  [0.50] Agrifood Industry Problem-Solving
1.50 electives or restricted electives

Option B:
Semester 7
AGEC*3030  [0.50] The Firm and Markets
AGEC*4500  [0.50] Decision Science
AGR*4450  [1.00] Research Project in Agriculture I
0.50 elective or restricted elective

Semester 8
AGEC*4000  [0.50] Agricultural and Food Policy
AGR*4460  [1.00] Research Project in Agriculture II
1.00 electives or restricted electives

Restricted Electives
1. Students are required to take at least 1.50 additional credits at the 3000 or 4000 level in the following subject areas: AGEC, COST, ECON, or in an area otherwise approved by the faculty advisor. At least 1.00 of these additional credits must be at the 4000 level.
2. A minimum of 7.00 credits must be at the 3000 level or higher, of which 5.00 credits must be in agricultural science and of which 3.50 credits must be at the 4000 level.

Refer to Program Counsellor for list of agricultural science courses.

Agroecosystem Management (AGMN)

Department of Land Resource Science.

Semester 1
AGR*1100  [0.50] Introduction to the Agrifood System
BIOL*1030  [0.50] Biology I
CHEM*1040  [0.50] General Chemistry I
ECON*1050  [0.50] Introductory Microeconomics
MATH*1080  [0.50] Elements of Calculus I

Semester 2
AGR*1250  [0.50] Agrifood System Trends and Issues
BIOL*1040  [0.50] Biology II
CHEM*1050  [0.50] General Chemistry II
ENGL*1200  [0.50] Reading the Contemporary World

Semester 3
AGR*2400  [1.00] Research Project in Agriculture II

Semester 4
AGR*2450  [0.50] Research Project in Agriculture I
AGEC*4500  [0.50] Decision Science
AGEC*3030  [0.50] The Firm and Markets

Semester 5
AGR*2470  [0.50] Introduction to Plant Agriculture

Semester 6
FOOD*3070  [0.50] Introduction to Food Processing

Semester 7
GEOL*3060  [0.50] Groundwater
GEOL*3130  [0.50] Agrogeology

Semester 8
SOIL*4110  [0.50] Natural Resources Management Field Camp
SOIL*4210  [0.50] Earth and Atmospheric Science Field Camp

Restricted Electives
1. A minimum of 2.00 credits from one or more groupings in Land Resource Science from the list below:

Climate & Agroecosystems Management:

   GEOG*3020  [0.50] Global Environmental Change
   GEOL*2200  [0.50] Glacial Geology
   MET*2030  [0.50] Meteorology and Climatology
   MET*3050  [0.50] Microclimatology
   MET*4210  [0.50] Atmospheric Experimentation and Instrumentation
   SOIL*4090  [0.50] Soil Management
   GEOL*2200  [0.50] Glacial Geology
   SOIL*3060  [0.50] Environmental Soil Chemistry
   SOIL*3070  [0.50] Environmental Soil Physics

2. A minimum of 7.00 credits must be at the 3000 level or higher, of which 5.00 credits must be in agricultural science and of which 3.50 credits must be at the 4000 level.

Refer to Program Counsellor for list of agricultural science courses.
**Agronomy (AGRO)**

Departments of Plant Agriculture, Crop Science Division, and Land Resource Science.

**Semester 1**

<table>
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<th>Credits</th>
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<tbody>
<tr>
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<td>Introduction to the Agrifood System</td>
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<tr>
<td>BIOL*1030</td>
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<td>Biology I</td>
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<tr>
<td>CHEM*1040</td>
<td>0.50</td>
<td>General Chemistry I</td>
</tr>
<tr>
<td>ECON*1050</td>
<td>0.50</td>
<td>Introductory Microeconomics</td>
</tr>
<tr>
<td>MATH*1080</td>
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<td>Elements of Calculus I</td>
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**Semester 2**

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<tr>
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<td>Agrifood System Trends and Issues</td>
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<tr>
<td>BIOL*1040</td>
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<td>Biology II</td>
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<td>CHEM*1050</td>
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<td>General Chemistry II</td>
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<tr>
<td>ENGL*1200</td>
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0.50 elective

**Semester 3**

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<td>Animal Production Systems and Industry</td>
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<td>AGR*2400</td>
<td>0.50</td>
<td>Economics of the Canadian Food System</td>
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<td>AGR*2470</td>
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<td>Introduction to Plant Agriculture</td>
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<td>BOT*2100</td>
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**Semester 4**

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1.00 electives or restricted electives

**Semester 5**

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<td>SOIL*3080</td>
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0.50 elective or restricted elective

**Semester 6**

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2.00 electives or restricted electives

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**Animal Science (ANSC)**

Department of Animal and Poultry Science.

**Semester 1**

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<tr>
<td>BIOL*1030</td>
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<td>CHEM*1040</td>
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<td>MATH*1080</td>
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**Semester 2**

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<td>AGR*1250</td>
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<td>Agrifood System Trends and Issues</td>
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<tr>
<td>BIOL*1040</td>
<td>0.50</td>
<td>Biology II</td>
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<td>CHEM*1050</td>
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0.50 elective

**Semester 3**

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<td>Soils in Agroecosystems</td>
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<td>AGR*2350</td>
<td>0.50</td>
<td>Animal Production Systems and Industry</td>
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<td>AGR*2470</td>
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<td>MBG*2000</td>
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**Semester 4**

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<td>Structure of Farm Animals</td>
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<td>BIOL*2580</td>
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1.00 electives or restricted electives

**Semester 5**

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<td>Challenges and Opportunities in Animal Production</td>
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<td>ANSC*3080</td>
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<td>Agricultural Animal Physiology</td>
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<td>MBG*3090</td>
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<td>Applied Animal Breeding</td>
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**Semester 6**

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<tr>
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<td>Principles of Farm Animal Care and Welfare</td>
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<td>ANSC*4120</td>
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<td>Fundamentals of Animal Reproduction</td>
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</table>
Department of Plant Agriculture, Horticultural Science Division.

Semester 1
AGR*1100 [0.50] Introduction to the Agrifood System
Biol*1030 [0.50] Biology I
CHEM*1040 [0.50] General Chemistry I
ECON*1050 [0.50] Introductory Microeconomics
MATH*1080 [0.50] Elements of Calculus I

Semester 2
AGR*1250 [0.50] Agrifood System Trends and Issues
Biol*1040 [0.50] Biology II
CHEM*1050 [0.50] General Chemistry II
ENGL*1200 [0.50] Reading the Contemporary World
0.50 elective

Semester 3
AGR*2320 [0.50] Soils in Agroecosystems
AGR*2400 [0.50] Economics of the Canadian Food System
AGR*2470 [0.50] Introduction to Plant Agriculture
CROP*2050 [0.50] Gateway to Organic Agriculture

Semester 4
STAT*2040 [0.50] Statistics I
GEOL*3130 [0.50] Agrogeology
1.50 elective or restricted elective

Semester 5
AGR*3500 [0.50] Experiential Education
BOT*2100 [0.50] Life Strategies of Plants
FOOD*3070 [0.50] Introduction to Food Processing
SOIL*3030 [0.50] Tutorials in Organic Agriculture I
0.50 elective or restricted electives

**Semester 6**

<table>
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<tr>
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<tr>
<td>CROP*3130</td>
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<td>Tutorials in Organic Agriculture II</td>
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<td>EDRD*3400</td>
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<td>Sustainable Rural Communities</td>
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1.50 elective or restricted electives

**Semester 7**

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<tr>
<td>AGEC*2300</td>
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<td>SOIL*4160</td>
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1.50 elective or restricted electives

**Semester 8**

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<td>Agrifood Industry Problem-Solving</td>
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<tr>
<td>REXT*4180</td>
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<td>Social Issues in Organic Agriculture</td>
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1.50 elective or restricted electives

**Restricted Electives**

1. A minimum of 2.00 credits from the list of restricted electives below:
   - ANSC*2360 [0.50] Challenges and Opportunities in Animal Production
   - ANSC*3150 [0.50] Principles of Farm Animal Care and Welfare
   - CROP*2110 [0.50] Crop Ecology
   - CROP*4240 [0.50] Weed Science
   - ENVB*2040 [0.50] Biology of Plant Pests
   - ENVB*3210 [0.50] Plant Pathology
   - ENVB*3300 [0.50] Applied Ecology and Environment
   - ENVB*4100 [0.50] Applied Entomology
   - GEOG*3320 [0.50] Agriculture and Society
   - HORT*3260 [0.50] Woody Plants
   - PBIO*4100 [0.50] Soil Plant Relationships
   - PHIL*2070 [0.50] Philosophy of the Environment
   - REXT*2000 [0.50] Introduction to Rural Extension
   - SOAN*4220 [0.50] Canadian Rural Women
   - SOC*3380 [0.50] Society and Nature
   - SOC*4210 [0.50] Advanced Topics in Rural Sociology
   - SOIL*2200 [0.50] Environmental Issues in Agroecosystems
   - SOIL*3170 [0.50] Soil Processes in Landscape

2. A minimum of 7.00 credits must be at the 3000 level or higher, of which 5.00 credits must be in agricultural science and of which 3.50 credits must be at the 4000 level. Refer to Program Counsellor for list of agricultural science courses.

3. A humanities or social science course (0.50 credit) at the 2000 level or above from the College of Arts or College of Social and Applied Human Sciences.

**Note:** In this major there are fees charged to cover partial costs of some field trips. Students in need of financial assistance should approach the Chair of the department.

**Electives**

**List A - Preferred Electives in Humanities and Social Science**

0.50 credit at the 2000 level or above from the College of Arts or the College of Social and Applied Human Sciences.

**List B - Electives in Agricultural Science and Related Disciplines**

A list of faculty advisors for the following elective course groups is available from the Dean's Office, O.A.C.

**Agricultural Economics and Business**

*Department of Agricultural Economics and Business*

Business Management:

- AGEC*2220 [0.50] Financial Accounting
- AGEC*2230 [0.50] Management Accounting
- AGEC*3310 [0.50] Operations Management
- AGEC*3320 [0.50] Financial Management
- AGEC*4370 [0.50] Marketing Management

Farm Management:

- AGEC*2220 [0.50] Financial Accounting
- AGEC*2230 [0.50] Management Accounting
- AGEC*4220 [0.50] Advanced Farm Management
- AGEC*4500 [0.50] Decision Science

Finance:

- AGEC*2220 [0.50] Financial Accounting
- AGEC*2230 [0.50] Management Accounting
- AGEC*3320 [0.50] Financial Management
- ECON*3560 [0.50] Theory of Finance

Operations:

- AGEC*2220 [0.50] Financial Accounting
- AGEC*2230 [0.50] Management Accounting
- AGEC*3310 [0.50] Operations Management
- AGEC*4500 [0.50] Decision Science

Prices and Policy:

- AGEC*3030 [0.50] The Firm and Markets

- AGEC*4000 [0.50] Agricultural and Food Policy
- ECON*2770 [0.50] Introductory Mathematical Economics
- ECON*3740 [0.50] Introduction to Econometrics

Resource and Environmental Economics:

- AGEC*2700 [0.50] Survey of Natural Resource Economics
- AGEC*4290 [0.50] Land Economics
- AGEC*4310 [0.50] Resource Economics
- ECON*2410 [0.50] Intermediate Macroeconomics

Sales and Marketing:

- AGEC*4240 [0.50] Futures and Options Markets
- AGEC*4360 [0.50] Marketing Research
- AGEC*4370 [0.50] Marketing Management
- AGEC*4410 [0.50] Sales and Sales Management

**Agronomy**

*Department of Plant Agriculture, Crop Science Division, and Department of Land Resource Science*

Crop Management Systems:

- CROP*4220 [0.50] Cropping Systems
- CROP*4240 [0.50] Weed Science

One of:

- CROP*3300 [0.50] Grain Crops
- CROP*3310 [0.50] Protein and Oilseed Crops
- CROP*3340 [0.50] Managed Grasslands

Crop Physiology:

- BOT*4380 [0.50] Metabolism in the Whole Life of Plants
- PBIO*3110 [0.50] Crop Physiology
- PBIO*4100 [0.50] Soil Plant Relationships
- PBIO*4600 [0.75] Plant Environment Interaction and Stress Physiology

Plant Biotechnology:

- MBG*4160 [0.50] Plant Breeding
- PBIO*3750 [0.50] Plant Tissue Culture

One of:

- MBG*3100 [0.50] Plant Genetics
- PBIO*4030 [0.50] Plant Cell Biology

Plant Genetic Resources:

- MBG*3100 [0.50] Plant Genetics
- MBG*4160 [0.50] Plant Breeding

One of:

- MBG*4200 [0.50] Transmission Genetics
- MBG*4240 [0.50] Applied Molecular Genetics

Soil Management and Fertility:

- GEOL*4130 [0.50] Clay and Humic Chemistry
- SOIL*3060 [0.50] Environmental Soil Chemistry
- SOIL*3200 [0.50] Environmental Soil Biology

One of:

- CROP*4260 [0.50] Crop Science Field Trip
- SOIL*3600 [0.50] Remote Sensing
- SOIL*4090 [0.50] Soil Management
- SOIL*4110 [0.50] Natural Resources Management Field Camp

Waste Management/Agriculture:

- CHEM*3360 [0.50] Environmental Chemistry and Toxicology
- SOIL*3060 [0.50] Environmental Soil Chemistry
- SOIL*3200 [0.50] Environmental Soil Biology
- SOIL*4090 [0.50] Soil Management

Water Management/Agriculture:

- ENGG*2550 [0.50] Water Management
- GEOL*3060 [0.50] Groundwater
- SOIL*3070 [0.50] Environmental Soil Physics

**Animal and Poultry Science**

*Department of Animal and Poultry Science*

Animal Breeding:

- ANSC*4050 [0.50] Recombinant DNA in Animal Science
- MBG*3060 [0.50] Quantitative Genetics
- MBG*4030 [0.50] Animal Breeding Methods

Animal Nutrition:

- ANSC*3120 [0.50] Introduction to Animal Nutrition
- ANSC*4160 [0.25] Beef Cattle Nutrition
- ANSC*4170 [0.25] Dairy Cattle Nutrition
- ANSC*4180 [0.25] Poultry Nutrition
- ANSC*4190 [0.25] Swine Nutrition
- ANSC*4500 [0.25] Horse Nutrition
- ANSC*4510 [0.25] Pet Nutrition
- NUTR*3340 [0.50] Nutrition of Fish and Crustacea
- NUTR*3350 [0.50] Wildlife Nutrition

Animal Physiology and Behaviour:

- ANSC*4070 [0.50] Applied Animal Behaviour
TOX*3300 [0.50] Analytical Toxicology
TOX*2000 [0.50] Principles of Toxicology
BIOM*3090 [0.50] Principles of Pharmacology and Toxicology

Toxicology:
REXT*4020 [0.50] Rural Extension in Change and Development
REXT*3060 [0.50] International Communication
REXT*4020 [0.50] Rural Extension in Change and Development

Food Science
Department of Food Science
Food Business:
AGEC*4410 [0.50] Sales and Sales Management
AGEC*3100 [0.50] Fundamentals of Consumer Behaviour
AGEC*3500 [0.50] Quality Management
FOOD*4700 [0.50] Food Product Development

Food Science:
FOOD*4070 [0.50] Food Packaging
FOOD*4120 [0.50] Food Analysis
FOOD*4350 [0.50] Processing Plant Technology

Food Technology:
FOOD*4100 [0.50] Meat and Poultry Processing
FOOD*4400 [0.50] Dairy Processing
FOOD*4520 [0.50] Cereal Technology

Horticultural Science
Department of Plant Agriculture, Horticultural Science Division
Fruit/Vegetable Horticulture:
HORT*3280 [0.50] Greenhouse Production
HORT*3510 [0.50] Vegetable Production
HORT*4300 [0.50] Postharvest Physiology
HORT*4380 [0.50] Tropical and Sub-Tropical Horticultural Crops
HORT*4420 [0.50] Fruit Crops

Ornamental Horticulture:
HORT*3010 [0.50] Annual, Perennial and Indoor Plants - Identification and Use
HORT*3220 [0.50] Turf Management
HORT*3260 [0.50] Woody Plants
HORT*3340 [0.50] Culture of Plants
HORT*4250 [0.50] Nursery Production

Urban Horticulture & Environmental Management:
ENVB*2040 [0.50] Biology of Plant Pests
ENVB*3030 [0.50] Pesticides and the Environment
HORT*3010 [0.50] Annual, Perennial and Indoor Plants - Identification and Use
HORT*3340 [0.50] Culture of Plants

Interdepartmental/Interdisciplinary
Animal Health:
ANSC*3080 [0.50] Agricultural Animal Physiology
ANSC*4240 [0.50] Animal Health

Aquatic Health:
PATH*4100 [0.50] Diseases of Aquatic Animals
ZOO*4110 [0.50] Principles of Fish and Wild Life Management

Biotechnology:
MICR*4260 [0.50] Microbial Technology
PBIO*3750 [0.50] Plant Tissue Culture

International Development:
AGEC*4210 [0.50] World Agriculture and Economic Development
AGR*2500 [0.50] Field Trip in International Agriculture
AGR*4000 [0.50] Seminar in International Agriculture

Toxicology:
BIOM*3090 [0.50] Principles of Pharmacology and Toxicology
TOX*2000 [0.50] Principles of Toxicology
TOX*3300 [0.50] Analytical Toxicology

Land Resource Science
Agroforestry:
BOT*2050 [0.50] Plant Ecology
ENVB*2030 [0.50] Current Issues in Forest Science
ENVB*4780 [0.50] Forest Ecology
HORT*3260 [0.50] Woody Plants
SOIL*4090 [0.50] Soil Management

Atmospheric Science:
GEOG*2110 [0.50] Climate and the Biophysical Environment
MET*2020 [0.50] Agrometeorology
MET*2030 [0.50] Meteorology and Climatology
MET*3050 [0.50] Microclimatology
MET*4210 [0.50] Atmospheric Experimentation and Instrumentation
MET*4300 [0.50] Atmospheric Transport and Chemistry

Computer-Assisted Resource Analysis:
CIS*1500 [0.50] Introduction to Programming
GEOG*2480 [0.50] Mapping and GIS
GEOG*4480 [0.50] Applied Geographic Information Systems
SOIL*3600 [0.50] Remote Sensing
SOIL*4170 [0.50] Soil Processes in the Landscape

Natural Resource Management:
GEOG*3320 [0.50] Agriculture and Society
SOIL*3070 [0.50] Environmental Soil Physics
SOIL*3200 [0.50] Environmental Soil Biology
SOIL*4070 [0.50] Problems in Land Resource Science
SOIL*4090 [0.50] Soil Management
SOIL*4170 [0.50] Soil Processes in the Landscape

Rural Extension Studies
Communications:
GEOG*3320 [0.50] Agriculture and Society
REXT*3040 [0.50] Communication Process
REXT*3080 [0.50] Technology in Extension

Human Resource and Community Development:
REXT*2000 [0.50] Introduction to Rural Extension
REXT*3000 [0.50] Program Development and Evaluation
REXT*3100 [0.50] Teaching and Learning in Non-Formal Education
REXT*4100 [0.50] Leadership Development in Rural Organization
Bachelor of Science in Engineering [B.Sc.(Eng.)]

Program Information

Objectives of the Program

Students in this program obtain a liberal engineering education, which includes a comprehensive core of science, mathematics and engineering science that provides a strong foundation for engineering design and analysis. This enables students to undertake the solution of engineering problems in the areas of systems and computing, biological, environmental and water resources. Core subjects, combined with electives of professional engineers, provide an understanding of the connection between engineering and science, coupled with the interdisciplinary skills needed to address the problems and challenges faced by engineers in society today.

The curriculum includes a strong emphasis on engineering design. Students engage in engineering design throughout the program, and gain experience in computer aided design and modeling, conceptual design and physical construction. Emphasis is on teamwork and communications skills, as well as working on interdisciplinary projects.

Career opportunities are open in many segments of the economy. Examples are: consulting services to municipalities, utilities and industry; resource agencies in advisory, regulatory, planning and utilization; service industries of construction, power and water supply and public health; manufacturing, design of computer and control systems, hardware and software development; medical devices, pharmaceutical and food industries and industrial ergonomics; academic research and graduate studies within and without the field of engineering.

Many engineers assume management responsibilities after gaining experience in design, development and operations. The balance provided by liberal arts and engineering education allows graduates to enjoy a great deal of career mobility.

Accreditation

The baccalaureate degree programs in all engineering programs are accredited by the Canadian Engineering Accreditation Board of the Canadian Council of Professional Engineers. Graduates from accredited engineering programs have the educational requirements to apply for membership in the Professional Engineers, Ontario (PEO) and other provinces after a number of years of acceptable engineering experience and successful completion of a PEO examination in engineering law and ethics.

Requirements of the Program

Students combine their required courses in mathematics, physical sciences and engineering with additional credits providing the opportunity for specialization in: one of the programs; complementary studies courses; and elective subjects. A minimum of 23.50 credits must be obtained. At least 5.00 credits must be complementary studies, which consist of courses in the social sciences, arts, management, engineering economics and communication. They complement the technical content of the curriculum.

All credits are selected according to the schedule of studies for the program. Restrictions apply to the number of non-core credits which may be at the 1000 level. Further information on approved courses may be obtained from the B.Sc.(Eng.) Program Guide available from the director or program counsellor of the School of Engineering.

Programs

The choice of program is made at the time of application. Change of program requires the approval of the director.

The available programs are:

- Biological Engineering - the application of engineering to the control and management of biological processes, environments, and human factors in engineering design.
- Engineering Systems and Computing - the application of engineering to the design, operation and management of data sensing, transmission and, processing systems, and of control systems.
- Environmental Engineering - the application of engineering to protect and restore the environment, through the prevention and treatment of gaseous, liquid and solid wastes.
- Water Resources Engineering - the application of engineering to the control and management of water and soil resources to meet human needs while sustaining the natural environment.

The schedule of studies for each program is provided below but guidance in the selection of appropriate courses is available from the program counsellor of the School of Engineering.

Additional Course Requirements

Students lacking OAC courses are advised to consult the Recommendations and Notes in Section IV—Admission Information-B.Sc.(Eng.).

Continuation of Study

Students are advised to consult the regulations for continuation of study within the program which are outlined in detail in Section VIII, Undergraduate Degree Regulation & Procedures. Students will be ineligible to continue in the B.Sc. (Eng.) program and will not be readmitted to the degree program if the same course is failed three times.

Normally, students in the B.Sc. (Eng.) program will be permitted only one supplemental privilege during their studies. It will usually be granted for 3000 or 4000 level courses only.

Conditions for Graduation

To qualify for the degree the student must complete the courses required for a B.Sc. (Eng.) program, obtaining a minimum of 23.50 credits and must achieve an overall minimum cumulative average of at least 60% and a minimum cumulative average of at least 60% in all ENGG courses.

Co-operative Education

Students studying for the B.Sc. (Eng.) degree may participate in a Co-operative Education program following the completion of the first 4 semesters of study. The Co-operative Education program consists of a minimum of 4 semesters of experience in industry with employers who participate in the program. Reports and assignments are graded by a faculty supervisor with assistance from the employer. Evaluations of Co-op semesters are recorded on the student’s academic record. The Co-operative Education program provides an excellent opportunity for students to obtain work experience in industry directly related to their field of study. Interested students should consult their program counsellor.

Students wishing to participate in the Co-operative Education program should indicate their intention to do so by applying for admission to the Co-op program on entrance. Following the completion of semester 2, in-course applicants will be considered for admission to the Co-op program.

Successful applicants will:

1. have a minimum cumulative average of 70% in semesters 1 and 2
2. have successfully completed all of the credits required in the schedule of studies for semesters 1 and 2
3. be employable in Canada (i.e. be a Canadian citizen or a permanent resident in Canada)
4. have obtained the approval of their Co-op advisor in the school to participate in the program.
5. completed COOP*1100 is a requirement for entry into the first work term.

Please refer to Co-operative Education Program for Admission requirements into the Co-op Program.

<table>
<thead>
<tr>
<th>Co-op Work Schedule</th>
<th>Yr. 1</th>
<th>Yr. 2</th>
<th>Yr. 3</th>
<th>Yr. 4</th>
<th>Yr. 5</th>
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<td>Spring</td>
<td>work</td>
<td>work</td>
<td>work</td>
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</table>

All candidates must complete a minimum of 4 of the preceding 5 work terms.

Biological Engineering Program Regular and Co-op (BIOE/BIOE:C)

School of Engineering, College of Physical and Engineering Science

Students interested in problems requiring the application of knowledge from both the biological sciences and engineering will find a challenge as a Biological Engineer. This field of engineering relates to the control of technological processes with the aim of enhancing human, animal and plant life. The program encompasses the technologies of biotechnology, waste management, food engineering, and ergonomics. For example, a Biological Engineer concentrating on biotechnology might design and manage bioreactors enhancing human, animal and plant life. The program encompasses the technologies of biotechnology, waste management, food engineering, and ergonomics. For example, a Biological Engineer concentrating on biotechnology might design and manage bioreactors enhancing human, animal and plant life. The program encompasses the technologies of biotechnology, waste management, food engineering, and ergonomics. For example, a Biological Engineer concentrating on biotechnology might design and manage bioreactors enhancing human, animal and plant life. The program encompasses the technologies of biotechnology, waste management, food engineering, and ergonomics. For example, a Biological Engineer concentrating on biotechnology might design and manage bioreactors enhancing human, animal and plant life. The program encompasses the technologies of biotechnology, waste management, food engineering, and ergonomics. For example, a Biological Engineer concentrating on biotechnology might design and manage bioreactors enhancing human, animal and plant life. The program encompasses the technologies of biotechnology, waste management, food engineering, and ergonomics. For example, a Biological Engineer concentrating on biotechnology might design and manage bioreactors enhancing human, animal and plant life. The program encompasses the technologies of biotechnology, waste management, food engineering, and ergonomics. For example, a Biological Engineer concentrating on biotechnology might design and manage bioreactors enhancing human, animal and plant life. The program encompasses the technologies of biotechnology, waste management, food engineering, and ergonomics. For example, a Biological Engineer concentrating on biotechnology might design and manage bioreactors enhancing human, animal and plant life. The program encompasses the technologies of biotechnology, waste management, food engineering, and ergonomics. For example, a Biological Engineer concentrating on biotechnology might design and manage bioreactors enhancing human, animal and plant life. The program encompasses the technologies of biotechnology, waste management, food engineering, and ergonomics. For example, a Biological Engineer concentrating on biotechnology might design and manage bioreactors enhancing human, animal and plant life. The program encompasses the technologies of biotechnology, waste management, food engineering, and ergonomics. For example, a Biological Engineer concentrating on biotechnology might design and manage bioreactors enhancing human, animal and plant life. The program encompasses the technologies of biotechnology, waste management, food engineering, and ergonomics. For example, a Biological Engineer concentrating on biotechnology might design and manage bioreactors enhancing human, animal and plant life.

Major (Honours Program)

Semester 1 - Regular or Co-op

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<td>CHEM*1040</td>
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<tr>
<td>CIS*1500</td>
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<td>ENGG*1100</td>
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<td>HIST*1250</td>
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<td>MATH*1200</td>
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Semester 2 - Regular or Co-op

<table>
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<th>Course</th>
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<td>CHEM*1050</td>
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<tr>
<td>ENGG*1210</td>
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<tr>
<td>ENGG*1500</td>
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<tr>
<td>MATH*1210</td>
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<td>PHYS*1130</td>
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Semester 3 - Regular or Co-op

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<th>Course</th>
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<tr>
<td>ENGG*2100</td>
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<tr>
<td>ENGG*2120</td>
<td>0.50</td>
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<tr>
<td>ENGG*2160</td>
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</table>

2005-2006 University of Guelph Undergraduate Calendar

Last Revision: October 18, 2005
In recent years there has been concern about the degradation of the environment. The School of Engineering has responded to this concern by developing an Environmental Engineering program. Graduates will possess design and skills to minimize and prevent the impact of human activities on water, soil and air systems. Graduates will also creatively integrate humanistic and social perspectives in their solutions.

Major (Honours Program)

Semester 1 - Regular or Co-op

CHEM*1040 [0.50] General Chemistry I
CIS*1500 [0.50] Introduction to Programming
ENGG*1100 [0.75] Engineering and Design I
HIST*1250 [0.50] Science and Society Since 1500
MATH*1200 [0.50] Calculus I

Semester 2 - Regular or Co-op

CIS*1900 [0.50] Discrete Structures in Computer Science
CIS*2500 [0.50] Intermediate Programming
ENGG*1210 [0.50] Engineering Mechanics I
ENGG*1500 [0.50] Engineering Analysis
MATH*1210 [0.50] Calculus II
PHYS*1130 [0.50] Physics with Applications

Semester 3 - Regular or Co-op

CIS*2430 [0.50] Object Oriented Programming
COOP*1100 [0.00] Introduction to Co-operative Education
ENGG*2100 [0.75] Engineering and Design II
ENGG*2120 [0.50] Material Science
ENGG*2400 [0.50] Engineering Systems Analysis
ENGG*2410 [0.50] Digital Systems Design Using Descriptive Languages
MATH*2270 [0.50] Applied Differential Equations

Semester 4 - Regular or Co-op

CIS*3110 [0.50] Operating Systems
ENGG*2230 [0.50] Fluid Mechanics

Semester 5 - Regular or Co-op

ENGG*3240 [0.50] Engineering Economics
ENGG*4280 [0.75] Digital Process Control Design
1.00 elective

Restricted Electives (see Program Guide for more information)

- 2.00 credits in Complementary Studies Electives
- 0.75 credit in required Design Elective
- 1.00 credits in Biological Engineering Electives
- 1.00 credits in Life Science Electives
- 0.50 credits in Free electives

Environmental Engineering Program Regular and Co-op (ENVE/ENVE:C)

School of Engineering, College of Physical and Engineering Science.

In recent years there has been concern about the degradation of the environment. The School of Engineering has responded to this concern by developing an Environmental Engineering program. Graduates will possess design and skills to minimize and prevent the impact of human activities on water, soil and air systems. Graduates will also creatively integrate humanistic and social perspectives in their solutions.

Major (Honours Program)

Semester 1 - Regular or Co-op

CHEM*1040 [0.50] General Chemistry I
CIS*1500 [0.50] Introduction to Programming
ENGG*1100 [0.75] Engineering and Design I
HIST*1250 [0.50] Science and Society Since 1500
MATH*1200 [0.50] Calculus I

Semester 2 - Regular or Co-op

CIS*1900 [0.50] Discrete Structures in Computer Science
CIS*2500 [0.50] Intermediate Programming
ENGG*1210 [0.50] Engineering Mechanics I
ENGG*1500 [0.50] Engineering Analysis
MATH*1210 [0.50] Calculus II
PHYS*1130 [0.50] Physics with Applications

Semester 3 - Regular or Co-op

CIS*2430 [0.50] Object Oriented Programming
COOP*1100 [0.00] Introduction to Co-operative Education
ENGG*2100 [0.75] Engineering and Design II
ENGG*2120 [0.50] Material Science
ENGG*2400 [0.50] Engineering Systems Analysis
ENGG*2410 [0.50] Digital Systems Design Using Descriptive Languages
MATH*2270 [0.50] Applied Differential Equations

Semester 4 - Regular or Co-op

CIS*3110 [0.50] Operating Systems
ENGG*2230 [0.50] Fluid Mechanics

Semester 5 - Regular or Co-op

ENGG*3160 [0.50] Biological Engineering Systems II
ENGG*3170 [0.50] Biomaterials
ENGG*3240 [0.50] Engineering Economics
ENGG*3260 [0.50] Thermodynamics
ENGG*3430 [0.50] Electrical Devices
0.50 restricted elective

Semester 6 Regular / Semester 7 Co-op

ENGG*4280 [0.75] Digital Process Control Design
ENGG*4120 [1.00] Engineering Systems and Computing Design IV
ENGG*4280 [0.75] Digital Process Control Design
1.00 elective

Restricted Electives (see Program Guide for more information)

2.00 credits in Complementary Studies
1.50 credits in ES&C Engineering Electives
0.75 credits in Engineering Design Electives

X. Degree Programs, Bachelor of Science in Engineering [B.Sc.(Eng.)]
Water resources engineering students must complete the following restricted electives (see Program Guide for more information). You can take these courses where Restricted Electives are indicated in the schedule of courses. A maximum of three 1000 level electives is allowed. Restricted electives must include:

2.00 credits in Complementary Studies electives
0.50 credit in Free Elective
0.50 credit in Science/Engineering electives

One of:

- 0.50 credit in Science electives (if MICR*1020 is selected in Semester 3)
- BIOL*1040 (if BIOL*1030 is selected in Semester 3)

Note: The following courses should not be used as Free Electives:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM*2820</td>
<td>Thermodynamics and Kinetics</td>
</tr>
<tr>
<td>CHEM*2880</td>
<td>Physical Chemistry</td>
</tr>
<tr>
<td>GEOG*3620</td>
<td>Desert Environments</td>
</tr>
<tr>
<td>GEOL*3190</td>
<td>Environmental Water Chemistry</td>
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<tr>
<td>PHYS*1600</td>
<td>Contemporary Astronomy</td>
</tr>
<tr>
<td>SOIL*3070</td>
<td>Environmental Soil Physics</td>
</tr>
<tr>
<td>SOIL*3080</td>
<td>Soil and Water Conservation</td>
</tr>
<tr>
<td>TOX*3360</td>
<td>Environmental Chemistry and Toxicology</td>
</tr>
</tbody>
</table>

Minor (Honours Program)

Students must be registered in the B.Sc.(Eng.) degree program to apply for a Minor in Environmental Engineering.

The minor can be satisfied by taking the following additional courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL*2060</td>
<td>Ecology</td>
</tr>
<tr>
<td>BIOC*2580</td>
<td>Introductory Biochemistry</td>
</tr>
<tr>
<td>CHEM*3360</td>
<td>Environmental Chemistry and Toxicology</td>
</tr>
<tr>
<td>ENGG*3180</td>
<td>Air Quality</td>
</tr>
<tr>
<td>ENGG*3590</td>
<td>Water Quality</td>
</tr>
<tr>
<td>ENGG*4260</td>
<td>Water and Wastewater Treatment Design</td>
</tr>
<tr>
<td>GEOL*1300</td>
<td>Introduction to the Biophysical Environment</td>
</tr>
<tr>
<td>MICR*1020</td>
<td>Fundamentals of Applied Microbiology</td>
</tr>
<tr>
<td>MICR*4180</td>
<td>Microbial Processes in Environmental Management</td>
</tr>
</tbody>
</table>

One of:

- ENGG*2560 | Environmental Engineering Systems |
- ENGG*2660 | Biological Engineering Systems I |

Students must select an environmental application project for the design course in the student's major program.

Water Resources Engineering Program Regular and Co-op

School of Engineering, College of Physical and Engineering Science.

Water resources engineering focuses on the use and management of land and water resources in rural and urban watersheds. The hydrologic and hydraulic behaviour of watershed flow systems is combined with engineering science and. Water management includes flood prevention, warning and control; drainage; design of natural channels; irrigation; and erosion prevention and control. The supply of water for municipal, industrial and agricultural purposes is considered in the context of resource conservation. Identification of potential point and diffuse sources of pollutants is used to develop efficient, environmentally sustainable and economical methods to preserve high-quality water to sustain human life and water-dependent ecosystems.

Major (Honours Program)

Semester 1 - Regular or Co-op

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
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<tbody>
<tr>
<td>CHEM*1040</td>
<td>General Chemistry I</td>
</tr>
<tr>
<td>CIS*1500</td>
<td>Introduction to Programming</td>
</tr>
<tr>
<td>ENGG*1100</td>
<td>Engineering and Design I</td>
</tr>
<tr>
<td>HIST*1250</td>
<td>Science and Society Since 1500</td>
</tr>
<tr>
<td>MATH*1200</td>
<td>Calculus I</td>
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Semester 2 - Regular or Co-op

<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>CHEM*1050</td>
<td>General Chemistry II</td>
</tr>
<tr>
<td>ENGG*1210</td>
<td>Engineering Mechanics I</td>
</tr>
<tr>
<td>ENGG*1500</td>
<td>Engineering Analysis</td>
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<tr>
<td>MATH*1210</td>
<td>Calculus II</td>
</tr>
<tr>
<td>PHYS*1130</td>
<td>Physics with Applications</td>
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Semester 3 - Regular or Co-op

<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>COOP*1100</td>
<td>Introduction to Co-operative Education</td>
</tr>
<tr>
<td>ENGG*2100</td>
<td>Engineering and Design II</td>
</tr>
<tr>
<td>ENGG*2120</td>
<td>Material Science</td>
</tr>
<tr>
<td>ENGG*2400</td>
<td>Engineering Systems Analysis</td>
</tr>
<tr>
<td>GEOF*2000</td>
<td>Geomorphology</td>
</tr>
<tr>
<td>MATH*2270</td>
<td>Applied Differential Equations</td>
</tr>
<tr>
<td>MICR*1020</td>
<td>Fundamentals of Applied Microbiology</td>
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Semester 4 - Regular or Co-op

<table>
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<th>Course Code</th>
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<tr>
<td>ENGG*2230</td>
<td>Fluid Mechanics</td>
<td></td>
</tr>
<tr>
<td>ENGG*2450</td>
<td>Network Theory</td>
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</tr>
<tr>
<td>ENGG*2550</td>
<td>Water Management</td>
<td></td>
</tr>
<tr>
<td>ENGG*2560</td>
<td>Environmental Engineering Systems</td>
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<tr>
<td>MATH*2130</td>
<td>Numerical Methods</td>
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<tr>
<td>STAT*2120</td>
<td>Probability and Statistics for Engineers</td>
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Semester 5 - Regular or Co-op

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<tr>
<td>ENGG*3240</td>
<td>Engineering Economics</td>
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<tr>
<td>ENGG*3260</td>
<td>Thermodynamics</td>
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<tr>
<td>ENGG*3590</td>
<td>Water Quality</td>
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<td>ENGG*3650</td>
<td>Hydrology</td>
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Semester 6 Regular / Semester 7 Co-op

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<td>Hydrology</td>
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<tr>
<td>ENGG*3410</td>
<td>Engineering and Design III</td>
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</tr>
<tr>
<td>ENGG*3430</td>
<td>Systems and Control Theory</td>
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<tr>
<td>ENGG*3430</td>
<td>Heat and Mass Transfer</td>
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<tr>
<td>ENGG*3470</td>
<td>Urban Water Systems Design</td>
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Semester 7 Regular / Semester 6 Co-op

<table>
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<th>Course Code</th>
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<tr>
<td>ENGG*3670</td>
<td>Soil Mechanics</td>
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<tr>
<td>ENGG*4330</td>
<td>Air Pollution Control</td>
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<td>ENGG*4340</td>
<td>Solid and Hazardous Waste Management</td>
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</tr>
<tr>
<td>ENGG*4370</td>
<td>Mass Transfer Operations</td>
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Semester 8 - Regular or Co-op

<table>
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<th>Course Code</th>
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<tbody>
<tr>
<td>ENGG*4130</td>
<td>Environmental Engineering Design III</td>
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</tr>
<tr>
<td>ENGG*4260</td>
<td>Water and Wastewater Treatment Design</td>
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</tr>
<tr>
<td>GEOL*3060</td>
<td>Groundwater</td>
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</tbody>
</table>

Restricted Electives

Students must be registered in the B.Sc.(Eng.) degree program to apply for a Minor in Food Engineering.

The minor can be satisfied by taking the following additional courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Code</th>
<th>Course Name</th>
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</thead>
<tbody>
<tr>
<td>AGEC*2220</td>
<td>Financial Accounting</td>
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<tr>
<td>BIOC*2580</td>
<td>Introductory Biochemistry</td>
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<tr>
<td>ENGG*2660</td>
<td>Biological Engineering Systems I</td>
<td></td>
</tr>
<tr>
<td>ENGG*3830</td>
<td>Bio-Process Engineering</td>
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</tr>
<tr>
<td>FOOD*2150</td>
<td>Introduction to Nutritional and Food Science</td>
<td></td>
</tr>
<tr>
<td>MICR*1020</td>
<td>Fundamentals of Applied Microbiology</td>
<td></td>
</tr>
</tbody>
</table>

0.75 Biological Engineering Design Course*

One of:

- ENGG*4300 | Food Processing Engineering Design
- ENGG*4380 | Bioreactor Design

Food Engineering (FENG)

School of Engineering, College of Physical and Engineering Science.

Minor (Honours Program)

Students must be registered in the B.Sc.(Eng.) degree program to apply for a Minor in Food Engineering.

The minor can be satisfied by taking the following additional courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGEC*2220</td>
<td>Financial Accounting</td>
<td></td>
</tr>
<tr>
<td>BIOC*2580</td>
<td>Introductory Biochemistry</td>
<td></td>
</tr>
<tr>
<td>ENGG*2660</td>
<td>Biological Engineering Systems I</td>
<td></td>
</tr>
<tr>
<td>ENGG*3830</td>
<td>Bio-Process Engineering</td>
<td></td>
</tr>
<tr>
<td>FOOD*2150</td>
<td>Introduction to Nutritional and Food Science</td>
<td></td>
</tr>
<tr>
<td>MICR*1020</td>
<td>Fundamentals of Applied Microbiology</td>
<td></td>
</tr>
</tbody>
</table>

0.75 Biological Engineering Design Course*
COST*3010 [0.50] Quality Management
FOOD*4070 [0.50] Food Packaging
FOOD*4110 [0.50] Meat and Poultry Processing
One of:
FOOD*3160 [0.75] Food Processing I
FOOD*4520 [0.50] Cereal Technology
One of:
FOOD*2400 [0.50] Introduction to Food Chemistry
FOOD*3010 [0.50] Food Chemistry
FOOD*3230 [0.75] Food Microbiology
FOOD*3260 [0.50] Industrial Microbiology
*students must select a food application project for the design course in the student's major program

NOTE: Courses taken for the minors are credited to appropriate elective areas.
Bachelor of Science in Environmental Sciences
[B.Sc.(Env.)]

Program Information

Objectives of the Program
The Environmental Sciences Program is designed to provide a strong interdisciplinary grounding in specific environmental sciences including the socioeconomic context in which environmental issues are resolved.

There is an emphasis on management and decision-making skills for the application of scientific knowledge to environmental problems, and the evaluation of appropriate environmental policies. A practical problem solving perspective is central to the program, and this is often done in the context of group work.

Substantial emphasis is placed on communication skills, including the development of both good writing ability and oral communication ability. This is emphasized particularly in the Environmental Sciences core courses, starting in first year, and running through to fourth year. Students in the final years of their program will be expected to take part in more intensive communication skill development.

Graduates will seek employment in a range of fields, from government agencies to private industry and research.

Academic Counselling
General information on the degree program is available from the Program Counsellor, Faculty of Environmental Sciences. Advising for each major is available through the assigned faculty advisor responsible for the major. Students are encouraged to seek the advice of the faculty advisors when choosing for their Summer academic semester.

Degree
The degree granted for the successful completion of this honours program will be the Bachelor of Science in Environmental Sciences--B.Sc.(Env.).

Continuation of Study
Students are advised to consult the regulations for Continuation of Study in Section VIII--Undergraduate Degree Regulations and Procedures of this Calendar.

Conditions for Graduation
In order to qualify for graduation from the B.Sc.(Env.) program, the student must have completed successfully the stated course requirements for the program.

Environmental Sciences (Co-op)
Office of the Associate Dean, Faculty of Environmental Sciences.

A 5-year Honours Program in Environmental Sciences is offered as a Co-operative Education Program. This option is offered within the B.Sc. (Env.) degree and is available to all majors. The program requirements are the same as those listed for the regular B.Sc. (Env.) program, by the Co-operative Education Program and as outlined in the Continuation of Study policy (Section VIII--Undergraduate Degree Regulations & Procedures).

3 co-op work terms (COOP*1000, COOP*2000, COOP*3000) are required. An optional 4th co-op work term (COOP*4000) is available. COOP*1100 must be completed during the semester preceding COOP*1000 (ie. in semester 2).

322 X. Degree Programs, Bachelor of Science in Environmental Sciences [B.Sc.(Env.)]

First Year Curriculum
The first year courses have been selected to provide students with sufficient background and knowledge to enter any one of the Environmental Sciences majors.

Semester 1
BIOL*1030 [0.50] Biology I
CHEM*1300 [0.50] Introductory Environmental Chemistry
ENVS*1010 [0.50] Introduction to Environmental Sciences
MATH*1080 [0.50] Elements of Calculus I
PHYS*1080 [0.50] Physics for Life Sciences

Semester 2
BIOL*1040 [0.50] Biology II
CHEM*1310 [0.50] Introductory Environmental Chemistry II
ECON*1050 [0.50] Introduction to Microeconomics
GEOG*1300 [0.50] Introduction to Biophysical Environment
PHYS*1130 [0.50] Physics with Applications

*Co-op students must select COOP*1100 Introduction to Co-operative Education

Environmental Sciences Core
In addition to the common first year curriculum, students are required to take the following core Environmental Sciences courses in the semesters recommended below:

BIOL*2060 [0.50] Ecology
ENVS*2100 [0.50] Decision-making and Communication Skills
ENVS*4011/2 [0.50] Colloquium/Project in Environmental Sciences
PHIL*2070 [0.50] Philosophy of the Environment

Note: BIOL*2060 is to be taken in Semester 3 or 4, ENVS*2100 is to be taken in Semester 3, the series ENVS*4011, ENVS*4012 is to be taken consecutively during the last complete academic year (F-W) Semester 7/8 or Semester 6/7 (Co-op), and PHIL*2070 is to be taken in Semester 4, 5 or 6 (preferential is earlier in program).

One of:
AGEC*2700 [0.50] Survey of Natural Resource Economics
ECON*2100 [0.50] Economic Growth and Environmental Quality

Note: Either AGEC*2700 or ECON*2100 is to be taken in Semester 3.

One of:
GEOG*3210 [0.50] Management of the Biophysical Environment
POLS*3370 [0.50] Environmental Policy Formation and Administration
ZOO*4050 [0.50] Natural Resources Policy

Note: One of GEOG*3210 and POLS*3370 are to be taken in Semester 4 or 6 or ZOO*4050 is to be taken in Semester 7 or 8.

Environmental Sciences Majors
Earth and Atmospheric Science
Ecology
Environmental Economics and Policy
Environmental Geography
Environmental Monitoring and Analysis
Environmental Protection
Environmetrics

Natural Resources Management

Requirements for each of these majors are described in the detailed schedules of studies below.

Area of Emphasis Requirements
All students must choose an area of emphasis consisting of a minimum of 2.50 credits in a particular topic area. These are listed after "Schedules of Studies". The sequence of courses normally begins in third year. With the approval of the Program Counsellor, students may develop their own area of emphasis. All areas of emphasis must be approved by the Program Counsellor. Students should note that entry to certain areas of emphasis is restricted by the student's choice of major. Thus program approval should be gained before registering in courses to count towards their area of emphasis.

Earth and Atmospheric Science (EAAS)

Department of Land Resource Science, Ontario Agricultural College.

Major
Please note that not all courses in the "One of:" options are available each semester (F, W, S). Students are encouraged to seek advice from the appropriate advisor when selecting and scheduling courses.

Semester 1
BIOL*1030 [0.50] Biology I
CHEM*1300 [0.50] Introductory Environmental Chemistry
ENVS*1010 [0.50] Introduction to Environmental Sciences
MATH*1080 [0.50] Elements of Calculus I
PHYS*1080 [0.50] Physics for Life Sciences
**Semester 2**

- BIOL*1040 [0.50] Biology II
- CHEM*1310 [0.50] Introductory Environmental Chemistry II
- ECON*1050 [0.50] Introductory Microeconomics
- GEOG*1300 [0.50] Introduction to the Biophysical Environment
- PHYS*1130 [0.50] Physics with Applications

**Semester 3**

- GEOL*1050 [0.50] Geology and the Environment
- MET*2030 [0.50] Meteorology and Climatology
- STAT*2040 [0.50] Statistics I

1.00 core requirements or electives

**Semester 4**

- SOIL*2010 [0.50] Soil Science

2.00 core requirements or electives

**Semester 5**

- GEOL*2110 [0.50] Earth Material Science

1.50 core requirements, restricted electives or electives

One of:
- MATH*1210 [0.50] Calculus II
- MATH*2080 [0.50] Elements of Calculus II
- STAT*2050 [0.50] Statistics II

**Semester 6**

- SOIL*3600 [0.50] Remote Sensing

1.50 core requirements, restricted electives or electives

One of:
- GEOL*3060 [0.50] Groundwater
- SOIL*3070 [0.50] Environmental Soil Physics

**Semester 7**

- SOIL*4210 [0.50] Earth and Atmospheric Science Field Camp

2.00 core requirements, restricted electives or electives

**Semester 8**

- SOIL*4210 [0.50] Earth and Atmospheric Science Field Camp

2.50 core requirements, restricted electives or electives

**Restricted Electives**

Students in the Earth and Atmospheric Science major are required to choose 2.50 credits from the following lists. Students are encouraged to consult with the faculty advisor for assistance.

**List A - Environmental Geology**

- GEOL*2020 [0.50] Stratigraphy
- GEOL*2200 [0.50] Glacial Geology
- GEOL*3100 [0.50] Non-Renewable Earth Resources
- GEOL*3130 [0.50] Agrogeology
- GEOL*4090 [0.50] Sedimentology
- GEOL*4130 [0.50] Clay and Humic Chemistry

**List B - Soil Science**

- PBIO*4100 [0.50] Soil Plant Relationships
- SOIL*3060 [0.50] Environmental Soil Chemistry
- SOIL*3070 [0.50] Environmental Soil Physics
- SOIL*3080 [0.50] Soil and Water Conservation
- SOIL*3170 [0.50] Soil Processes in Landscape
- SOIL*3200 [0.50] Environmental Soil Biology
- SOIL*4090 [0.50] Soil Management

**List C - Water**

- ENGG*2550 [0.50] Water Management
- ENGG*3650 [0.50] Hydrology
- GEOG*3610 [0.50] Environmental Hydrology
- GEOG*4150 [0.50] Sedimentary Processes
- GEOL*3190 [0.50] Environmental Water Chemistry

**Earth and Atmospheric Science (EAAS:C)**

Department of Land Resource Science, Ontario Agricultural College.

**Major**

Please note that not all courses in the "One of:" options are available each semester (F, W, S). Students are encouraged to seek advice from the appropriate advisor when selecting and scheduling courses.

In this major there are fees charged to cover partial costs of some field trips. Students in need of financial assistance should approach the Chair of the department offering the course.

**Semester 1 - Fall**

- BIOL*1030 [0.50] Biology I
- CHEM*1300 [0.50] Introductory Environmental Chemistry
- ENVS*1010 [0.50] Introduction to Environmental Sciences
- MATH*1080 [0.50] Elements of Calculus I
- PHYS*1080 [0.50] Physics for Life Sciences

**Semester 2 - Winter**

- BIOL*1040 [0.50] Biology II
- CHEM*1310 [0.50] Introductory Environmental Chemistry II
- COOP*1100 [0.00] Introduction to Co-operative Education
- ECON*1050 [0.50] Introductory Microeconomics
- GEOG*1300 [0.50] Introduction to the Biophysical Environment
- PHYS*1130 [0.50] Physics with Applications

**Semester 3 - Fall**

- GEOL*1050 [0.50] Geology and the Environment
- MET*2030 [0.50] Meteorology and Climatology
- STAT*2040 [0.50] Statistics I

1.00 core requirements or electives

**Winter Semester**

- COOP*1000 [0.00] Co-op Work Term I

**Semester 4 - Summer**

- SOIL*2010 [0.50] Soil Science

1.50 core requirements, restricted electives or electives

One of:
- MATH*1210 [0.50] Calculus II
- MATH*2080 [0.50] Elements of Calculus II
- STAT*2050 [0.50] Statistics II

**Semester 5 - Winter**

- COOP*2000 [0.00] Co-op Work Term II

**Semester 6 - Fall**

- SOIL*3600 [0.50] Remote Sensing

1.50 core requirements, restricted electives or electives

One of:
- GEOL*3060 [0.50] Groundwater
- SOIL*3070 [0.50] Environmental Soil Physics

**Summer Semester**

- COOP*3000 [0.00] Co-op Work Term III

**Semester 6- Fall**

- GEOL*2110 [0.50] Earth Material Science

2.00 core requirements, restricted electives or electives

**Semester 7- Winter**

- SOIL*4210 [0.50] Earth and Atmospheric Science Field Camp

2.50 core requirements, restricted electives or electives

**Summer Semester (Optional)**

- COOP*4000 [0.00] Co-op Work Term IV

**Semester 8**

- SOIL*4210 [0.50] Earth and Atmospheric Science Field Camp

2.00 core requirements, restricted electives or electives

**Restricted Electives**

Students in the Earth and Atmospheric Science major are required to choose 2.50 credits from the following lists. Students are encouraged to consult with the faculty advisor for assistance.

**List A - Environmental Geology**

- GEOL*2020 [0.50] Stratigraphy
- GEOL*2200 [0.50] Glacial Geology
- GEOL*3100 [0.50] Non-Renewable Earth Resources
- GEOL*3130 [0.50] Agrogeology
- GEOL*4090 [0.50] Sedimentology
- GEOL*4130 [0.50] Clay and Humic Chemistry

**List B - Soil Science**

- PBIO*4100 [0.50] Soil Plant Relationships
- SOIL*3060 [0.50] Environmental Soil Chemistry
- SOIL*3070 [0.50] Environmental Soil Physics
- SOIL*3080 [0.50] Soil and Water Conservation
- SOIL*3170 [0.50] Soil Processes in Landscape
- SOIL*3200 [0.50] Environmental Soil Biology
- SOIL*4090 [0.50] Soil Management

**List C - Water**

- ENNG*2550 [0.50] Water Management
- ENNG*3650 [0.50] Hydrology
- GEOG*3610 [0.50] Environmental Hydrology
- GEOG*4150 [0.50] Sedimentary Processes
- GEOL*3190 [0.50] Environmental Water Chemistry

**List D - Atmosphere**

- MET*2030 [0.50] Microclimatology
- MET*4210 [0.50] Atmospheric Experimentation and Instrumentation
- MET*4300 [0.50] Atmospheric Transport and Chemistry

X. Degree Programs, Bachelor of Science in Environmental Sciences [B.Sc.(Env.)]
<table>
<thead>
<tr>
<th>Semester</th>
<th>Courses</th>
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</thead>
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<tr>
<td><strong>Semester 1</strong></td>
<td>BIOL*1030 [0.50]</td>
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<tr>
<td></td>
<td>CHEM*1300 [0.50]</td>
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<tr>
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<td>ENVS*1010 [0.50]</td>
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<td>MATH*1080 [0.50]</td>
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<td>PHYS*1080 [0.50]</td>
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<tr>
<td><strong>Semester 2</strong></td>
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<tr>
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<td>CHEM*1310 [0.50]</td>
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<td>ENVS*1010 [0.50]</td>
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<td>MATH*1080 [0.50]</td>
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<td>PHYS*1080 [0.50]</td>
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<td><strong>Semester 3</strong></td>
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<td><strong>Semester 4</strong></td>
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<td><strong>Semester 5</strong></td>
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<td></td>
<td>CHEM*4110 [0.50]</td>
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<td><strong>Semester 6</strong></td>
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<td>CHEM*4110 [0.50]</td>
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<tr>
<td><strong>Semester 7</strong></td>
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<td>CHEM*5100 [0.50]</td>
</tr>
<tr>
<td><strong>Semester 8</strong></td>
<td>BIOL*6100 [0.50]</td>
</tr>
<tr>
<td></td>
<td>CHEM*6100 [0.50]</td>
</tr>
</tbody>
</table>

**Note:** Ecology majors are not required to complete BIOL*2060 as a core course.

### College of Biological Science

#### Major

Please note that not all courses in the "One of:" options are available each semester (F, W, S). Students are encouraged to seek advice from the appropriate advisor when selecting and scheduling courses.

<table>
<thead>
<tr>
<th>Semester 1 - Fall</th>
<th>Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL*1030 [0.50]</td>
<td>Biology I</td>
</tr>
<tr>
<td>CHEM*1300 [0.50]</td>
<td>Introductory Environmental Chemistry</td>
</tr>
<tr>
<td>ENVS*1010 [0.50]</td>
<td>Introduction to Environmental Sciences</td>
</tr>
<tr>
<td>MATH*1080 [0.50]</td>
<td>Elements of Calculus I</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Semester 2</th>
<th>Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL*1040 [0.50]</td>
<td>Biology II</td>
</tr>
<tr>
<td>CHEM*1310 [0.50]</td>
<td>Introductory Environmental Chemistry II</td>
</tr>
<tr>
<td>ENVS*1010 [0.50]</td>
<td>Introduction to Environmental Sciences</td>
</tr>
<tr>
<td>MATH*1080 [0.50]</td>
<td>Elements of Calculus I</td>
</tr>
<tr>
<td>ECON*1050 [0.50]</td>
<td>Introductory Microeconomics</td>
</tr>
</tbody>
</table>

**Note:** Ecology majors are not required to complete BIOL*2060 as a core course.
### X. Degree Programs, Bachelor of Science in Environmental Sciences [B.Sc.(Env.)]

#### Environmental Geography (ENVG)

Department of Geography, College of Social and Applied Human Sciences.

**Major**

Please note that not all courses in the "One of:" options are available each semester (F, W, S). Students are encouraged to seek advice from the appropriate advisor when selecting and scheduling courses.

<table>
<thead>
<tr>
<th>Semester</th>
<th>Course Code</th>
<th>Credits</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Semester 1 - Fall</strong></td>
<td>BIOL*1030</td>
<td>[0.50]</td>
<td>Biology I</td>
</tr>
<tr>
<td></td>
<td>CHEM*1300</td>
<td>[0.50]</td>
<td>Introductory Environmental Chemistry</td>
</tr>
<tr>
<td></td>
<td>ENV*1010</td>
<td>[0.50]</td>
<td>Introduction to Environmental Sciences</td>
</tr>
<tr>
<td></td>
<td>MATH*1080</td>
<td>[0.50]</td>
<td>Elements of Calculus I</td>
</tr>
<tr>
<td></td>
<td>PHYS*1080</td>
<td>[0.50]</td>
<td>Physics for Life Sciences</td>
</tr>
<tr>
<td><strong>Semester 2 - Winter</strong></td>
<td>BIOL*1040</td>
<td>[0.50]</td>
<td>Biology II</td>
</tr>
<tr>
<td></td>
<td>CHEM*1310</td>
<td>[0.50]</td>
<td>Introductory Environmental Chemistry II</td>
</tr>
<tr>
<td></td>
<td>COOP*1100</td>
<td>[0.00]</td>
<td>Introduction to Co-operative Education</td>
</tr>
<tr>
<td></td>
<td>ECON*1050</td>
<td>[0.50]</td>
<td>Introductory Microeconomics</td>
</tr>
<tr>
<td></td>
<td>GEOG*1300</td>
<td>[0.50]</td>
<td>Introduction to the Biophysical Environment</td>
</tr>
<tr>
<td></td>
<td>PHYS*1130</td>
<td>[0.50]</td>
<td>Physics with Applications</td>
</tr>
<tr>
<td><strong>Semester 3 - Fall</strong></td>
<td>AGEC*2700</td>
<td>[0.50]</td>
<td>Survey of Natural Resource Economics</td>
</tr>
<tr>
<td></td>
<td>ECON*1100</td>
<td>[0.50]</td>
<td>Introductory Macroeconomics</td>
</tr>
<tr>
<td></td>
<td>ECON*2100</td>
<td>[0.50]</td>
<td>Economic Growth and Environmental Quality</td>
</tr>
<tr>
<td><strong>Winter Semester</strong></td>
<td>COOP*1000</td>
<td>[0.00]</td>
<td>Co-op Work Term I</td>
</tr>
<tr>
<td><strong>Semester 4 - Summer</strong></td>
<td>ECON*2310</td>
<td>[0.50]</td>
<td>Intermediate Microeconomics</td>
</tr>
<tr>
<td></td>
<td>ECON*2410</td>
<td>[0.50]</td>
<td>Intermediate Macroeconomics</td>
</tr>
<tr>
<td></td>
<td>STAT*2040</td>
<td>[0.50]</td>
<td>Statistics I</td>
</tr>
<tr>
<td><strong>Fall Semester</strong></td>
<td>COOP*2000</td>
<td>[0.00]</td>
<td>Co-op Work Term II</td>
</tr>
<tr>
<td><strong>Semester 5 - Winter</strong></td>
<td>ECON*2770</td>
<td>[0.50]</td>
<td>Introductory Mathematical Economics</td>
</tr>
</tbody>
</table>

#### Restricted Electives

Students in the Environmental Economics and Policy major are required to choose 2.00 credits additional Agricultural Economics and Business (AGEC*XXXX) or Economics (ECON*XXXX). Students are encouraged to seek advice on their choices and are reminded that 6.00 credits of their B.Sc.(Env.) degree must be at the 3000-4000 level.

<table>
<thead>
<tr>
<th>Semester</th>
<th>Course Code</th>
<th>Credits</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Summer Semester</strong></td>
<td>COOP*3000</td>
<td>[0.00]</td>
<td>Co-op Work Term III</td>
</tr>
<tr>
<td><strong>Semester 6 - Fall</strong></td>
<td>AGEC*4290</td>
<td>[0.50]</td>
<td>Land Economics *</td>
</tr>
<tr>
<td></td>
<td>ECON*3710</td>
<td>[0.50]</td>
<td>Advanced Microeconomics</td>
</tr>
<tr>
<td><strong>Summer Semester (Optional)</strong></td>
<td>COOP*4000</td>
<td>[0.00]</td>
<td>Co-op Work Term IV</td>
</tr>
<tr>
<td><strong>Semester 8</strong></td>
<td>ECON*4930</td>
<td>[0.50]</td>
<td>Environmental Economics</td>
</tr>
<tr>
<td></td>
<td>ECON*3710</td>
<td>[0.50]</td>
<td>Advanced Microeconomics ***</td>
</tr>
<tr>
<td></td>
<td>ECON*4930</td>
<td>[0.50]</td>
<td>Environmental Economics ***</td>
</tr>
<tr>
<td><strong>Semester 8</strong></td>
<td>AGEC*4310</td>
<td>[0.50]</td>
<td>Resource Economics</td>
</tr>
<tr>
<td></td>
<td>ECON*3740</td>
<td>[0.50]</td>
<td>Introduction to Econometrics</td>
</tr>
</tbody>
</table>

**Environmental Geography (ENVG)**

Department of Geography, College of Social and Applied Human Sciences.

### Department of Economics, College of Social and Applied Human Sciences.

#### Department of Agricultural Economics and Business, Ontario Agricultural College.

**Major**

Please note that not all courses in the "One of:" options are available each semester (F, W, S). Students are encouraged to seek advice from the appropriate advisor when selecting and scheduling courses.

<table>
<thead>
<tr>
<th>Semester</th>
<th>Course Code</th>
<th>Credits</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Semester 1 - Fall</strong></td>
<td>BIOL*1030</td>
<td>[0.50]</td>
<td>Biology I</td>
</tr>
<tr>
<td></td>
<td>CHEM*1300</td>
<td>[0.50]</td>
<td>Introductory Environmental Chemistry</td>
</tr>
<tr>
<td></td>
<td>ENVS*1010</td>
<td>[0.50]</td>
<td>Introduction to Environmental Sciences</td>
</tr>
<tr>
<td></td>
<td>MATH*1080</td>
<td>[0.50]</td>
<td>Elements of Calculus I</td>
</tr>
<tr>
<td></td>
<td>PHYS*1080</td>
<td>[0.50]</td>
<td>Physics for Life Sciences</td>
</tr>
<tr>
<td><strong>Semester 2 - Winter</strong></td>
<td>BIOL*1040</td>
<td>[0.50]</td>
<td>Biology II</td>
</tr>
<tr>
<td></td>
<td>CHEM*1310</td>
<td>[0.50]</td>
<td>Introductory Environmental Chemistry II</td>
</tr>
<tr>
<td></td>
<td>ECON*1050</td>
<td>[0.50]</td>
<td>Introductory Microeconomics</td>
</tr>
<tr>
<td></td>
<td>GEOG*1300</td>
<td>[0.50]</td>
<td>Introduction to the Biophysical Environment</td>
</tr>
<tr>
<td></td>
<td>PHYS*1130</td>
<td>[0.50]</td>
<td>Physics with Applications</td>
</tr>
<tr>
<td><strong>Semester 3</strong></td>
<td>GEOG*2110</td>
<td>[0.50]</td>
<td>Climate and the Biophysical Environment</td>
</tr>
<tr>
<td></td>
<td>GEOF*2110</td>
<td>[0.50]</td>
<td>Geography Field Research</td>
</tr>
<tr>
<td></td>
<td>GEOF*3000</td>
<td>[0.50]</td>
<td>GIS and Spatial Analysis</td>
</tr>
<tr>
<td><strong>Semester 4</strong></td>
<td>GEOF*3480</td>
<td>[0.50]</td>
<td>GIS and Spatial Analysis</td>
</tr>
<tr>
<td><strong>Semester 5</strong></td>
<td>GEOF*3110</td>
<td>[0.50]</td>
<td>Biotic and Natural Resources</td>
</tr>
<tr>
<td></td>
<td>GEOF*3210</td>
<td>[0.50]</td>
<td>Management of the Biophysical Environment *</td>
</tr>
<tr>
<td><strong>Semester 6</strong></td>
<td>GEOF*4690</td>
<td>[1.00]</td>
<td>Geography Field Research</td>
</tr>
<tr>
<td><strong>Semester 7</strong></td>
<td>GEOF*4880</td>
<td>[0.50]</td>
<td>Contemporary Geographic Thought</td>
</tr>
<tr>
<td><strong>Semester 8</strong></td>
<td>GEOF*3000</td>
<td>[0.50]</td>
<td>Fluvial Processes</td>
</tr>
<tr>
<td></td>
<td>GEOF*3610</td>
<td>[0.50]</td>
<td>Environmental Hydrology</td>
</tr>
</tbody>
</table>

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* Note: Environmental Geography majors are required to complete GEOF*3210 and (POLS*3370 or ZOO*4050). ** students in the Environmental Geography major must take at least 4 additional geography courses at the 3000-4000 level including:

At least 1 of:

- GEOF*3000 [0.50] Fluvial Processes
- GEOF*3610 [0.50] Environmental Hydrology
Environmental Geography (ENVG:C)
Department of Geography, College of Social and Applied Human Sciences.

Major
Please note that not all courses in the "One of:" options are available each semester (F, W, S). Students are encouraged to seek advice from the appropriate advisor when selecting and scheduling courses.

Semester 1 - Fall
BIOL*1030 [0.50] Biology I
CHEM*1300 [0.50] Introductory Environmental Chemistry
ENVS*1010 [0.50] Introduction to Environmental Sciences
MATH*1080 [0.50] Elements of Calculus I
PHYS*1080 [0.50] Physics for Life Sciences

Semester 2 - Winter
BIOL*1040 [0.50] Biology II
CHEM*1310 [0.50] Introductory Environmental Chemistry II
COOP*1100 [0.00] Introduction to Co-operative Education
ECON*1050 [0.50] Introductory Microeconomics
GEOG*1300 [0.50] Introduction to the Biophysical Environment
PHYS*1130 [0.50] Physics with Applications

Semester 3 - Fall
GEOG*2000 [0.50] Geomorphology
GEOG*2460 [0.50] Analysis in Geography
1.50 core requirements or electives

Winter Semester
COOP*1000 [0.00] Co-op Work Term I

Semester 4 - Summer
GEOG*2110 [0.50] Climate and the Biophysical Environment
2.00 core requirements or electives

Fall Semester
COOP*2000 [0.00] Co-op Work Term II

Semester 5 - Winter
GEOG*2210 [0.50] Environment and Resources
GEOG*2480 [0.50] Mapping and GIS
1.50 core requirements, restricted electives** or electives

Summer Semester
COOP*3000 [0.00] Co-op Work Term III

Semester 6 - Fall
GEOG*3110 [0.50] Biotic and Natural Resources
GEOG*3210 [0.50] Management of the Biophysical Environment *
GEOG*3480 [0.50] GIS and Spatial Analysis
1.00 core requirements, restricted electives** or electives

Semester 7 - Winter
GEOG*4880 [0.50] Contemporary Geographic Thought
2.00 core requirements, restricted electives** or electives

Summer Semester (Optional)
COOP*4000 [0.00] Co-op Work Term IV

Semester 8 - Fall
GEOG*4690 [1.00] Geography Field Research
1.50 core requirements, restricted electives ** or electives.
OR
0.50 credits in Geography at the 3000-4000 level.
2.00 core requirements, restricted electives** or electives.
* Note: Environmental Geography major are required to complete GEOG*3210 and (POLS*3370 or ZOOG*4050).
** students in the Environmental Geography major must take at least 4 additional geography courses at the 3000-4000 level including:
At least 1 of:
GEOG*3000 [0.50] Fluvial Processes
GEOG*3610 [0.50] Environmental Hydrology
GEOG*3620 [0.50] Desert Environments
At least 2 of:
GEOG*3020 [0.50] Global Environmental Change
GEOG*4110 [0.50] Environmental Systems Analysis
GEOG*4210 [0.50] Environmental Resource Analysis

Environmental Monitoring and Analysis (EMA)
College of Physical and Engineering Science.

Major
Please note that not all courses in the "One of:" options are available each semester (F, W, S). Students are encouraged to seek advice from the appropriate advisor when selecting and scheduling courses.

Semester 1
BIOL*1030 [0.50] Biology I
CHEM*1300 [0.50] Introductory Environmental Chemistry
ENVS*1010 [0.50] Introduction to Environmental Sciences
MATH*1080 [0.50] Elements of Calculus I
PHYS*1080 [0.50] Physics for Life Sciences

Semester 2
BIOL*1040 [0.50] Biology II
CHEM*1310 [0.50] Introductory Environmental Chemistry II
ECON*1050 [0.50] Introductory Microeconomics
GEOG*1300 [0.50] Introduction to the Biophysical Environment
PHYS*1130 [0.50] Physics with Applications

Semester 3
CHEM*2300 [0.50] Chemical Reactivity
MATH*2080 [0.50] Elements of Calculus II
MET*2030 [0.50] Meteorology and Climatology
1.00 core requirements or electives

Semester 4
BIOC*2580 [0.50] Introductory Biochemistry
CHEM*2480 [0.50] Analytical Chemistry I
PHYS*2040 [0.50] Fundamental Electronics and Sensors
STAT*2040 [0.50] Statistics I
One of:
CIS*1200 [0.50] Introduction to Computing
CIS*1500 [0.50] Introduction to Programming

Semester 5
PHYS*2550 [0.50] Radiation and the Environment *
STAT*2050 [0.50] Statistics II
TOX*2000 [0.50] Principles of Toxicology
1.00 core requirements or electives

Semester 6
PHYS*3080 [0.50] Energy
STAT*3510 [0.50] Environmental Risk Assessment
1.00 core requirement or electives
One of:
MET*4210 [0.50] Atmospheric Experimentation and Instrumentation
MET*4300 [0.50] Atmospheric Transport and Chemistry

Semester 7
ENVS*3360 [0.50] Waste Management and Utilization
TOX*3300 [0.50] Analytical Toxicology
1.50 core requirement or electives

Semester 8
CHEM*4010 [0.50] Chemistry and Industry
2.00 core requirement or electives
* PHYS*2550 is offered in even numbered years.

Environmental Monitoring and Analysis (EMA:C)
College of Physical and Engineering Science.

Major
Please note that not all courses in the "One of:" options are available each semester (F, W, S). Students are encouraged to seek advice from the appropriate advisor when selecting and scheduling courses.

Semester 1
BIOL*1030 [0.50] Biology I
CHEM*1300 [0.50] Introductory Environmental Chemistry
ENVS*1010 [0.50] Introduction to Environmental Sciences
MATH*1080 [0.50] Elements of Calculus I
PHYS*1080 [0.50] Physics for Life Sciences

Semester 2
BIOL*1040 [0.50] Biology II
CHEM*1310 [0.50] Introductory Environmental Chemistry II
ECON*1050 [0.50] Introductory Microeconomics
GEOG*1300 [0.50] Introduction to the Biophysical Environment
PHYS*1130 [0.50] Physics with Applications

Semester 3
CHEM*2300 [0.50] Chemical Reactivity
MATH*2080 [0.50] Elements of Calculus II
MET*2030 [0.50] Meteorology and Climatology
1.00 core requirements or electives

Semester 4
BIOC*2580 [0.50] Introductory Biochemistry
CHEM*2480 [0.50] Analytical Chemistry I
PHYS*2040 [0.50] Fundamental Electronics and Sensors
STAT*2040 [0.50] Statistics I
One of:
CIS*1200 [0.50] Introduction to Computing
CIS*1500 [0.50] Introduction to Programming

Semester 5
PHYS*2550 [0.50] Radiation and the Environment *
STAT*2050 [0.50] Statistics II
TOX*2000 [0.50] Principles of Toxicology
1.00 core requirements or electives

Semester 6
PHYS*3080 [0.50] Energy
STAT*3510 [0.50] Environmental Risk Assessment
1.00 core requirement or electives
One of:
MET*4210 [0.50] Atmospheric Experimentation and Instrumentation
MET*4300 [0.50] Atmospheric Transport and Chemistry

Semester 7
ENVS*3360 [0.50] Waste Management and Utilization
TOX*3300 [0.50] Analytical Toxicology
1.50 core requirement or electives

Semester 8
CHEM*4010 [0.50] Chemistry and Industry
2.00 core requirement or electives
* PHYS*2550 is offered in even numbered years.
1.00 core requirements or electives

**Winter Semester**

COOP*1000 [0.00] Co-op Work Term I

**Semester 4 - Summer**

BIOL*2580 [0.50] Introductory Biochemistry
CHEM*2480 [0.50] Analytical Chemistry I
STAT*2040 [0.50] Statistics I

0.50 core requirements or electives

One of:

- CIS*1200 [0.50] Introduction to Computing
- CIS*1500 [0.50] Introduction to Programming

**Fall Semester**

COOP*2000 [0.00] Co-op Work Term II

**Semester 5 - Winter**

PHYS*3080 [0.50] Energy
STAT*2050 [0.50] Statistics II

1.00 core requirements or electives

One of:

- MET*4210 [0.50] Atmospheric Experimentation and Instrumentation
- MET*4300 [0.50] Atmospheric Transport and Chemistry

**Summer Semester**

COOP*3000 [0.00] Co-op Work Term III

**Semester 6 - Fall**

ENVS*3360 [0.50] Waste Management and Utilization
PHYS*2040 [0.50] Fundamental Electronics and Sensors
PHYS*2550 [0.50] Radiation and the Environment *
TOX*2000 [0.50] Principles of Toxicology

0.50 core requirements or electives

**Semester 7 - Winter**

CHEM*4010 [0.50] Chemistry and Industry
STAT*3510 [0.50] Environmental Risk Assessment

1.50 core requirements or electives

**Summer Semester (Optional)**

COOP*4000 [0.00] Co-op Work Term IV

**Semester 8**

TOX*3300 [0.50] Analytical Toxicology

2.00 core requirements or electives

* PHYS*2550 is offered in even numbered years.

**Environmental Protection (ENVP)**

Department of Environmental Biology, Ontario Agricultural College.

**Major**

Please note that not all courses in the "One of:" options are available each semester (F, W, S). Students are encouraged to seek advice from the appropriate advisor when selecting and scheduling courses.

**Semester 1 - Fall**

BIOL*1030 [0.50] Biology I
CHEM*1300 [0.50] Introductory Environmental Chemistry
ENVS*1010 [0.50] Introduction to Environmental Sciences
MATH*1080 [0.50] Elements of Calculus I
PHYS*1080 [0.50] Physics for Life Sciences

**Semester 2 - Winter**

CHEM*1310 [0.50] Introductory Environmental Chemistry II
COOP*1100 [0.00] Introduction to Co-operative Education
ECON*1050 [0.50] Introductory Microeconomics
GEOG*1300 [0.50] Introduction to the Biophysical Environment
PHYS*1130 [0.50] Physics with Applications

**Semester 3 - Fall**

CHEM*2300 [0.50] Chemical Reactivity
ENVS*2030 [0.50] Current Issues in Forest Science
STAT*2040 [0.50] Statistics I

1.00 core requirements or electives

**Winter Semester**

COOP*1000 [0.00] Co-op Work Term I

**Semester 4 - Summer**

BIOL*2580 [0.50] Introductory Biochemistry
BIOL*3450 [0.50] Introduction to Aquatic Environments
MBG*2000 [0.50] Introductory Genetics

1.00 core requirements or electives

**Fall Semester**

COOP*2000 [0.00] Co-op Work Term II

**Semester 5 - Winter**

ENVS*2010 [0.50] Food Production and the Environment
ENVS*3030 [0.50] Pesticides and the Environment

1.00 core requirements or electives

One of:

- BOT*2100 [0.50] Life Strategies of Plants
- ZOO*3200 [0.50] Comparative Animal Physiology I

**Summer Semester**

COOP*3000 [0.00] Co-op Work Term III

**Semester 6 - Fall**

BIOL*3560 [0.50] Structure and Function in Biochemistry
BIOL*4140 [0.50] Soil Microbiology and Biotechnology
MBG*4180 [0.50] Microbial Processes in Environmental Management

0.50 core requirements or electives

**Semester 7 - Winter**

ENVS*3300 [0.50] Applied Ecology and Environment
MICR*4140 [0.50] Soil Microbiology and Biotechnology
MICR*4180 [0.50] Microbial Processes in Environmental Management
ZOO*4350 [0.50] Biology of Polluted Waters

0.50 core requirements or electives

**Semester 8**

ENVS*4240 [0.50] Biological Activity of Pesticides

2.00 core requirements or electives

**Environmental Protection (ENVP:C)**

Department of Environmental Biology, Ontario Agricultural College.

**Major**

Please note that not all courses in the "One of:" options are available each semester (F, W, S). Students are encouraged to seek advice from the appropriate advisor when selecting and scheduling courses.

**Semester 1 - Fall**

BIOL*1030 [0.50] Biology I
CHEM*1300 [0.50] Introductory Environmental Chemistry
ENVS*1010 [0.50] Introduction to Environmental Sciences
MATH*1080 [0.50] Elements of Calculus I
PHYS*1080 [0.50] Physics for Life Sciences

**Semester 2 - Winter**

CHEM*1310 [0.50] Introductory Environmental Chemistry II
COOP*1100 [0.00] Introduction to Co-operative Education
ECON*1050 [0.50] Introductory Microeconomics
GEOG*1300 [0.50] Introduction to the Biophysical Environment
PHYS*1130 [0.50] Physics with Applications

**Semester 3 - Fall**

CHEM*2300 [0.50] Chemical Reactivity
ENVS*2030 [0.50] Current Issues in Forest Science
STAT*2040 [0.50] Statistics I

1.00 core requirements or electives

**Winter Semester**

COOP*1000 [0.00] Co-op Work Term I

**Semester 4 - Summer**

BIOL*2580 [0.50] Introductory Biochemistry
BIOL*3450 [0.50] Introduction to Aquatic Environments
MBG*2000 [0.50] Introductory Genetics

1.00 core requirements or electives

**Fall Semester**

COOP*2000 [0.00] Co-op Work Term II

**Semester 5 - Winter**

ENVS*2010 [0.50] Food Production and the Environment
ENVS*3030 [0.50] Pesticides and the Environment

1.00 core requirements or electives

One of:

- BOT*2100 [0.50] Life Strategies of Plants
- ZOO*3200 [0.50] Comparative Animal Physiology I

**Summer Semester**

COOP*3000 [0.00] Co-op Work Term III

**Semester 6 - Fall**

BIOL*3560 [0.50] Structure and Function in Biochemistry
ENVS*3300 [0.50] Applied Ecology and Environment
MET*2030 [0.50] Meteorology and Climatology

0.50 core requirements or electives

**Semester 7 - Winter**

ENVS*3300 [0.50] Applied Ecology and Environment
MICR*4140 [0.50] Soil Microbiology and Biotechnology
MICR*4180 [0.50] Microbial Processes in Environmental Management
ZOO*4350 [0.50] Biology of Polluted Waters

0.50 core requirements or electives

**Semester 8**

ENVS*4240 [0.50] Biological Activity of Pesticides

2.00 core requirements or electives
Environmetrics (ENVM)

Department of Mathematics and Statistics, College of Physical and Engineering Science.

Department of Computing and Information Science, College of Physical and Engineering Science.

Major

Please note that not all courses in the "One of:" options are available each semester (F, W, S). Students are encouraged to seek advice from the appropriate advisor when selecting and scheduling courses.

Semester 1

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>BIOL*1030</td>
<td>Biology I</td>
<td>0.50</td>
</tr>
<tr>
<td>CHEM*1300</td>
<td>Introductory Environmental Chemistry</td>
<td>0.50</td>
</tr>
<tr>
<td>ENVS*1010</td>
<td>Introduction to Environmental Sciences</td>
<td>0.50</td>
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<tr>
<td>MATH*1080</td>
<td>Elements of Calculus I</td>
<td>0.50</td>
</tr>
<tr>
<td>PHYS*1080</td>
<td>Physics for Life Sciences</td>
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Semester 2

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<th>Title</th>
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<tr>
<td>BIOL*1040</td>
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<tr>
<td>CHEM*1310</td>
<td>Introductory Environmental Chemistry II</td>
<td>0.50</td>
</tr>
<tr>
<td>ECON*1050</td>
<td>Introductory Microeconomics</td>
<td>0.50</td>
</tr>
<tr>
<td>GEOG*1300</td>
<td>Introduction to the Biophysical Environment</td>
<td>0.50</td>
</tr>
<tr>
<td>PHYS*1130</td>
<td>Physics with Applications</td>
<td>0.50</td>
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Semester 3

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
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<tbody>
<tr>
<td>CIS*1500</td>
<td>Introduction to Programming</td>
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<tr>
<td>STAT*2040</td>
<td>Statistics I</td>
<td>0.50</td>
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One of:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH*1210</td>
<td>Calculus II</td>
<td>0.50</td>
</tr>
<tr>
<td>MATH*2080</td>
<td>Elements of Calculus II</td>
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1.00 core requirements, restricted elective or elective

Note: Students in the Environmetrics major must consult the Environmetrics Faculty Advisor for course scheduling in semester 4 through 8.

Semester 4

<table>
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<tr>
<th>Course Code</th>
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<tr>
<td>MATH*2130</td>
<td>Numerical Methods</td>
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<tr>
<td>MATH*2170</td>
<td>Differential Equations I</td>
<td>0.50</td>
</tr>
<tr>
<td>STAT*2050</td>
<td>Statistics II</td>
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0.50 core requirements, restricted electives or electives

One of:

<table>
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<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>MATH*2150</td>
<td>Applied Matrix Algebra</td>
<td>0.50</td>
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<tr>
<td>MATH*2160</td>
<td>Linear Algebra I</td>
<td>0.50</td>
</tr>
</tbody>
</table>

Note: MATH*2160 is preferred for mathematics emphasis.

Semester 5

2.50 core requirements, restricted electives or electives

Semester 6

<table>
<thead>
<tr>
<th>Course Code</th>
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<th>Credits</th>
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<tr>
<td>MATH*3510</td>
<td>Biomathematics</td>
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<tr>
<td>STAT*3510</td>
<td>Environmental Risk Assessment</td>
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1.50 core requirements, restricted electives or electives

Semester 7

2.50 core requirements, restricted electives or electives

Semester 8

2.50 core requirements, restricted electives or electives

Restricted Electives

Students in the Environmetrics major are required to choose 3.50 credits of restricted electives. A minimum of 2.50 credits must be at the 3000/4000 level and of these a minimum of 1.00 must be at the 4000 level.

List

<table>
<thead>
<tr>
<th>Course Code</th>
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<th>Credits</th>
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<tbody>
<tr>
<td>MATH*2200</td>
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<td>MATH*2210</td>
<td>Advanced Calculus II</td>
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<tr>
<td>MATH*3100</td>
<td>Differential Equations II</td>
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<tr>
<td>MATH*3170</td>
<td>Partial Differential Equations and Special Functions</td>
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<td>MATH*3240</td>
<td>Operations Research</td>
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<td>MATH*4430</td>
<td>Advanced Numerical Methods</td>
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<td>MATH*4070</td>
<td>Case Studies in Modeling</td>
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<td>MATH*4510</td>
<td>Environmental Transport and Dynamics</td>
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<td>STAT*3100</td>
<td>Introductory Mathematical Statistics I</td>
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<td>STAT*3110</td>
<td>Introductory Mathematical Statistics II</td>
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<td>STAT*3240</td>
<td>Applied Regression Analysis</td>
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<td>STAT*3320</td>
<td>Sampling Theory with Applications</td>
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<td>STAT*4350</td>
<td>Applied Multivariate Statistical Methods</td>
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<td>Advanced Risk Analysis</td>
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<td>STAT*4340</td>
<td>Statistical Inference</td>
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<tr>
<td>STAT*4360</td>
<td>Applied Time Series Analysis</td>
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</table>

Environmetrics (ENVM:C)

Department of Mathematics and Statistics, College of Physical and Engineering Science.

Department of Computing and Information Science, College of Physical and Engineering Science.

Major

Please note that not all courses in the "One of:" options are available each semester (F, W, S). Students are encouraged to seek advice from the appropriate advisor when selecting and scheduling courses.

Semester 1 - Fall

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<td>MATH*1080</td>
<td>Elements of Calculus I</td>
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<tr>
<td>PHYS*1080</td>
<td>Physics for Life Sciences</td>
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Semester 2 - Winter

<table>
<thead>
<tr>
<th>Course Code</th>
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<td>Biology II</td>
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<td>Introductory Environmental Chemistry II</td>
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<tr>
<td>ECON*1050</td>
<td>Introductory Microeconomics</td>
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<td>GEOG*1300</td>
<td>Introduction to the Biophysical Environment</td>
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<tr>
<td>PHYS*1130</td>
<td>Physics with Applications</td>
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Semester 3 - Fall

<table>
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<tbody>
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1.00 core requirements, restricted elective or elective

Note: Students in the Environmetrics major must consult the Environmetrics Faculty Advisor for course scheduling in semester 4 through 8.

Winter Semester

<table>
<thead>
<tr>
<th>Course Code</th>
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Semester 4 - Summer

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<td>MATH*2130</td>
<td>Numerical Methods</td>
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<tr>
<td>MATH*2170</td>
<td>Differential Equations I</td>
<td>0.50</td>
</tr>
<tr>
<td>STAT*2050</td>
<td>Statistics II</td>
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1.00 core requirements, restricted electives or electives

Fall Semester

<table>
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<tr>
<th>Course Code</th>
<th>Title</th>
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<tr>
<td>COOP*2000</td>
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Semester 5 - Winter

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<th>Credits</th>
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<tr>
<td>STAT*3510</td>
<td>Environmental Risk Assessment</td>
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1.50 core requirements, restricted electives or electives

One of:

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Note: MATH*2160 is preferred for mathematics emphasis.

Summer Semester

<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>COOP*3000</td>
<td>Co-op Work Term III</td>
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Semester 6 - Fall

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<th>Credits</th>
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<tbody>
<tr>
<td>STAT*3510</td>
<td>Environmental Risk Assessment</td>
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2.50 core requirements, restricted electives or electives

Semester 7 - Winter

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
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<tbody>
<tr>
<td>MATH*3510</td>
<td>Biomathematics</td>
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2.00 core requirements, restricted electives or electives

Summer Semester (Optional)

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<th>Course Code</th>
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<tr>
<td>COOP*4000</td>
<td>Co-op Work Term IV</td>
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Semester 8

2.50 core requirements, restricted electives or electives

Restricted Electives

Students in the Environmetrics major are required to choose 3.50 credits of restricted electives. A minimum of 2.50 credits must be at the 3000/4000 level and of these a minimum of 1.00 must be at the 4000 level.
Natural Resources Management (NRM)

Department of Land Resource Science, Ontario Agricultural College.

Major

Please note that not all courses in the "One of:" options are available each semester (F, W, S). Students are encouraged to seek advice from the appropriate advisor when selecting and scheduling courses.

In this major there are fees charged to cover partial costs of some field trips. Students in need of financial assistance should approach the Chair of the department offering the course.

Semester 1 - Fall
BIOL*1030 [0.50] Biology I
CHEM*1300 [0.50] Introductory Environmental Chemistry
ENVS*1010 [0.50] Introduction to Environmental Sciences
MATH*1080 [0.50] Elements of Calculus I
PHYS*1080 [0.50] Physics for Life Sciences

Semester 2 - Winter
BIOL*1040 [0.50] Biology II
CHEM*1310 [0.50] Introductory Environmental Chemistry II
ECON*1050 [0.50] Microeconomics
GEOG*1300 [0.50] Introduction to the Biophysical Environment
PHYS*1130 [0.50] Physics with Applications

Semester 3 - Fall
ENVS*2030 [0.50] Current Issues in Forest Science
MET*2030 [0.50] Meteorology and Climatology
SOIL*2120 [0.50] Introduction to Environmental Stewardship
STAT*2040 [0.50] Statistics I

1.00 core requirements, restricted electives or electives

Semester 4
SOIL*2010 [0.50] Soil Science

2.00 core requirements, restricted electives or electives

Semester 5
ENVS*2030 [0.50] Current Issues in Forest Science
SOIL*3050 [0.50] Land Utilization
SOIL*3080 [0.50] Soil and Water Conservation

1.00 core requirements, restricted electives or electives

Semester 6
SOIL*3100 [0.50] Resource Planning Techniques

1.50 core requirements, restricted electives or electives

One of:
ENGG*2550 [0.50] Water Management
GEOG*3610 [0.50] Environmental Hydrology
GEOL*3060 [0.50] Groundwater

Semester 7
SOIL*4110 [0.50] Natural Resources Management Field Camp
ZOO*4110 [0.50] Principles of Fish and Wild Life Management

1.50 core requirements, restricted electives or electives

Semester 8

2.50 core requirements, restricted electives or electives

Restricted Electives

Students in the Natural Resources Management major are required to choose 1.50 restricted elective credits from the following list:

CROP*2290 [0.50] Crops in Land Reclamation
ENVB*3000 [0.50] Nature Interpretation
ENVB*4780 [0.50] Forest Ecology
ENVS*3320 [0.50] Principles of Landscape Ecology
ENVS*4220 [0.50] Environmental Impact Assessment
GEOG*2420 [0.50] Aerial-photo Interpretation
GEOG*3210 [0.50] Management of the Biophysical Environment
GEOG*3480 [0.50] GIS and Spatial Analysis
GEOL*3130 [0.50] Agrogeology
LARC*4520 [0.50] Park and Recreation Administration
MET*3050 [0.50] Microclimatology
SOIL*3060 [0.50] Environmental Soil Chemistry
SOIL*3070 [0.50] Environmental Soil Physics
SOIL*3170 [0.50] Soil Processes in Landscape
SOIL*3200 [0.50] Environmental Soil Biology
SOIL*3600 [0.50] Remote Sensing

Natural Resources Management (NRM:C)

Department of Land Resource Science, Ontario Agricultural College.

Major

Please note that not all courses in the "One of:" options are available each semester (F, W, S). Students are encouraged to seek advice from the appropriate advisor when selecting and scheduling courses.

In this major there are fees charged to cover partial costs of some field trips. Students in need of financial assistance should approach the Chair of the department offering the course.

Semester 1 - Fall
BIOI*1030 [0.50] Biology I
CHEM*1300 [0.50] Introductory Environmental Chemistry
ENVS*1010 [0.50] Introduction to Environmental Sciences
MATH*1080 [0.50] Elements of Calculus I
PHYS*1080 [0.50] Physics for Life Sciences

Semester 2 - Winter
BIOI*1040 [0.50] Biology II
CHEM*1310 [0.50] Introductory Environmental Chemistry II
COOP*1100 [0.00] Introduction to Co-operative Education
ECON*1050 [0.50] Microeconomics
GEOG*1300 [0.50] Introduction to the Biophysical Environment
PHYS*1130 [0.50] Physics with Applications

Semester 3 - Fall
ENVS*2030 [0.50] Current Issues in Forest Science
MET*2030 [0.50] Meteorology and Climatology
SOIL*2120 [0.50] Introduction to Environmental Stewardship

1.00 core requirements, restricted electives or electives

Winter Semester
COOP*1000 [0.00] Co-op Work Term I

Semester 4 - Summer
SOIL*2010 [0.50] Soil Science
STAT*2040 [0.50] Statistics I

1.50 core requirements, restricted electives or electives

Fall Semester
COOP*2000 [0.00] Co-op Work Term II

Semester 5 - Winter
2.00 core requirements, restricted electives or electives

One of:
ENGG*2550 [0.50] Water Management
GEOG*3610 [0.50] Environmental Hydrology
GEOL*3060 [0.50] Groundwater

Summer Semester
COOP*3000 [0.00] Co-op Work Term III

Semester 6 - Fall
SOIL*3050 [0.50] Land Utilization
SOIL*3080 [0.50] Soil and Water Conservation

1.50 core requirements, restricted electives or electives

Semester 7 - Winter
2.50 core requirements, restricted electives or electives

Summer Semester (Optional)
COOP*4000 [0.00] Co-op Work Term IV
Semester 8 - Fall

SOIL*4110 [0.50] Natural Resources Management Field Camp
ZOO*4110 [0.50] Principles of Fish and Wild Life Management

1.50 core requirements, restricted electives or electives

Restricted Electives
Students in the Natural Resources Management major are required to choose 1.50 restricted elective credits from the following list:

CROP*2280 [0.50] Crops in Land Reclamation
ENVB*3000 [0.50] Nature Interpretation
ENVB*4780 [0.50] Forest Ecology
ENVS*3320 [0.50] Principles of Landscape Ecology
ENVS*4220 [0.50] Environmental Impact Assessment
GEOG*2420 [0.50] Aerial-photo Interpretation
GEOG*3210 [0.50] Management of the Biophysical Environment
GEOG*3480 [0.50] GIS and Spatial Analysis
GEOL*3130 [0.50] Agrogeology
LARC*4520 [0.50] Park and Recreation Administration
MET*3050 [0.50] Microclimatology
SOIL*3060 [0.50] Environmental Soil Chemistry
SOIL*3070 [0.50] Environmental Soil Physics
SOIL*3170 [0.50] Soil Processes in Landscape
SOIL*3200 [0.50] Environmental Soil Biology
SOIL*3600 [0.50] Remote Sensing

Areas of Emphasis
All students must choose an area of emphasis consisting of a minimum of 2.50 credits in a particular topic area. The sequence of courses normally begins in third year. With the approval of the program counsellor, students may develop their own area of emphasis. All areas of emphasis must be approved by the program counsellor. Students should note that entry to certain areas of emphasis is restricted by the student’s choice of major. Thus program approval should be gained before registering in courses to count towards their area of emphasis.

Atmospheric Resources (AR)

MET*2030 [0.50] Meteorology and Climatology
Four of:
GEOG*2110 [0.50] Climate and the Biophysical Environment
MET*2020 [0.50] Agrometeorology
MET*3050 [0.50] Microclimatology
MET*4210 [0.50] Atmospheric Experimentation and Instrumentation
MET*4300 [0.50] Atmospheric Transport and Chemistry

Biotic Systems (BS)

BIOL*3110 [0.50] Population Ecology
BIOL*3120 [0.50] Community Ecology
Three of:
BIOL*3010 [0.50] Laboratory and Field Work in Ecology
BIOL*3130 [0.50] Conservation Biology
BIOL*3450 [0.50] Introduction to Aquatic Environments
BOT*2050 [0.50] Plant Ecology
ENVB*4780 [0.50] Forest Ecology
MBG*2000 [0.50] Introductory Genetics
MICR*4140 [0.50] Soil Microbiology and Biotechnology
ZOO*4350 [0.50] Biology of Polluted Waters

Crop Ecology (CE)

ENVB*2010 [0.50] Food Production and the Environment
Four of:
CROP*2110 [0.50] Crop Ecology
CROP*2290 [0.50] Crops in Land Reclamation
CROP*4220 [0.50] Croping Systems
CROP*4240 [0.50] Weed Science
CROP*4340 [0.50] Seminar: Selected Topics in Crop Science
ENVB*2040 [0.50] Biology of Plant Pests
ENVB*3030 [0.50] Pesticides and the Environment
GEOG*3320 [0.50] Agriculture and Society
SOIL*2010 [0.50] Soil Science

Development and Stewardship (DS)

SOIL*2120 [0.50] Introduction to Environmental Stewardship

and 4 courses from List A or List B:

List A

AGEC*4210 [0.50] World Agriculture and Economic Development
IDEV*2010 [0.50] International Development Studies
REXT*4020 [0.50] Rural Extension in Change and Development

List B

GEOG*4390 [0.50] Seminar in Rural Geography
LARC*2820 [0.50] Urban and Regional Planning
SOIL*3050 [0.50] Land Utilization

Environmental Administration (EA)

GEOG*3210 [0.50] Management of the Biophysical Environment
HAF*4390 [0.50] Individuals and Groups in Organizations

Three of:

COST*2020 [0.50] Information Management
HAF*3000 [0.50] Human Resources Management
LARC*2820 [0.50] Urban and Regional Planning
POLS*2250 [0.50] Public Administration
POLS*3250 [0.50] Public Policy: Challenges and Prospects
REXT*3040 [0.50] Communication Process

Environmental Degradation (ED)

Three of:
ENGG*2550 [0.50] Water Management
ENVS*3360 [0.50] Waste Management and Utilization
MICR*4180 [0.50] Microbial Processes in Environmental Management
SOIL*3200 [0.50] Environmental Soil Biology
TOX*2000 [0.50] Principles of Toxicology
ZOO*4350 [0.50] Biology of Polluted Waters

Two of:
BIOL*3010 [0.50] Laboratory and Field Work in Ecology
CROP*2280 [0.50] Crops in Land Reclamation
GEOG*3110 [0.50] Biotic and Natural Resources
SOIL*3050 [0.50] Land Utilization
SOIL*3080 [0.50] Soil and Water Conservation

Environmental Economics and Policy (EEP)

ECON*1100 [0.50] Introductory Macroeconomics
One of:
AGEC*2700 [0.50] Survey of Natural Resource Economics
ECON*2100 [0.50] Economic Growth and Environmental Quality

Note: Whichever course of AGEC*2100 or AGEC*2700 is not taken for the Environmental Sciences core is required for this area of emphasis.

Three of:
AGEC*4290 [0.50] Land Economics
AGEC*4310 [0.50] Resource Economics
ECON*2310 [0.50] Intermediate Microeconomics
ECON*2650 [0.50] Introductory Development Economics
ECON*3580 [0.50] Economics of Regulation
ECON*4930 [0.50] Environmental Economics

Note: Additional prerequisites are needed for ECON*4930.

Environmental Impact Assessment (EIA)

ENVS*4220 [0.50] Environmental Impact Assessment
STAT*3510 [0.50] Environmental Risk Assessment

One of:
ENGG*3340 [0.50] Geographic Information Systems in Environmental Engineering
GEOG*3480 [0.50] GIS and Spatial Analysis

Two of:
BIOL*3450 [0.50] Introduction to Aquatic Environments
GEOG*4110 [0.50] Environmental Systems Analysis
GEOL*3190 [0.50] Environmental Water Chemistry
PBIO*4530 [0.50] Environmental Pollution Stresses on Plants
PHYS*3080 [0.50] Energy
TOX*2000 [0.50] Principles of Toxicology
ZOO*4350 [0.50] Biology of Polluted Waters

Note: Additional prerequisites are needed for GEOG*3480 and STAT*3510.

Environmental Management in the U.S. (EMUS)

This Area of Emphasis is undertaken at Bowling Green State University, Ohio. Students are strongly encouraged to undertake an internship (for University of Guelph credit) at a location/agency in the U.S. to be approved jointly by Bowling Green State University (Center for Environmental Programs) and the University of Guelph (Associate Dean's Office, Faculty of Environmental Sciences). The internship is undertaken upon the completion of the courses at Bowling Green State University.

At least 2 of the following BGSU courses:
ENVS301 - Environmental Problems (3 cr.)
ENVS401 - Environmental Strategies (2 cr.)
ENVS402 - Environmental Impact Statements (3 cr.)

At least 2 of the following BGSU courses:
POLS302 - American Domestic Public Policy (3 cr.)
POLS303 - Introduction to Public Administration (3 cr.)
POLS311 - State and Local Government (3 cr.)
POLS336 - Environmental Policy and Politics (3 cr.)

Students must complete at least 15 BGSU credits. Upon completion of the U.S. internship, students will receive credit for ENVS*3100.

Land Resources (LR)

GEOG*2000 [0.50] Geomorphology
GEOL*1050 [0.50] Geology and the Environment
SOIL*2010 [0.50] Soil Science
Two of:
GEOL*2200 [0.50] Glacial Geology
GEOL*3130 [0.50] Agrogeology
MET*2030 [0.50] Meteorology and Climatology
SOIL*3080 [0.50] Soil and Water Conservation
SOIL*3170 [0.50] Soil Processes in Landscape

**Landscape Ecology (LE)**
ENVS*3320 [0.50] Principles of Landscape Ecology
Four of:
BIOL*3010 [0.50] Laboratory and Field Work in Ecology
BIOL*4150 [0.50] Wildlife Conservation and Management
ENVB*2030 [0.50] Current Issues in Forest Science
ENVB*4780 [0.50] Forest Ecology
GEOG*2000 [0.50] Geomorphology
GEOG*4110 [0.50] Environmental Systems Analysis
LARC*2100 [0.50] Landscape Analysis
SOIL*2010 [0.50] Soil Science
SOIL*3080 [0.50] Soil and Water Conservation
ZOO*4110 [0.50] Principles of Fish and Wildlife Management

**Mathematical Modelling and Risk Assessment (MMRA)**
MATH*2150 [0.50] Applied Matrix Algebra
MATH*2170 [0.50] Differential Equations I
MATH*3510 [0.50] Biomathematics
STAT*2050 [0.50] Statistics II
STAT*3510 [0.50] Environmental Risk Assessment
One of:
MATH*2080 [0.50] Elements of Calculus II
STAT*2040 [0.50] Statistics I
If any of the above are included in the student's major, then one of the following must be taken:
CIS*2650 [0.50] Programming II
MATH*2130 [0.50] Numerical Methods
STAT*3240 [0.50] Applied Regression Analysis

**Water Resources (WR)**
GEOL*3060 [0.50] Groundwater
One of:
ENGG*3650 [0.50] Hydrology
GEOG*3610 [0.50] Environmental Hydrology
Three of:
BIOL*3450 [0.50] Introduction to Aquatic Environments
ENGG*2550 [0.50] Water Management
GEOG*3000 [0.50] Fluvial Processes
GEOL*3190 [0.50] Environmental Water Chemistry
SOIL*3070 [0.50] Environmental Soil Physics
Bachelor of Science in Technology [B.Sc.(Tech.)]

The B.Sc.(Tech.) program was designed for students who do not intend to pursue post-graduate studies and are strongly focused on securing industrial employment that makes use of the knowledge acquired in their bachelor's degree. This program provides students with the knowledge and skills deemed to be essential by employers and exemplifies the positive benefits of cooperation between colleges and universities. The program combines rigorous theory with practical applications.

For the B.Sc.(Tech.) degree the University offers an honors program requiring the equivalent of 8 semesters of successful full-time study. Two of the semesters will be located at Seneca College in Toronto. The program requires the completion of four co-op work-terms. Students are encouraged to study full-time and to follow the schedule of studies listed below. In the B.Sc.(Tech.) program, 2.50 credits per semester is the normal load for a regular full-time student.

Program Information

Students are required to follow the pattern of study for one of the two majors offered (Applied Pharmaceutical Chemistry or Physics and Technology) and complete all of the required courses specified in the Schedule of Studies. Courses taught by Seneca College are noted in the schedule of studies. The course descriptions are in this calendar however detailed course profiles can be accessed through the Seneca College home page.

Entry Credits

In general, the 4U or OAC credit or its equivalent is required in a subject area to allow entrance to the initial university course. Students who lack this requirement can remedy the deficiency by successful completion of:

- BIOL*1020 for students lacking biology
- CHEM*1060 for students lacking chemistry
- PHYS*1020 for students lacking in physics

Not more than one of the above will be allowed for credit toward the B.Sc.(Tech.) degree.

Continuation of Study

Students are advised to consult the University's regulations for continuation of study which are outlined in detail in Section VIII--Undergraduate Degree Regulations & Procedures. In addition to the University regulations, students will also be required to achieve a 70% cumulative average by the end of semester 2 due to the required co-op component within this program. Students will be evaluated after semester 2 and those students who have a cumulative average less than 70% but meet the Guelph continuation of study requirements will be withdrawn from the B.Sc.(Tech.) program. Under these circumstances, students in the Applied Pharmaceutical Chemistry major will be automatically moved to B.Sc. Biological Chemistry and those students in the Physics and Technology major will be automatically moved to the B.Sc. Physics major. Students should contact their Program Counsellor regarding co-op appeal procedures.

Note: Students who voluntarily withdraw from co-op will be moved to the B.Sc. majors specified above.

Honours Minors

Students may wish to add a minor to their major. A minor is a group of courses which provides for exposure to and mastery of the fundamental principles of a subject. A minor consists of a minimum of 5.00 credits. It may also require certain specified courses. Given the intended technical training of this degree, students have very little flexibility in terms of electives. As such, students wishing to add a minor would be required to enrol in additional semesters of study. Students wishing to take a minor should consult with their program counsellor.

Conditions for Graduation

In order to qualify for graduation from the B.Sc.(Tech.) program, the student must have successfully completed all of the courses approved for the program, achieved a 60%, or higher, cumulative average and received a minimum grade of satisfactory for the co-op work reports and work performance evaluations.

Applied Pharmaceutical Chemistry (APPC:C)

Department of Chemistry, College of Physical and Engineering Science

Major (Honours Program)

This major will require the completion of 20.25 credits as indicated below:

**Semester 1 - Fall**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>BIOL*1030</td>
<td>Biology I</td>
<td>0.50</td>
</tr>
<tr>
<td>CHEM*1040</td>
<td>General Chemistry I</td>
<td>0.50</td>
</tr>
<tr>
<td>MATH*1200</td>
<td>Calculus I</td>
<td>0.50</td>
</tr>
<tr>
<td>PHYS*1000</td>
<td>An Introduction to Mechanics</td>
<td>0.50</td>
</tr>
<tr>
<td>XSEN*2010</td>
<td>Effective Business and Technical Writing</td>
<td>0.50</td>
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**Semester 2 - Winter**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL*1040</td>
<td>Biology II</td>
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</tr>
<tr>
<td>CHEM*1050</td>
<td>General Chemistry II</td>
<td>0.50</td>
</tr>
<tr>
<td>COOP*1100</td>
<td>Introduction to Co-operative Education</td>
<td>0.00</td>
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<tr>
<td>MATH*1210</td>
<td>Calculus II</td>
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**Semester 3 - Fall**

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<th>Title</th>
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<tbody>
<tr>
<td>CHEM*2060</td>
<td>Structure and Bonding</td>
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<tr>
<td>CHEM*2400</td>
<td>Analytical Chemistry I</td>
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<tr>
<td>CHEM*2880</td>
<td>Physical Chemistry</td>
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<tr>
<td>CIS*1200</td>
<td>Introduction to Computing</td>
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</tr>
<tr>
<td>STAT*2040</td>
<td>Statistics I</td>
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**Winter Semester**

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<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COOP*1000</td>
<td>Co-op Work Term I</td>
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**Semester 4 - Summer**

<table>
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<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BIOC*2580</td>
<td>Introductory Biochemistry</td>
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<tr>
<td>CHEM*2070</td>
<td>Structure and Spectroscopy</td>
<td>0.50</td>
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<tr>
<td>CHEM*2700</td>
<td>Organic Chemistry I</td>
<td>0.50</td>
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<tr>
<td>MICR*2030</td>
<td>Microbial Growth</td>
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**Fall Semester**

<table>
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<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>COOP*2000</td>
<td>Co-op Work Term II</td>
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**Semester 5 - Winter**

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<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>XSEN*2020</td>
<td>Management Studies: Business and Human Relations</td>
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<tr>
<td>XSEN*3020</td>
<td>Pharmaceutical Analysis</td>
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<tr>
<td>XSEN*3030</td>
<td>Pharmacology and Applied Toxicology</td>
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<tr>
<td>XSEN*3040</td>
<td>Occupational Health and Chemistry</td>
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<tr>
<td>XSEN*4050</td>
<td>Biopharmaceuticals</td>
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<tr>
<td>Note: All courses in Semester 5 are taught at Seneca College in Toronto.</td>
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**Semester 6 - Summer**

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<tbody>
<tr>
<td>BIOC*3570</td>
<td>Analytical Biochemistry</td>
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<tr>
<td>CHEM*3360</td>
<td>Environmental Chemistry and Toxicology</td>
<td>0.50</td>
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<tr>
<td>CHEM*3430</td>
<td>Analytical Chemistry II: Instrumental Analysis</td>
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<tr>
<td>CHEM*3750</td>
<td>Organic Chemistry II</td>
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**Fall Semester**

<table>
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<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>COOP*3000</td>
<td>Co-op Work Term III</td>
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**Semester 7 - Winter**

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<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>XSEN*3060</td>
<td>Pharmaceutical Analysis - Advanced</td>
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<tr>
<td>XSEN*4010</td>
<td>Pharmaceutical Calculations</td>
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<td>XSEN*4020</td>
<td>Pharmaceutical Organic Chemistry</td>
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<tr>
<td>XSEN*4030</td>
<td>Pharmaceutical Product Formulations</td>
<td>0.50</td>
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<tr>
<td>XSEN*4040</td>
<td>Pharmaceutical Manufacturing</td>
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<td>Note: All courses in Semester 7 are taught at Seneca College in Toronto.</td>
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**Summer Semester**

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<tr>
<td>COOP*4000</td>
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**Semester 8 - Fall**

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<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CHEM*3440</td>
<td>Analytical Chemistry III: Analytical Instrumentation</td>
<td>0.50</td>
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<tr>
<td>CHEM*4730</td>
<td>Synthetic Organic Chemistry</td>
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<tr>
<td>One of: BIOC*4520</td>
<td>Metabolic Processes</td>
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<tr>
<td>BIOC*4550</td>
<td>Biochemistry and Structure of Macromolecules</td>
<td>0.50</td>
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<tr>
<td>BIOC*4570</td>
<td>Applied Biochemistry</td>
<td>0.50</td>
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<tr>
<td>CHEM*3640</td>
<td>Chemistry of the Elements I</td>
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<td>Mammalian Physiology I</td>
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<td>HK*3940</td>
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<td>MBG*2000</td>
<td>Introductory Genetics</td>
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<tr>
<td>PATH*3610</td>
<td>Principles of Disease</td>
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**Physics and Technology (PHTC:C)**

Department of Physics, College of Physical and Engineering Science

Major (Honours Program)

Two streams are available. Stream A is different from Stream B in that Stream B offers a double work term following academic semester 6. This major will require the completion of 21.00 credits as indicated below:

**Stream A**

**Semester 1 - Fall**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BIOL*1030</td>
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</tr>
<tr>
<td>CHEM*1040</td>
<td>General Chemistry I</td>
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<tr>
<td>CIS*1500</td>
<td>Introduction to Programming</td>
<td>0.50</td>
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<td>MATH*1200</td>
<td>Calculus I</td>
<td>0.50</td>
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<tr>
<td>PHYS*1000</td>
<td>An Introduction to Mechanics</td>
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**Semester 2 - Winter**

<table>
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<th>Course Code</th>
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<tr>
<td>CIS*2500</td>
<td>Intermediate Programming</td>
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<td>COOP*1100</td>
<td>Introduction to Co-operative Education</td>
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<tr>
<td>Semester 3 - Fall</td>
<td>Course Code</td>
<td>Course Title</td>
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<tr>
<td></td>
<td>MATH*2160</td>
<td>Linear Algebra I</td>
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<td>MATH*2200</td>
<td>Advanced Calculus I</td>
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<td>PHYS*2460</td>
<td>Electricity and Magnetism I</td>
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<td>Structure and Application of Microcomputers</td>
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<td>CIS*2910</td>
<td>Discrete Structures in Computing II</td>
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<th>Semester 4 - Summer</th>
<th>Course Code</th>
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<tr>
<td></td>
<td>MATH*2170</td>
<td>Differential Equations I</td>
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<tr>
<td></td>
<td>PHYS*2260</td>
<td>Experimental Basis of Quantum Physics</td>
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<td>PHYS*3240</td>
<td>Statistical Physics I</td>
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<td>Statistics I</td>
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<tr>
<td>One of:</td>
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<td>Structure and Application of Microcomputers</td>
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<td>CIS*2100</td>
<td>Scientific Computing and Applications Development</td>
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<td>CIS*2520</td>
<td>Data Structures</td>
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<table>
<thead>
<tr>
<th>Semester 5 - Winter</th>
<th>Course Code</th>
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<tbody>
<tr>
<td></td>
<td>XSEN*3100</td>
<td>Analog and Digital Communications</td>
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<td>XSEN*3120</td>
<td>Microprocessors I</td>
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<td>XSEN*3130</td>
<td>Object Oriented Programming Using C++</td>
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<td>XSEN*3140</td>
<td>Operating Systems</td>
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<td>XSEN*4130</td>
<td>Networking Essentials</td>
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<td>Note: All courses in Semester 5 are taught at Seneca College in Toronto.</td>
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<tr>
<td></td>
<td>PHYS*2450</td>
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<td>PHYS*3220</td>
<td>Waves and Optics</td>
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<th>Semester 7 - Winter</th>
<th>Course Code</th>
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<tbody>
<tr>
<td></td>
<td>MATH*3100</td>
<td>Differential Equations II</td>
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<tr>
<td></td>
<td>PHYS*3230</td>
<td>Quantum Mechanics I</td>
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<td>PHYS*4240</td>
<td>Statistical Physics II</td>
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<td>PHYS*4500</td>
<td>Advanced Physics Laboratory</td>
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<thead>
<tr>
<th>Semester 8 - Fall</th>
<th>Course Code</th>
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<tr>
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<td>PHYS*4500</td>
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<tr>
<td>0.50 elective</td>
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</table>

Note: At least 0.50 in electives must be taken from courses in the Arts or Social Sciences.

Stream B

<table>
<thead>
<tr>
<th>Semester 1 - Fall</th>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>BIOI*1030</td>
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<td>Biology I</td>
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<tr>
<td>CHEM*1040</td>
<td>0.50</td>
<td>General Chemistry I</td>
</tr>
<tr>
<td>CIS*1500</td>
<td>0.50</td>
<td>Introduction to Programming</td>
</tr>
<tr>
<td>MATH*1200</td>
<td>0.50</td>
<td>Calculus I</td>
</tr>
<tr>
<td>PHYS*1000</td>
<td>0.50</td>
<td>An Introduction to Mechanics</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Semester 2 - Winter</th>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS*2500</td>
<td>0.50</td>
<td>Intermediate Programming</td>
</tr>
<tr>
<td>COOP*1100</td>
<td>0.00</td>
<td>Introduction to Co-operative Education</td>
</tr>
<tr>
<td>MATH*1210</td>
<td>0.50</td>
<td>Calculus II</td>
</tr>
</tbody>
</table>
Doctor of Veterinary Medicine (D.V.M.)

Program Information
The University of Guelph offers the degree program Doctor of Veterinary Medicine (D.V.M.) at the Ontario Veterinary College. The program is offered during the Fall and Winter semesters only and normally requires 8 semesters to complete. The college is accredited by the Canadian Veterinary Medical Association, the American Veterinary Medical Association, and the Royal College of Veterinary Surgeons of Britain. The D.V.M. degree from Guelph is respected by veterinarians throughout the world.

Students entering the D.V.M. Program prior to Fall 2000 should refer to the undergraduate calendar for their year of program entry for appropriate course listings.

Objectives of the Program
1. The graduates should have the knowledge and skills appropriate to their career orientations and sufficient to allow the pursuit of a variety of careers in veterinary medicine, including graduate studies. They should be able to pass the examinations of all Canadian licensing bodies and must possess a fundamental core of academic veterinary science knowledge and of technical competence.
2. The graduates must be able to solve animal health problems and must have knowledge of the management of domestic animals and the functioning of the various animal industries.
3. The graduates must be able to communicate effectively, whether writing scientific papers, or conversing with clients. The ability to relate to people is an acquired skill that must be encouraged during the program of study.
4. Through a commitment to continuing education, the graduates must accept the professional responsibility to stay abreast of new developments and to pursue solutions to new problems.
5. The graduates must have a genuine concern for the welfare of all animals. The graduates should be aware of their responsibilities to the profession in terms of ethical and professional conduct and have an understanding of the moral questions facing veterinarians.
6. The graduates must have had the opportunity during their university tenure to develop a range of non-veterinary interests sufficient to equip them to take a responsible role in society.

Regulations for Licence to Practise
Graduates are eligible to practise in Canada, but the degree in veterinary medicine does not in itself confer the right to practise. For information on matters relative to licence to practise in the various provinces of Canada, students should communicate with the Canadian Veterinary Medical Association, 339 Booth Street, Ottawa, Ontario, Canada K1R 7K1, who will refer them to the appropriate provincial veterinary association.

Admission to the Veterinary Medicine Program
Complete details on admission requirements and procedures are listed in Section IV--Admission Information.

Academic Counselling
The Office of the Assistant Dean for Student Affairs provides academic counselling and referral to other appropriate resources for all D.V.M. students. In particular, students who are requesting a Supplemental Privilege are required to meet with the Assistant Dean so that the student can be informed of appropriate resources (such as Learning and Writing Services and the Counselling and Student Resource Centre) and use them to deal with his or her academic difficulties.

Students on probation are required to meet regularly with the Assistant Dean so that the student's academic progress is monitored and resource information and assistance is provided to the student. As an aid to improving their academic efficiency all students whose program average (PA) is between 60% and 70% will be sent a letter from the Assistant Dean outlining resources available to them.

Conditions for Continuation of Study
For supplemental and deferred privileges, all students in the D.V.M. Program are subject to Deferred Privilege Procedures and Supplemental Privilege Procedures outlined in Chapter VIII--Undergraduate Degree Regulations and Procedures. This Continuation of Study Policy applies to students entering the D.V.M. Program in Fall 2000 and subsequent semesters. For continuation of study, a student must satisfy the conditions as presented below. In order to graduate, students must fulfill the course requirements for the program and have achieved at least a 60% program average. The Academic Review Sub-Committee will assess all cases where a student's academic progress does not meet the Continuation of Study requirements and will interpret the academic regulations. The requirements will be applied with due consideration to the credit weights of the course, the role of the course in the Phase and the degree of integration of the course with concurrently required courses, and in light of the student's particular circumstances (see VIII--Undergraduate Degree Regulations and Procedures).

Students entering the D.V.M. Program prior to Fall 2000 should consult the Undergraduate Program for the year in which they entered the Program.

Full-time Study
The D.V.M. program is offered as a full-time program and normally requires four phases (over the equivalent of eight academic semesters at the University of Guelph) to complete. In exceptional extenuating circumstances, the Academic Review Sub-Committee may allow a student to take courses on a part-time basis. In these instances, the Academic Review Sub-Committee has the discretion to select the courses that the student will register in on a part-time basis. Students permitted to take courses on a part-time basis are cautioned that there is an enrolment limitation for the program and that access to certain courses or resumption of the program on a full-time basis will be conditional on the availability of space.

Failed Courses
1. In the circumstances of a failed course, the Academic Review Sub-Committee may, if appropriate and under special circumstances only, allow a student the opportunity to gain credit standing in a failed course by granting a supplemental privilege (see Failed Courses and Supplemental Privilege in Section VIII). Students must request a supplemental privilege by submitting the request to the Academic Review Sub-Committee, and the fee for the privilege, within 7 days of the release of grades for the phase in which the failure occurred. The Academic Review Sub-Committee, upon receiving a request from a student, and after consulting with the instructor and reviewing the student's course performance, will determine whether a supplemental privilege should be granted.

Supplemental Privileges
1. Students will be permitted supplemental privileges in a maximum of two courses over the entire D.V.M. Program. A supplemental privilege will not be granted for a second failure in a course. Any student granted a supplemental privilege must meet with the Assistant Dean for Student Affairs who will inform the student of appropriate resources to be used to deal with his/her academic difficulties.

Conditions for Graduation
In order to qualify for graduation from the 8 semester Honours D.V.M. program, the student must have completed successfully the courses approved for the program. Students will not be allowed to graduate while on probation.

Withdrawal from the Program
Students who have voluntarily withdrawn from the D.V.M. program and who wish to return must give notice to the Assistant Dean for Student Affairs, O.V.C., of their intention to return by May 1 if they wish to return in September or January of the upcoming academic year. Students contemplating a withdrawal from the program are cautioned that there is an enrolment limitation for the program and that re-entry will be conditional on the availability of space. The Program Committee reserves the right to select the quota from among the qualified applicants.

Protective Clothing
All D.V.M. students will require 3 laboratory coats and 3 pairs of coveralls. Students in semesters 5 and 6 must also have 3 surgical suits. Semesters 7 and 8 students will require an additional 1 of each of the types of protective clothing. Labels with each student's name must be affixed to all items of clothing. All soiled clothing must be laundered through the Veterinary Teaching Hospital's "dirty-in/clean-out" plan. Students must wear steel-capped shoes or boots in the large animal clinic and rubber boots in pathology laboratories. A pair of white shoes and a pair of obstetrical boots must be available in
semesters 7 and 8. The Veterinary Teaching Hospital will not provide extra protective clothing; however, short white jackets will be provided by the Veterinary Teaching Hospital for semesters 7 and 8 students during the small animal medicine rotation.

**Estimate of Expenses**

Attention is drawn to Section VI--Schedule of Fees for information on tuition, University student organizations and rabies immunization required for all students in the program. In addition, while the college supplies most laboratory equipment, students may wish to purchase instruments for personal use. Texts, protective clothing, and a minimum of supplies for personal use may cost approximately $500 per semester.

**Health and Safety**

Students must follow the health and safety policies required for the various courses in the veterinary program. Pregnant students and others with increased medical risks should consult Health Services concerning potential health risks which may occur during the normal course of their studies.

**Immunization against rabies is a requirement for admission and continuation in the D.V.M. Program. Annual rabies titles and booster immunizations (if necessary) are mandatory for all Program participants. Prospective students and in-course students should contact Student Health Services (519-824-4120 extension 52131) for further information and guidance about the rabies surveillance program. Faculty and staff members should contact Occupational Health Services, extension 52133, for information about medical surveillance programs provided in accordance with University Safety Policy 851.13.03.

**Schedule 4 (D.V.M. Continuation of Study)**

Continuation of Study is assessed on the student's D.V.M. Program Average (not the University Cumulative Average) and according to the policy on failures as stated above. In Phase 2 and beyond, eligibility to continue is also assessed at the end of each phase using the Phase Average (PHA). Courses that are given a grade of Pass or Fail do not impact either the PA or PHA Average because they are not attached to any numerical grade.

Students on Probation at the end of Phase 1 or 2 must clear this probationary status by achieving the required PA average by the end of Phase 2 or 3 respectively. If a student does not achieve the required standing by the end of the probationary period he or she will normally be required to withdraw from the program.

Students finishing Phase 3 on probationary status will not be permitted to proceed to the Externship or into Phase 4. The Academic Review Sub-Committee will establish the appropriate remediation requirements that must be fulfilled in order for the student to obtain the standing of Eligible to Continue. These may include repeating a component of a course, one or more entire courses, an entire Phase, or one or more clinical rotations.

The required averages are as follows:

**For Course Attempts in Phase 1**

<table>
<thead>
<tr>
<th>Program Average (PA)</th>
<th>Status of Student</th>
</tr>
</thead>
<tbody>
<tr>
<td>PA &lt; 50%</td>
<td>Required to Withdraw</td>
</tr>
<tr>
<td>PA ≥ 50% and PA &lt;60%</td>
<td>Probationary Status</td>
</tr>
<tr>
<td>PA ≥ 60%</td>
<td>Eligible to Continue</td>
</tr>
</tbody>
</table>

**For Course Attempts in Phase 2 and Beyond**

If Eligible to Continue:

<table>
<thead>
<tr>
<th>Program Average (PA) and Phase Average (PHA)</th>
<th>Status of Student</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHA &lt; 50%</td>
<td>Required to Withdraw</td>
</tr>
<tr>
<td>PA or PHA ≥ 50% but PA &lt;60%</td>
<td>Probationary Status</td>
</tr>
<tr>
<td>PA and PHA ≥ 60%</td>
<td>Eligible to Continue</td>
</tr>
</tbody>
</table>

If on Probation:

<table>
<thead>
<tr>
<th>Program Average (PA)</th>
<th>Status of Student</th>
</tr>
</thead>
<tbody>
<tr>
<td>PA &lt; 60%</td>
<td>Required to Withdraw</td>
</tr>
<tr>
<td>PA ≥ 60%</td>
<td>Eligible to Continue</td>
</tr>
</tbody>
</table>

**Schedule of Studies**

**Phase 1**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Units</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>VETM*3000</td>
<td>0.50</td>
<td>Veterinary Biochemistry</td>
</tr>
<tr>
<td>VETM*3070</td>
<td>2.00</td>
<td>Veterinary Anatomy</td>
</tr>
<tr>
<td>VETM*3080</td>
<td>1.50</td>
<td>Veterinary Physiology</td>
</tr>
<tr>
<td>VETM*3120</td>
<td>0.75</td>
<td>Veterinary Histology</td>
</tr>
<tr>
<td>VETM*3210</td>
<td>0.50</td>
<td>Art of Veterinary Medicine I</td>
</tr>
<tr>
<td>VETM*3390</td>
<td>0.50</td>
<td>Veterinary Medical Genetics</td>
</tr>
<tr>
<td>VETM*3400</td>
<td>0.75</td>
<td>Health Management I</td>
</tr>
<tr>
<td>VETM*3430</td>
<td>0.25</td>
<td>Clinical Medicine I</td>
</tr>
</tbody>
</table>

**Phase 2**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Units</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>VETM*3220</td>
<td>0.50</td>
<td>Art of Veterinary Medicine II</td>
</tr>
<tr>
<td>VETM*3410</td>
<td>0.75</td>
<td>Health Management II</td>
</tr>
</tbody>
</table>

**Phase 3**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Units</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>VETM*3440</td>
<td>0.50</td>
<td>Clinical Medicine II</td>
</tr>
<tr>
<td>VETM*3450</td>
<td>2.75</td>
<td>Principles of Disease in Veterinary Medicine</td>
</tr>
<tr>
<td>VETM*3460</td>
<td>0.75</td>
<td>Theriogenology</td>
</tr>
<tr>
<td>VETM*3470</td>
<td>0.75</td>
<td>Anaesthesia</td>
</tr>
<tr>
<td>VETM*3480</td>
<td>0.50</td>
<td>Phase 2: Special Topics</td>
</tr>
<tr>
<td>VETM*3510</td>
<td>0.25</td>
<td>Principles of Surgery</td>
</tr>
</tbody>
</table>

**Phase 4**

Students entering into the Phase 4 of the DVM Program will select an area of emphasis from either: Small Animal Stream, Mixed Stream, Equine Stream or the Food Animal Stream.

**Small Animal Stream:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Units</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>VETM*4610</td>
<td>3.25</td>
<td>Small Animal Clinics - Small Animal Stream</td>
</tr>
<tr>
<td>VETM*4620</td>
<td>1.00</td>
<td>Health Management - Small Animal Stream</td>
</tr>
<tr>
<td>VETM*4880</td>
<td>3.25</td>
<td>Electives in Veterinary Medicine I</td>
</tr>
<tr>
<td>VETM*4900</td>
<td>2.50</td>
<td>Veterinary Externship</td>
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</table>

**Mixed Stream:**

<table>
<thead>
<tr>
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<th>Units</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>VETM*4660</td>
<td>2.00</td>
<td>Small Animal Clinics - Mixed Stream</td>
</tr>
<tr>
<td>VETM*4670</td>
<td>1.50</td>
<td>Large Animal Clinics - Mixed Stream</td>
</tr>
<tr>
<td>VETM*4890</td>
<td>2.00</td>
<td>Electives in Veterinary Medicine II</td>
</tr>
<tr>
<td>VETM*4900</td>
<td>2.50</td>
<td>Veterinary Externship</td>
</tr>
</tbody>
</table>

**Equine Stream:**

<table>
<thead>
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<th>Units</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>VETM*4920</td>
<td>1.50</td>
<td>Small Animal Clinics - Equine Stream</td>
</tr>
<tr>
<td>VETM*4930</td>
<td>2.50</td>
<td>Large Animal Clinics - Equine Stream</td>
</tr>
<tr>
<td>VETM*4940</td>
<td>1.50</td>
<td>Health Management - Equine Stream</td>
</tr>
<tr>
<td>VETM*4890</td>
<td>2.00</td>
<td>Electives in Veterinary Medicine II</td>
</tr>
<tr>
<td>VETM*4900</td>
<td>2.50</td>
<td>Veterinary Externship</td>
</tr>
</tbody>
</table>

**Food Animal Stream:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Units</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>VETM*4710</td>
<td>1.00</td>
<td>Large Animal Clinics - Food Animal Stream</td>
</tr>
<tr>
<td>VETM*4720</td>
<td>3.25</td>
<td>Health Management - Food Animal Stream</td>
</tr>
<tr>
<td>VETM*4880</td>
<td>3.25</td>
<td>Electives in Veterinary Medicine I</td>
</tr>
<tr>
<td>VETM*4900</td>
<td>2.50</td>
<td>Veterinary Externship</td>
</tr>
</tbody>
</table>
Co-operative Education Programs

Co-operative Education formally integrates the student's academic study with work experience in co-operating employer organizations. Academic programs are scheduled to allow the student to alternate periods of study with periods of work in appropriate fields of business, industry, government, social services or the professions. Students are engaged in productive work in jobs developed and/or approved by the institution as suitable learning situations. Progress on the job is monitored by the institution and is supervised and evaluated by both the employer and the institution. Co-operative Education is intended to provide students with the practical knowledge of their discipline and to assist them in making more precise career decisions as a result of the frequent and extensive exposure to the work environment.

Through an introductory co-op class, continuing contact with supervisors and fellow workers, work performance evaluations, and on the job visits, Co-op students become increasingly aware of their strengths and weaknesses. Practical communication skills are enhanced through the medium of work reports which are intended to accentuate awareness of real life situations and responsibilities. Also, a greater degree of financial independence may be realized, and a wider variety of permanent employment opportunities may be possible. Co-operative Education Services is primarily responsible for administering the work semester aspects of Co-operative Education programs. This involves marketing the concept of Co-operative Education to potential employers, identifying appropriate jobs, and organizing the on campus employer interview system. Co-op Co-ordinators contact students on the job site, and along with the On-Campus Co-ordinator provide a wide range of counselling and career development services.

Admission Information

Enrolment in the Co-operative education programs will be limited, and the number of students admitted is generally dependent on the projected employment market. Admission is directly into semester 1. However, in-course transfers are considered, space permitting. Interested students should contact Co-operative Education Services prior to the application deadline dates as printed in Section III--Schedule of Dates. There is no admission into co-op programs from academic semesters 3 and beyond.

Eligibility

In order to apply to the Co-op Education program, applicants must have at least a 70% average. For high school students, it is required for the appropriate subjects in the final year; for in-course students in their first year, it is required of their overall average, and their major; and for transfer students, they must meet normal admission requirements, as well as complete one academic semester at Guelph in which they achieve the minimum recommended average, normally prior to participating in the Co-op process. Applicants must be a Canadian citizen or permanent resident/landed immigrant. Applicants holding U.S. citizenship should contact the Co-op Education Services.

Continuation of Study

In addition to the conditions for continuation of study listed for the appropriate degree programs, Co-op students admitted directly from high school and in-course must maintain at least a 70% overall average in first year to continue in the co-op program. Consideration may be given in some programs to other factors (e.g. interview results). In addition, all students must satisfactorily complete COOP* 1100 before the first work term. See the schedule of studies for the programs of study offered under Co-operative Education. Co-op students must normally be registered as full time. Co-op students are also required to meet other conditions, (e.g. satisfactory work term reports and work performance evaluations) in order to continue in the Co-op program. Complete conditions for continuation of study for a co-op program are outlined in the Policy for Student Involvement in Co-operative Education. The complete policy can be viewed on the world wide web at www.coop.uoguelph.ca.

Release of Academic Information

By registering in a Co-operative Education program, students agree that academic transcripts form part of the application package made available to potential employers; and that academic transcripts may also be made available to the appropriate work semester employers. Employment information, the work performance evaluation, and the work term report evaluation will appear on the academic transcripts.

Procedures for Work Semester Reports

Following each work term the co-op student must submit a work term report to the department Co-op Faculty Advisor (or the department chair) by the deadline reported in the schedule of dates. This report will be assessed by the Faculty Advisor and the evaluation submitted to the Office of Registrarial Services through Co-operative Education Services. The academic department will keep the report in the student's file and the Faculty Advisor is encouraged to discuss the report with the student following evaluation. The report may then be returned to the student or kept in the student's file. Except as outlined in the following paragraphs, failure to submit a work term report by the deadline will result in an "unsatisfactory" evaluation on the student's record and a requirement to withdraw from the co-op program.

If the work term report cannot be submitted by the deadline for reasons beyond the control of the student, a "Request for Academic Consideration" form should be completed giving the reasons and providing evidence where appropriate (see also Section VIII--Undergraduate Degree Regulations & Procedures). If the Academic Review Committee finds in favour of the request, a deferred date for the submission of the work term report will be negotiated. Normally, this deferment would be completed as soon as possible as students with missing work term reports may not compete for further work terms.

Conditions for Graduation

Conditions for graduation from a Co-operative Education program are similar to the corresponding regular degree program. In addition, all required work semesters must be satisfactorily completed, all work reports must have a grade of satisfactory or better, no work performance may be evaluated as unacceptable, and no more than one work performance may be evaluated as "marginal".

Co-op Fees

Students in Co-op are required to pay a co-op fee each semester (see Section VI--Schedule of Fees). Students who enter Co-op in-course will have an altered payment schedule to be discussed upon admission. There is no application fee.

Schedule of Studies

Students entering the Co-op program are advised to review carefully the academic semester/work semester sequence as set out in the schedule of studies for the degree programs and specialization offered under Co-operative Education. Normally students must follow the sequence as scheduled. If, under exceptional circumstances, the schedule cannot be followed, the student must obtain written approval of an alternative work and academic semester sequence from the Co-op Coordinator and Co-op Faculty Advisor. In unusual circumstances the Director of Co-op Education Services may be involved in the approval process.
University of Guelph-Humber

For University of Guelph-Humber programs please refer to http://www.guelphhumber.ca.
Associate Diploma Programs

For Associate Diploma Programs please refer to the Associate Diploma Program Calendar, available on the world wide web at http://www.uoguelph.ca/diploma_calendar/.
XI. Special Study Opportunities

Certificates and Diplomas

The University offers certificate and diploma programs in Applied Statistics, Environmental Citizenship, Environmental Conservation, Food Science, Hospitality Studies, Leadership, and Public Policy and Administration. These programs are designed for those who want to develop or upgrade skills in one of these areas without necessarily proceeding towards a three or four year degree program. These programs may be completed on a part-time basis over a period of time.

Individuals who are not currently registered in a degree program should apply through the Office of Open Learning. Please consult with the Program Counsellor for Open Learning (ext. 56050). Individuals who are currently enrolled in a degree program should apply through the Admissions Office at the University of Guelph. Please consult with the Admissions Counsellor (ext. 56060).

For those who are in a degree program or who will be transferring into a degree program, there will be a restriction as to the number of courses which can be used for both a certificate/diploma and a degree specialization. Up to 50% of the requirements for a degree-credit certificate can be applied towards a degree. Note that the Certificate in Leadership is exempt from this restriction.

Certificate in Environmental Citizenship

Developed from a social science perspective, this Certificate is beneficial to those who want to learn more about the global environmental issues facing us today and in the future. Participants gain in-depth knowledge about environmental changes, their global impact, and how one can directly contribute to the environment's sustainability. The Certificate consists of six degree-credit distance education courses taken online from the University of Guelph's Faculty of Environmental Sciences. It is structured as follows, requiring 6 courses total, to include at least one at the 3000 or 4000 level:

**Required Course**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>UNIV<em>2050</em>DE</td>
<td>The 5000 Days</td>
<td>0.50</td>
</tr>
</tbody>
</table>

**2 or 3 of the following:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON<em>1050</em>DE</td>
<td>Microeconomics</td>
<td>0.50</td>
</tr>
<tr>
<td>ECON<em>2100</em>DE</td>
<td>Economic Growth and Environmental Quality</td>
<td>0.50</td>
</tr>
<tr>
<td>EDRD<em>3500</em>DE</td>
<td>Recreation and Tourism Planning</td>
<td>0.50</td>
</tr>
<tr>
<td>GEOG<em>1250</em>DE</td>
<td>Human Impact on the Environment</td>
<td>0.50</td>
</tr>
<tr>
<td>HIST<em>2250</em>DE</td>
<td>Environment and History</td>
<td>0.50</td>
</tr>
<tr>
<td>PHIL<em>2070</em>DE</td>
<td>Philosophy of the Environment</td>
<td>0.50</td>
</tr>
<tr>
<td>POLS<em>3370</em>DE</td>
<td>Environmental Policy Formation and Administration</td>
<td>0.50</td>
</tr>
<tr>
<td>SOIL<em>2120</em>DE</td>
<td>Introduction to Environmental Stewardship</td>
<td>0.50</td>
</tr>
<tr>
<td>UNIV<em>3250</em>DE</td>
<td>Beyond the 5000 Days</td>
<td>0.50</td>
</tr>
<tr>
<td>UNIV<em>4500</em>DE</td>
<td>Planning Industrial Ecology</td>
<td>0.50</td>
</tr>
</tbody>
</table>

**2 or 3 of the following:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL<em>2060</em>DE</td>
<td>Ecology</td>
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</tr>
<tr>
<td>BOT<em>1200</em>DE</td>
<td>Plants and Human Use</td>
<td>0.50</td>
</tr>
<tr>
<td>ENVB<em>3000</em>DE</td>
<td>Nature Interpretation</td>
<td>0.50</td>
</tr>
<tr>
<td>GEOG<em>2210</em>DE</td>
<td>Environment and Resources</td>
<td>0.50</td>
</tr>
<tr>
<td>GEOG<em>3210</em>DE</td>
<td>Management of the Biophysical Environment</td>
<td>0.50</td>
</tr>
<tr>
<td>MET<em>1000</em>DE</td>
<td>The Atmospheric Environment</td>
<td>0.50</td>
</tr>
<tr>
<td>UNIV<em>3400</em>DE</td>
<td>Watershed Planning Practice</td>
<td>0.50</td>
</tr>
<tr>
<td>ZOO<em>1500</em>DE</td>
<td>Humans in the Natural World - a Zoological Perspective</td>
<td>0.50</td>
</tr>
<tr>
<td>ZOO<em>2050</em>DE</td>
<td>Natural History of Ontario</td>
<td>0.50</td>
</tr>
</tbody>
</table>

For more information, please visit the website at: http://www.environmentalcertificates.com.

Certificate in Environmental Conservation

Developed from a biophysical science perspective, this Certificate is beneficial to those who want to gain knowledge of issues surrounding environmental protection, conservation and preservation, and environmental research. The Certificate consists of six degree-credit distance education courses taken online from the University of Guelph's Faculty of Environmental Sciences. The program is designed to provide participants with the credentials they need for professional advancement in the environment industry and/or personal enrichment. It is structured as follows, requiring 6 courses total, to include at least one at the 3000 or 4000 level:

**Required Course**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOIL<em>2120</em>DE</td>
<td>Introduction to Environmental Stewardship</td>
<td>0.50</td>
</tr>
</tbody>
</table>

**2 or 3 of the following:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOG<em>1220</em>DE</td>
<td>Human Impact on the Environment</td>
<td>0.50</td>
</tr>
<tr>
<td>GEOG<em>1300</em>DE</td>
<td>Introduction to the Biophysical Environment</td>
<td>0.50</td>
</tr>
<tr>
<td>GEOL<em>1100</em>DE</td>
<td>Principles of Geology</td>
<td>0.50</td>
</tr>
<tr>
<td>MET<em>1000</em>DE</td>
<td>The Atmospheric Environment</td>
<td>0.50</td>
</tr>
<tr>
<td>SOIL<em>2010</em>DE</td>
<td>Soil Science</td>
<td>0.50</td>
</tr>
<tr>
<td>SOIL<em>3080</em>DE</td>
<td>Soil and Water Conservation</td>
<td>0.50</td>
</tr>
<tr>
<td>UNIV<em>3400</em>DE</td>
<td>Watershed Planning Practice</td>
<td>0.50</td>
</tr>
</tbody>
</table>

**2 or 3 of the following:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL<em>2060</em>DE</td>
<td>Ecology</td>
<td>0.50</td>
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</table>

Certificate in Food Science

The Certificate in Food Science program is offered by the Department of Food Science in a distance education mode. Normally, learners will require two years to complete the process. The certificate program is aimed at upgrading individuals who either have a formal university education in an area other than Food Science or have been working in Food Science-related areas but who have no academic background in Food Science. The certificate program concentrates on the chemistry, analysis, microbiology and processing of foods, and on the maintenance of food safety and quality throughout. All courses are offered in an interactive format via the internet.

Students interested in entering the Certificate in Food Science program should enroll in the Open Learning program through the Office of Open Learning. Post-secondary courses in microbiology and chemistry are pre-requisites for entrance into the program.

The core courses of the program cannot be used as substitutes for core courses or restricted electives in the B.Sc. Food Science Major.

**Required Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FOOD<em>2010</em>DE</td>
<td>Principles of Food Science</td>
<td>0.50</td>
</tr>
<tr>
<td>FOOD<em>2400</em>DE</td>
<td>Introduction to Food Chemistry</td>
<td>0.50</td>
</tr>
<tr>
<td>FOOD<em>2410</em>DE</td>
<td>Introduction to Food Processing</td>
<td>0.50</td>
</tr>
<tr>
<td>FOOD<em>2420</em>DE</td>
<td>Introduction to Food Microbiology</td>
<td>0.50</td>
</tr>
<tr>
<td>FOOD<em>3430</em>DE</td>
<td>Introduction to Food Analysis</td>
<td>0.50</td>
</tr>
</tbody>
</table>

For more information, please visit the website at: http://www.foodsciencecertificate.com.

Certificate in Hospitality Studies

The Certificate in Hospitality Services is offered online from the University of Guelph's School of Hospitality and Tourism Management. It is comprised of five courses taken via distance education and is designed to provide an overview of the hospitality industry, an understanding of human resources management principles and financial management skills. It is perfect for individuals needing additional formal education to assume greater management responsibilities.

Prior Learning Assessment is in place for this Certificate to evaluate and recognize your experience and previous education, including seminars, workshops and corporate training programs. You may receive credit to a maximum of one credit towards one of the required courses. See Chapter VIII, Prior Learning Assessment, for more information. Individuals interested in PLA should consult with the Program Counsellor at the Office of Open Learning (ext. 56050).

The Certificate requires one of the following introductory courses in addition to the four required courses listed below:

**One of:**

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<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HTM<em>1500</em>DE</td>
<td>Introduction to Hospitality and Tourism Management</td>
<td>0.50</td>
</tr>
<tr>
<td>HTM<em>2150</em>DE</td>
<td>Introduction to Canadian Business Management</td>
<td>0.50</td>
</tr>
</tbody>
</table>

**Required Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HTM<em>2030</em>DE</td>
<td>Control Systems in the Hospitality and Tourism Industry</td>
<td>0.50</td>
</tr>
<tr>
<td>HTM<em>2200</em>DE</td>
<td>Organizational Behaviour I</td>
<td>0.50</td>
</tr>
<tr>
<td>HTM<em>3000</em>DE</td>
<td>Human Resources Management</td>
<td>0.50</td>
</tr>
<tr>
<td>HTM<em>3070</em>DE</td>
<td>Hospitality and Tourism Management Accounting</td>
<td>0.50</td>
</tr>
</tbody>
</table>

Note: Required courses must be taken in order.

For more information, please visit the website at: http://www.hospitalitystudies.com.

Certificate in Leadership

The Certificate in Leadership is offered by the University of Guelph through the Faculty of Management, College of Social and Applied Human Sciences. This certificate program allows undergraduate students to complete concurrently both their degree program and the certificate. As well, the certificate is available to students in the Open Learning program.

The program focuses on new leadership models and practical applications in a variety of organizational settings. Five undergraduate courses are required, in addition to 120 hours of leadership practice. Students will develop an historical and theoretical understanding of leadership with particular emphasis on contemporary theories, models and research.

The program consists of 2.50 credits chosen from the lists below, plus 120 hours of leadership practice, in an approved placement. Some courses require particular prerequisites; it is important to take into account the necessary prerequisites and semester offered when determining the sequence in which courses are taken. Students should consult with the Open Learning Program Counsellor at the Office of Open Learning (ext. 56050).

Students who wish to enroll in the Certificate in Leadership program should contact the Office of Open Learning at 519-767-5000. For more information, please visit the website at: http://www.leadershipcertificate.com.
1.00 credits from:

UNIV*2000 [0.50] Foundations of Leadership
[students must contact the Office of Open Learning for instructor consent]
UNIV*4000 [0.50] Leadership Capstone
[students must contact the Office of Open Learning for instructor consent]

0.50 credits from:

PHIL*2120 [0.50] Ethics
PHIL*2600 [0.50] Business and Professional Ethics
POLS*3440 [0.50] Corruption, Scandal and Political Ethics

1.00 credits from:

ENVS*2010 [0.50] Decision-making and Communication Skills
[restricted to B.Sc Env. students only]
HTM*2150 [0.50] Introduction to Canadian Business Management
[Note: B.Comm students may not take this course for credit in their degree program.]

HTM*3000 [0.50] Human Resources Management
ISS*2500 [0.50] Management in Organizations
PHIL*2100 [0.50] Critical Thinking
POLS*2250 [0.50] Public Administration
POLS*3940 [0.50] Accountability and Canadian Government
PSYC*3070 [0.50] Psychology in Human Resource Management
PSYC*3080 [0.50] Organizational Psychology
REXT*3040 [0.50] Communication Process
REXT*3060 [0.50] International Communication
REXT*4100 [0.50] Leadership Development in Rural Organization
SOAN*2040 [0.50] Globalization of Work and Organizations

Diploma in Applied Statistics

The Diploma in Applied Statistics is a program offered by the Department of Mathematics and Statistics, which seeks to give students of the Applied Sciences a technical competency in the use and application of Statistics.

The program is intended mainly for those whose primary area of expertise is not in Statistics, but who feel the need to be able to use modern statistical techniques. This program seeks to fill a need of scientists to reach a useful level of competency in the use of statistical methodology.

Diploma Requirements

The program consists of 5.00 credits chosen from the following list. It is important to take into account the necessary prerequisites when determining the sequence in which the courses are taken. Consult an advisor from the department for assistance.

MATH*2080 [0.50] Elements of Calculus II
MATH*2150*DE [0.50] Applied Matrix Algebra
STAT*2040 [0.50] Statistics I
STAT*2050 [0.50] Statistics II
STAT*3100 [0.50] Introductory Mathematical Statistics I
STAT*3110 [0.50] Introductory Mathematical Statistics II
STAT*3210 [0.50] Experimental Design
STAT*3240 [0.50] Applied Regression Analysis
STAT*3320 [0.50] Sampling Theory with Applications
STAT*3351 [0.50] Environmental Risk Assessment
STAT*4050 [0.50] Topics in Applied Statistics I
STAT*4060 [0.50] Topics in Applied Statistics II
STAT*4080 [0.50] Data Analysis
STAT*4350 [0.50] Applied Multivariate Statistical Methods
STAT*4360 [0.50] Applied Time Series Analysis
STAT*4510 [0.50] Advanced Risk Analysis

Diploma in Public Policy and Administration

The program is designed for those who wish to develop their skills in public sector management and public policy analysis. The requirement of 5.00 credits for the diploma is divided into 2 groups of courses: required courses and elective courses.

Students are encouraged to consult the Diploma in Public Policy and Administration program coordinator or Chair of the Department of Political Science with regard to the availability and on-going development of distance education courses.

Required Courses

POLS*1400*DE [0.50] Public Management and Administration
POLS*2250*DE [0.50] Public Administration
POLS*3520 [0.50] Public Policy: Challenges and Prospects
POLS*3440*DE [0.50] Corruption, Scandal and Political Ethics
POLS*4250 [0.50] Problems in Public Administration and Public Policy

Electives - at least 2.50 credits must be chosen from the following:

POLS*2300*DE [0.50] Canadian Government
POLS*3110 [0.50] Politics of Ontario
POLS*3210 [0.50] The Constitution and Canadian Federalism
POLS*3270 [0.50] Local Government in Ontario
POLS*3280 [0.50] Modern Political Ideologies
POLS*3330 [0.50] Politics and Trade Liberalization in the Americas
POLS*3370*DE [0.50] Environmental Policy Formation and Administration

POLS*3470 [0.50] Business-Government Relations in Canada
POLS*3670 [0.50] Comparative Public Policy and Administration

Co-operative Education

Co-operative Education options are offered in 28 majors. Co-op provides eligible students with the opportunity to alternate semesters of academic study with semesters of paid work experience. The work experience is related to the student’s academic program and/or career objectives. Admission can occur directly into semester 1 or in-course (but not beyond Academic Semester 3).

For further details refer to information on Co-operative Education in Section X--Degree Programs. Course requirements and work study sequences for specific majors are listed under the appropriate degree program in Section X--Degree Programs.

Distance Education

The Distance Education program, administered by the Office of Open Learning, supports academic departments in offering degree credit courses to students who choose to study outside the traditional classroom environment. Courses may come with a variety of learning resources, including: manuals, videotapes, audiotapes, audio CDs, DVDs, computer diskettes, CD-ROMs, etc., depending on the nature of the course. As well, most courses incorporate computer conferencing, e-mail, computer-based quizzes, and the use of the Internet. Distance education provides a contemporary means through which the University of Guelph continues its tradition of outreach and open learning opportunities.

Students may take distance education courses for a variety of reasons, including: to have flexibility in designing their own study schedules; to avoid timetable conflicts; to acquire credits while away on summer break or on a co-op job placement; to take courses unavailable in class in a given semester; to learn in an interactive online environment.

The University of Guelph recognizes the importance of distance learning and is committed to providing opportunities for the off-campus learner. A wide range of subject areas and course levels is available.

The following is a list of the courses that are offered in the distance format. When selecting these courses, section DE must be specified to indicate the distance education offering. Please consult Section XII—Description of Courses for course descriptions. Because additional courses are constantly being developed, please consult the Office of Open Learning, Room 160, Johnston Hall, 767-5000, email: info@open.uoguelph.ca for an updated listing of courses available by distance education and when they are scheduled to be offered. Course listings are also available at www.open.uoguelph.ca.

AGEC*2220*DE [0.50] Financial Accounting
AGEC*2230*DE [0.50] Management Accounting
AGEC*2300*DE [0.50] Organic Marketing
ANTH*1150*DE [0.50] Anthropology
BIOL*2060*DE [0.50] Ecology
BIOL*2210*DE [0.50] Introductory Cell Biology
BIOL*3450*DE [0.50] Introduction to Aquatic Environments
BIOM*2000*DE [0.50] Concepts of Physiology
BOT*1200*DE [0.50] Plants and Human Use
BOT*2000*DE [0.50] Plants, Biology and People
CHEM*1060*DE [0.50] Introductory Chemistry
CIS*1000*DE [0.50] Introduction to Computer Applications
CIS*1200*DE [0.50] Introduction to Computing
CIS*1500*DE [0.50] Introduction to Programming
CIS*1900*DE [0.50] Discrete Structures in Computer Science
CIS*2100*DE [0.50] Scientific Computing and Applications Development
COST*1000*DE [0.50] Introduction to Marketing Management
COST*2020*DE [0.50] Information Management
COST*2100*DE [0.50] Personal Financial Management
COST*3030*DE [0.50] Research Methods
DRMA*2500*DE [0.50] Contemporary Cinema
ECON*1050*DE [0.50] Introductory Microeconomics
ECON*1100*DE [0.50] Introductory Macroeconomics
ECON*2100*DE [0.50] Economic Growth and Environmental Quality
ECON*2150*DE [0.50] Introduction to Business Economics
ECON*2310*DE [0.50] Intermediate Microeconomics
ECON*2410*DE [0.50] Intermediate Macroeconomics
ECON*3550*DE [0.50] Theory of Finance
ECON*3560*DE [0.50] Economics of Equity Markets
EDRD*3550*DE [0.50] Economic Development for Rural and Smaller Communities
EDRD*3500*DE [0.50] Recreation and Tourism Planning
EDRD*3550*DE [0.50] Economic Development for Rural and Smaller Communities
ENGL*1200*DE [0.50] Reading the Contemporary World
ENGL*1210*DE [0.50] Major English Writers
ENVL*2210*DE [0.50] Introductory Apiculture
ENVL*2300*DE [0.50] Nature Interpretation
ENVL*3040*DE [0.50] Natural Chemicals in the Environment
ENVL*3050*DE [0.50] Natural Chemicals in the Environment
ENVS*2010*DE [0.50] Decision-making and Communication Skills
ENVB*2210*DE [0.50] Introductory Apiculture
ENVB*3040*DE [0.50] Environmental Risk Assessment
EDRD*3550*DE [0.50] Economic Development for Rural and Smaller Communities
EDRD*3500*DE [0.50] Recreation and Tourism Planning
EDRD*3550*DE [0.50] Economic Development for Rural and Smaller Communities
ENVL*2210*DE [0.50] Introductory Apiculture
ENVL*2300*DE [0.50] Nature Interpretation
ENVL*3040*DE [0.50] Natural Chemicals in the Environment
ENVL*3050*DE [0.50] Natural Chemicals in the Environment
ENVL*3050*DE [0.50] Natural Chemicals in the Environment
ENVS*2010*DE [0.50] Decision-making and Communication Skills
ENVB*2210*DE [0.50] Introductory Apiculture
ENVB*3040*DE [0.50] Environmental Risk Assessment
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>POLS<em>2300</em>DE</td>
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<td>POLS<em>1500</em>DE</td>
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<td>[0.50]</td>
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<td>Introductory Physics</td>
<td>[0.50]</td>
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<tr>
<td>PHIL<em>2100</em>DE</td>
<td>Critical Thinking</td>
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</tr>
<tr>
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<td>Philosophy of the Environment</td>
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<tr>
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Financial Assistance
Students registered in 3 or more courses of the General Studies program are eligible to apply to the Ontario Student Assistance Program (OSAP) if an Ontario resident. Students who are residents of other provinces must apply to their home province for financial assistance. General Studies students are eligible to apply for OSAP assistance for a maximum of 2 semesters. General Studies students who transfer to a degree program may continue to apply for OSAP.

Schedule of Studies
1. Students may take any undergraduate course offered by the University, as long as any stated prerequisites are met or the approval of the instructor is obtained.
2. Students may take Associate Diploma courses with the approval of the Director of the Associate Diploma program.
3. Students will not normally be eligible to continue in the General Studies program after enrollment in 20 courses.
4. The grade assigned for each course will become part of the student's University academic record.
5. Students who register in the General Studies program and who subsequently apply for transfer to a degree or diploma program, will be required to meet admission requirements for that program, and credit granted for courses taken in the General Studies program will be subject to the regulations pertaining to that program.

Tuition Fees
Students are advised to refer to Section VI--Schedule of Fees.

Undergraduate Regulations
Students are referred to Section VIII--Undergraduate Degree Regulations for additional information regarding registration, course selection, withdrawal from study, continuation of study, examination policy and requests for academic consideration.

Graduate Studies
The University of Guelph offers graduate programs in most departments and schools. These post-baccalaureate programs offer opportunities for personal, academic and professional growth. Students with a 70% average or higher should consider and investigate these options, beginning no later than their third undergraduate year. Decisions regarding the desired area of study and pursuit of scholarship support require forethought and planning. Information, application forms, and counselling are available through the graduate coordinators of each department/school. Students are also welcome to visit the Office of Graduate Program Services, Level 3, University Centre.

The University of Guelph offers opportunities for qualified students to do graduate work leading to the Master of Arts (M.A.), Master of Science (M.Sc.), Master of Landscape Architecture (M.L.A.), Master of Engineering (M.Eng.), Master of Science in Aquaculture (M.Sc. Aqua), Master of Business Administration (M.B.A.), Master of Fine Art (M.F.A.), Master of Science in Planning (M.Sc. Plan), Master of Applied Nutrition (M.A.N.), Doctor of Philosophy (Ph.D.), and Doctor of Veterinary Science (D.V.Sc.) degrees.

Interdisciplinary Studies
The University of Guelph offers many interdisciplinary programs that cross departmental and college boundaries. In addition, specific courses and specializations have been modelled on an interdisciplinary approach to the topic or subject area.

Courses with an interdisciplinary approach and content are listed in Section XII under the following headings: Humanities, Physical Science, and Social Science as well as Interdisciplinary University Courses.

The following list of specializations is not intended to represent all the university's interdisciplinary initiatives. Instead it identifies those specializations that involve a significant degree of collaboration between departments or colleges. For further details, refer to the appropriate undergraduate degree program information in Section IX.

Bachelor of Arts
Criminal Justice and Public Policy
Environmental Studies (Minor)
European Studies
Information Systems & Human Behaviour
International Development
Women's Studies

Bachelor of Commerce
Agricultural Business
Hotel and Food Administration
Human Resources Management
Management Economics in Industry & Finance
Marketing Management
Public Management
Tourism Management

Bachelor of Science (Biological Science)
Biomedical Toxicology
Earth Surface Science
Environmental Toxicology
Plant Biology

Bachelor of Science in Environmental Sciences

Open Learning
The University of Guelph serves the learning needs of people of all ages whose educational requirements may not match the program structure or services available through full-time undergraduate study. The adoption of the philosophy of lifelong learning, changes in the demographic characteristics of our communities, the explosion of new knowledge, and the effect of rapid technological advances on professional competence are major factors underlying the University's commitment towards alternative approaches to providing education through open learning.

The Office of Open Learning
The Office of Open Learning is the institutional focus for distance education, continuing education, and the Open Learning program. As such, the Office of Open Learning supports departments in the development and delivery of open learning activities. Courses and programs cover a broad spectrum of learning needs which include professional updating programs and general interest/knowledge enhancing courses.

The Open Learning Program
The Open Learning program is an open admission distance-only part time mode of study that provides access to degree-credit university courses for individuals who wish to study independently but are not interested in pursuing a degree at the University of Guelph at the present time. You may register in the Open Learning program, even if you are in another program or are registered at another educational institution. The Open Learning program extends the academic resources of the University to those interested in personal enrichment, professional updating, or eventual application to a degree program.

Open Learning program students must complete the same assignments and examinations as those in degree programs and are evaluated using the same standards. Upon successful completion of a course, learners receive the same credit weight for courses as would apply to courses taken within the degree program.

Continuing Education Option
Those not interested in receiving degree credit for courses may register as continuing education students. Learners taking courses in this way are not required to complete assignments or related exams.

Further information is available from the Office of Open Learning, Room 160 Johnston Hall, by e-mail: info@open.uoguelph.ca, by phone (519) 767-5000 or at www.open.uoguelph.ca.

Guaranteed Admission to a B.A. Program
Open Learning program students who have no previous post secondary experience and have completed four courses, (2.00 credits), with a 70% minimum cumulative average may transfer into the B.A. Program at the University of Guelph.

Applicants are advised to complete 2 courses (1.00 credit) from the College of Arts and 2 courses (1.00 credit) in the Social Sciences.

Open Learning Program Certificates and Diplomas
Certificate in Environmental Citizenship
Certificate in Environmental Conservation
Certificate in Food Science
Certificate in Hospitality Services
Certificate in Leadership
Diploma in Public Policy and Administration
(Refer to Certificates & Diplomas in this section for descriptions or contact the Office of Open Learning.)

Open Learning Program Courses*
*please check with the Office of Open Learning regarding the technology and resource requirements (e.g. computer, internet, VCR, audio cassette recorder, dvd, etc.) for the specific course(s) in which you are interested.

Please refer to Distance Education in this section for a listing of courses offered through the Open Learning Program.
Open Learning Scholarships/Bursaries

Open Learning Bursaries
The Office of Open Learning (OOL) staff and friends have established and contribute annually to a bursary fund, which initially will provide two $250 awards. These funds are intended to provide support for non-degree students, in need of financial assistance, who are willing to enroll in an Open Learning continuing education activity and/or in the Open Learning program (courses, certificates and diplomas). Apply to the Office of Open Learning by January 30th and July 30th for the following Fall and/or Winter and/or Summer semesters of study with a letter of application outlining financial need with pertinent supporting documentation. Applications must be submitted to: OOL Bursary Award Committee, Office of Open Learning, University of Guelph, Johnston Hall Room 160, Guelph, Ontario, N1G 2W1.

Qualification(s): Canadian citizens or permanent residents with the greatest financial need.

Amount: Two awards of $250.

The Malik Scholarship
Awarded in honor of retired faculty member Professor Henrick Malik, of the Department of Mathematics and Statistics in the College of Physical and Engineering Science.

Qualification(s): A student in the Open Learning program who achieves at least 80% and the highest final grade in a given year in the distance education course Statistics for Business Decisions (STAT*2060*DE)

Amount: One award of $150.

Distance Education
The Office of Open Learning facilitates the delivery of degree credit courses to students who are typically off-campus or wish to take distance courses in order to accommodate their schedules. The Office of Open Learning assists in course development and preparation and is the focal point of this activity by providing information, student support, and administration. Please refer to the Distance Education heading in this section for the listing of courses offered through the distance format.

Calendars and brochures outlining complete details of activities are available from the Office of Open Learning, Room 160 Johnston Hall, 767-5000, info@open.uoguelph.ca, or at www.open.uoguelph.ca.

Continuing Education
The Office of Open Learning annually offers over 70 professional development programs, courses, conferences, and certificates in collaboration with academic departments and/or professional organizations. For detailed information on learning opportunities offered by the Office of Open Learning contact us at tel: (519) 767-5000; fax (519) 767-1114; e-mail: info@open.uoguelph.ca; website: www.open.uoguelph.ca; or visit us in room 160 Johnston Hall.

Certificate Program In Couple & Family Therapy Studies (co-sponsored by the Ontario Association for Marriage and Family Therapy)
The Certificate in Couple and Family Therapy Studies is designed to provide practising therapists with specialized training and updating in the needs, problems and changing patterns of couple and family relationships. Systems theory is the primary, although not the only, theoretical orientation within the program. Attention to issues of gender, race, class, ethnicity and culture underlies all aspects of the program. Program faculty are clinical members of the American Association for Marriage and Family Therapy (AAMFT) and AAMFT-approved supervisors.

Courses in this program are designed to meet the education requirements for Clinical Membership in the American Association for Marriage and Family Therapy. All courses are delivered at a level of rigour equivalent to that of a Master's degree and require completion of a formal evaluation component, marked according to University of Guelph grading standards. Individuals successfully completing the required course of study will receive the Certificate in Couple and Family Therapy Studies from the University of Guelph and the Ontario Association for Marriage and Family Therapy. While completion of all six courses in the certificate program is encouraged, students are welcome to take courses for general interest or specific upgrading, provided they have adequate background and/or preparation. It is strongly recommended that students pursue a concurrent program of clinical practice and supervision. Prerequisite: A bachelor's degree.

Required Courses
Theories and Methods of Family Therapy I
Theories and Methods of Family Therapy II
Theories and Methods of Couple Therapy

Elective Courses (Choose 3)
Violence in Families
Human Sexuality and Sex Therapy
Divorce, Single Parenting and Re-marriage
Change Strategies in Therapy
Research in Marriage and Family Therapy
Professional Ethics in Marriage and Family Therapy

Family Therapy and Mental Health
Spirituality: A New Story in Family Therapy

Diploma in Human Resources Management
Human resources management is a system of interrelated activities such as training and development, compensation management, and labour relations that work towards satisfying organizational goals and objectives. Typically, managers in smaller organizations are responsible for these activities in addition to other operational responsibilities. In larger organizations, the human resources department generally has subject specialists who oversee each function area. Regardless of how the system of activities is administered, individuals responsible for managing a group of employees should have a practical understanding of management tools and techniques to effectively work with the most important resource in their organizations - their people.

The Diploma in Human Resources Management program provides essential management foundation skills and knowledge with particular emphasis on relating practitioner principles, policies and procedures to "real world" situations. Courses in the Diploma meet the HRPAO academic program requirements. This program consists of ten courses and is designed to meet the learning needs of individuals who currently work in a human resources environment or who have ambition to do so.

Required Courses
Human Resources Administration
Organization and Management
Finance and Accounting Concepts
Occupational Health and Safety
Salary Administration and Benefits
Training and Development
Labour-Management Relations
Human Resource Planning
Recruitment and Selection

One of the following two courses by distance education:
PSYC*3070*DE [0.50] Psychology in Human Resource Management
PSYC*3080*DE [0.50] Organizational Psychology

English Language Certificate Program
The University of Guelph’s English Language Certificate Program is an academic program designed to prepare students who are non-native English speakers for undergraduate and graduate degree studies.

The program prepares the student for university studies by focusing on the development of specific academic skills required for a successful university education. The elements of the English Language Certificate Program include academic preparation in grammar, reading, writing, listening and speaking.

Admitted participants are over 18, and have completed secondary school with good marks. They have achieved good scores on government university entrance exams (if applicable), have an intermediate level of English proficiency (approximately 450 TOEFL) and have an academic goal to study at university.

Online Certificate in Academic Writing
The Certificate in Academic Writing is an online distance program designed for people who wish to polish their written communication and achieve a skilled level of academic writing. The program is designed for those for whom English is a second language. Three courses make up the certificate: Introduction to Academic Writing, Intermediate Academic Writing and Advanced Academic Writing.

Online Academic Writing at the Graduate Level
This online course introduces future and current graduate students to the writing requirements of graduate study in a Western university. Students study and analyze different types (genres) of writing from the three disciplinary areas of arts, the physical and natural sciences, and the social sciences in order to better understand these texts’ function, audience and organization. These texts include abstracts, research proposals and thesis chapters. Through a small selection of readings, students are also introduced to the cultural dimension of graduate study at a Western university.

Equine Science Certificate
The Certificate consists of six distance education courses taken online. This program is designed to provide horse owners and those working in the industry with evidence based knowledge to improve the health and performance of horses in their care.

The courses are as follows:
Management of the Equine Environment
Equine Exercise Physiology
Equine Health and Disease Prevention
Equine Functional Anatomy
Growth and Development
Equine Nutrition

For details and to apply, please see http://www.EquineScienceCertificate.com
Landscape/Horticulture Online Certificate Programs

Creating Landscape Certificate
The Creating Landscapes Certificate is designed to provide landscape designers, contractors and gardening enthusiasts with the training and updating necessary for creating desirable outdoor living environments. The program focuses on historical influences on modern landscape design and the design process. Other topics include management principles for operating a successful business, the physical properties and uses of landscape construction material, and incorporating computer technology in creating successful designs.

Required Courses:
- Landscape Design
- Landscape Design II
- Landscape Construction
- Landscape Plants
- Computer Assisted Design
- Business Management Principles

Maintaining Golf Courses Certificate
The Maintaining Golf Courses Certificate is designed to provide turf managers and golf superintendents with turf identification and management skills, insights into golf course design and construction techniques, tree care and other best management practices related to the environmental care of golf courses. Challenges such as maintaining healthy playing conditions while respecting environmental needs such as wildlife health and water quality are also examined.

Required Courses:
- Turf Management
- Irrigation
- Golf Course Design and Construction
- Weed Management in Turf
- Tree Ecology in the Human Environment
- Environmental Management of the Golf Course

The Horticulturist Certificate
This online certificate is designed especially for gardeners wishing to enhance their knowledge and skills relating to the residential garden environment. The impact of soil conditions are a critical aspect of this study program. Basic horticulture and botany is discussed as are principles of plant care for ensuring optimum health. Students will learn about common plant pests and diseases and their effective treatments. They will begin to create beautiful and hardy landscapes through innovative residential garden design tactics and strategies.

Required Courses:
- Cultural Practices for Plants
- Introduction to Plant Identification
- Designing the Landscape
- Ornamental Plant Protection
- Introduction to Soil Science
- Weed Control in Horticulture
- The Home Gardener

Growing Plants for Profit Certificate
In the Growing Plants for Profit Certificate, students will learn how to effectively grow healthy crops while at the same time implementing sound business practices. Plant propagation techniques are thoroughly discussed as are the specifics of both greenhouse and nursery production. Business skills are offered to guide students through the complexities of running a profitable business operation. Plant identification techniques ensure that learners have a good understanding of the most exciting product choices.

Required Courses:
- Commercial Floriculture
- Landscape Plants
- Greenhouse Management
- Nursery Production
- Plant Propagation
- Business Management Principles

Sustainable Landscape Certificate
The Sustainable Landscapes Certificate is designed for students who wish to learn about innovative strategies which help to fortify the relationships between water and land, ensuring care of both environments. Design tactics to retain or enhance naturalized landscapes will be examined. Students will enhance their knowledge about tree health as it relates to both the individual part and woodland communities.

Required Courses:
- Land and Water Resources
- Landscape Plants
- The Naturalized Landscape
- Conserving Woodlands
- Tree Ecology in the Human Environment

For details and to apply, please see http://www.horticulturecertificates.com/.

Professional Association Affiliations
Several courses have been approved by the following associations and may be applied to each association's respective professional programs:
- Association of Administrative Assistants
- Canadian Golf Superintendents Association
- Canadian Payroll Association
- Certified Crop Advisers
- Golf Course Superintendents Association of America
- Human Resources Professionals Association of Ontario
- Industrial Accident Prevention Association
- Integrated Pest Management - Plant Health Care Council
- Ontario Association of School Board Officials
- Ontario Association for Marriage & Family Therapy
- Purchasing Management Association of Canada

Summer Studies (Summer Semester)
Because the university operates on a three semester system, a broad range of course offerings is available in the Summer Semester (May to August). During the summer months, degree credit courses are offered in a variety of formats to meet the needs of full-time and part-time students both on-campus and off-campus. In addition to regular semester courses running from May to August, there is a summer session (May to June) when degree courses are offered in a six week format. For scheduling information consult the Undergraduate Timetable, available from the Academic Records Section, in the University Centre, Level 3.

Distance education opportunities are also available during the summer. For further details, contact the Office of Open Learning in Johnston Hall.
XII. Course Descriptions

General Information

Course Labelling and Levels

Each course is identified by a two-part code. The first part of the code refers to the subject area, the second to the level of the course. Thus, the course PSYC*3570 is a course in the subject area of Psychology (PSYC*XXXX), and is of a level that places it among courses in the 3000 series. The series 1000, 2000, 3000 and 4000 numbers are intended to indicate progressively more demanding content, and correspondingly increasing competence on the part of the students enrolled in the course. Courses in the 1000 series are mainly for first year students, those in the 2000 series are mainly for second year students, and those in the 3000 series are for third year students. Similarly, courses in the 4000 series are mainly intended to be taken by students in the fourth year of honours programs. It is important that students planning their courses have clearly in mind the significance of these numbers so that they may guard against undertaking course work at levels for which they are insufficiently prepared. A two-semester course (e.g. AGR*2351/2) is taken over 2 continuous semesters and counts as 1 course attempt per semester for classification, continuation of study and calculation of fees. Two-semester courses cannot be split.

Course Information

The letters S, F, W indicate the University's intention to offer the course in the Summer (S), Fall (F) or Winter (W) semester during the academic year covered by this Calendar. Although courses normally will be offered in the semester indicated, students preparing their course programs are advised to consult the Undergraduate Course Timetable. The University cannot guarantee that all courses will be offered in the exact semester indicated. The letter U indicates that an intended offering has not been assigned to the course. Students should consult the Undergraduate Course Timetable posted on WebAdvisor <https://webadvisor.uoguelph.ca/> or contact the departments offering those courses to determine the semester offerings.

The figures in parentheses ( ) following the semester designation are a general guide to the lecture and laboratory contact hours per week, the first digit being the number of lecture hours and the second, the number of laboratory hours. The credit weight for each course appears in brackets [ ]. A credit weight of [0.50] indicates 10-12 student effort hours, including class time, on academic tasks associated with the course.

Detailed course descriptions are maintained at the office of the department offering the course. Some courses, designated "Experiential Learning" courses in the Calendar description, are deliberately designed to accommodate the need to grant academic credit for experiential learning external to regular courses, in such contexts as co-operative education, field observation/job shadowing, internship/externships, practical, service learning, or work study (and other approved experience). Prior approval for admission to these courses must be obtained from the department and instructor concerned.

Some courses are offered in the Guelph-Humber degree program and on the Humber campus only. Those courses will be identified in the course restriction information. See the University of Guelph-Humber web site at for more information about the Guelph-Humber degree programs (http://www.guelphhumber.ca/).

Course Prerequisites

In lists of course prerequisites, "or" conditions are spelled out explicitly, but "and" conditions are indicated with a comma " ," . For example: "CSTU*2270, FRHD*2010, NUTR*2010" means "CSTU*2270 and FRHD*2010 and NUTR*2010". A number of courses have stated prerequisites which are prior requirements for entry to the course. Students who do not satisfy course prerequisites, or who in the opinion of the instructor do not possess an equivalent background to that of the stated prerequisites, are not eligible to enrol in the course. When some specific background is desirable but not required, the course description will include a statement of recommended background. It is understood that the instructor may accept equivalent courses from other institutions in place of the stated prerequisites. Students who wish to enrol in courses for which they do not have the stated prerequisite(s) must obtain instructor approval as outlined in Section VIII, Undergraduate Degree Regulations and Procedures, in this Calendar.

Course Equates and Restrictions

Equates - Equate indicates a course identical to the one under which it is listed. The course may have been re-numbered or may be cross-listed under two subject areas. Students will not be permitted to register in equated courses.

Restrictions - A restriction is a "rule" that is placed on the computer system (Colleague) at the direction of an academic department so that particular students may not register in particular courses. The course may be restricted because there is sufficient overlap in content with another course so that it is inappropriate for the student to take a similar course for credit. In a different instance, the course may be restricted by "Instructor Consent" so that the student must discuss the special requirements of the course with the instructor before enrolling. Or, alternatively, the restriction may reflect a "Priority Access" designation for enrolment management purposes. (See Priority Access).
Agricultural Economics

Department of Agricultural Economics and Business.

AGEC*1100 Introduction to Business F (3-0) [0.50]
This course provides an overview as well as a foundation in the fundamentals of business management. The basic functions of business and management to be examined include: operations, human resources, marketing, finance, and strategic management. Small Business and entrepreneurship are also studied, along with other forms of business ownership, competition within a global economy, and the political and economic realities of business in Canada today. Students will develop basic competencies in business management through assignments and case studies requiring the practice of learned theory.

Equate(s): BADM*1000
Restrictions: Registration in BBRM.

AGEC*2220 Financial Accounting F,W (3-0) [0.50]
An introductory course designed to develop an understanding of accounting principles and their implication for published financial reports of business enterprises. The course approaches the subject from the view of the user of accounting information rather than that of a person who supplies the information.

Prerequisite(s): 1 of ECON*1050, ECON*1100, ECON*1210, ENGG*3240
Restrictions: Priority Access course. Enrolment may be restricted to particular programs or specializations. See department for more information.

AGEC*2223 Management Accounting F,W (3-0) [0.50]
This course emphasizes the use of accounting information to facilitate effective management decisions. Topics include cost determination, cost control and analysis, budgeting, profit-volume analysis and capital investment analysis.

Prerequisite(s): AGEC*2220
Restrictions: Priority Access course. Enrolment may be restricted to particular programs or specializations. See department for more information.

AGEC*2300 Organic Marketing S,F,W (3-0) [0.50]
Economic theory of markets principles are applied to the marketing of organically-produced and processed products, through exploring open market price formation, value added, marketing margins, alternative marketing outlets and branding. Adherence to organic production and marketing standards, quality management, supply chain management, and advertising and promotion issues are also addressed. Offered in Distance Education format only.

Prerequisite(s): COST*1000 or ECON*1050

AGEC*2410 Agrifood Markets and Policy W (3-0) [0.50]
Students will be provided with an introduction to agrifood markets, policies and institutions. Focus will be placed on: the role and function of futures markets; domestic agrifood policies; and agrifood trade policies, instruments and institutions. Economic analysis of contemporary issues in agrifood markets will be emphasized.

Prerequisite(s): AGR*2400
Co-requisite(s): ECON*2310
Restrictions: AGR*2402

AGEC*2700 Survey of Natural Resource Economics F (3-1) [0.50]
Natural resources in broad economic perspective. A discussion of factors that shape decisions concerning their use (or misuse), with illustrations of topical interest. This course is not normally offered to 7th or 8th semester students.

Prerequisite(s): ECON*1050 or ECON*1210

AGEC*3030 The Firm and Markets F (3-1) [0.50]
A course in microeconomic theory applied to agricultural economics research. The theory of the firm is used to analyze production and resource use in agriculture. Resource allocation issues, risk responsive decision-making, and firm strategy on vertical and horizontal integration are studied. Consumer theory is used to analyze food purchase decision. How theoretical relationships are quantified and used in the analysis of public policy issues is emphasized.

Prerequisite(s): ECON*2310, ECON*2770, ECON*3740

AGEC*3310 Operations Management F,W (2-1) [0.50]
The decision-making role of the operations manager in transforming inputs into desired outputs is the primary focus of this course. The major issues and problems of designing, scheduling, operating, and controlling the production system will be examined.

Prerequisite(s): AGEC*2220

AGEC*3320 Financial Management F,W (3-0) [0.50]
The viewpoint taken in the course is that of the senior financial officer of a business firm. The focus is on the management of cash, accounts receivable, inventory and short and intermediate term liabilities. Emphasis is placed on the analysis and forecasting of financial statements, and financial modeling for planning and controlling the growth of the business enterprise.

Prerequisite(s): 1 of AGEC*2230, HAFA*3070, HTM*3070
Restrictions: Registration in BCOMM programs, BA Management Economics programs, BA area of emphasis Economic & Business Development.

AGEC*3330 Intermediate Accounting F (3-0) [0.50]
A critical evaluation of accounting concepts, principles and practices in relation to both the traditional and current value accounting measurement models. Emphasis will be on the effect of alternative accounting practices and measurement models on income determination and asset valuation.

Prerequisite(s): 10.00 credits including AGE*C2220

AGEC*4000 Agricultural and Food Policy W (3-0) [0.50]
A critical analysis of agricultural income, marketing, adjustment and trade problems and policies in the developed countries, with particular emphasis on Canadian agricultural policies.

Prerequisite(s): 15.00 credits including ECON*2310

AGEC*4210 World Agriculture and Economic Development F (3-0) [0.50]
The role of agriculture in economic development. Analyses of economic policies and programs in developing countries and their effect on economic development.

Prerequisite(s): 10.00 credits including ECON*1050 and ECON*1100

AGEC*4220 Advanced Farm Management W (2-3) [0.50]
A course oriented toward practical application of theory and analytical principles to the identification, analysis and solution of farm business organization/management problems. Students work on a major farm project as management consultants with a farm owner/operator. The course builds upon students' prior training in accounting, finance, mathematical analysis, computer applications, economics, agriculture and farm management.

Prerequisite(s): 1 of AGE*C2410, AGE*C3320, AGR*2402, ECON*2770, instructor's consent

AGEC*4240 Futures and Options Markets W (3-0) [0.50]
An introduction to the study of the theory and application of futures, options and other derivative instruments for marketing, hedging, investment and speculative purposes. Emphasis is placed on applications of agricultural and financial instruments to real business situations.

Prerequisite(s): 1 of AGE*C2410, AGE*C3320, AGR*2402, ECON*3560, ECON*3660

AGEC*4250 Business Policy F,W (3-0) [0.50]
Business policy is a synthesis of the principles of business management with emphasis upon the formation of business decisions and policies. The purpose of this course is to enable the student to draw on analytic tools and factual knowledge from all other courses in analyzing comprehensive business problems.

Prerequisite(s): AGE*C3310, AGE*C3320, ECON*3560
Restrictions: Registration in semester 6 or higher.

AGEC*4290 Land Economics F (3-0) [0.50]
Economic principles and practice in allocating land among agricultural, urban and other uses in regional systems; contemporary trends, problems and policies in land planning, land purchase, valuation, mortgages and credit; assessing and taxing property. (Offered in even-numbered years.)

Prerequisite(s): AGE*C2700 or ECON*2310

AGEC*4310 Resource Economics W (3-0) [0.50]
This course explores the role of property rights and related institutions in natural resource stewardship. Potential applications of this perspective to natural resource policy, both in Canada and internationally, are considered. Classes use a discussion based approach. The learning objective for the course is the development of critical thinking skills. The readings emphasize original sources. Students are expected to conduct original research on some aspect of the role of property rights and related institutions in the resolution of a current natural resource stewardship problem.

Prerequisite(s): 1 of AGE*C2700, ECON*2310, ECON*2100, instructor consent

AGEC*4360 Marketing Research W (3-0) [0.50]
A study of the marketing research function in business with emphasis on its role in providing information to assist managers in making marketing decisions.

Prerequisite(s): 0.50 credits in statistics
AGEC*4370 Marketing Management F,W (3-0) [0.50]
The course focuses on the decision making role of the marketing manager who is responsible for formulating the strategic marketing plan. The theory of selecting market target(s) for the firm's product and/or services and the development of the marketing mix (product, price, promotion, distribution) with the aid of market research is covered. Note: Students with credit for this course may not proceed to COST*1000.

Prerequisite(s): 10.00 credits, (AGEC*2230 or COST*2600)
Equate(s): COST*4370

AGEC*4410 Sales and Sales Management W (3-0) [0.50]
This course is designed to develop professional selling skills. It includes the development of background knowledge in sales techniques as well as the application of this material to professional selling. Students will learn to plan, execute, and evaluate sales programs.

Prerequisite(s): 10.00 credits

AGEC*4500 Decision Science F (3-0) [0.50]
Quantitative techniques such as classical optimization, mathematical programming, simulation and input-output models are applied to firm, interregional, industry, and international problem situations in agricultural economics, including those dealing with resources and the environment. Time and risk and uncertainty dimensions are addressed.

Prerequisite(s): ECON*2770

AGEC*4550 Independent Studies I S,F,W (3-0) [0.50]
A project based independent study course for majors in Agricultural Economics (of the Bachelor of Arts or Bachelor of Science in Agriculture degree programs), Agribusiness (of the Bachelor of Commerce degree program), and Environmental Economics and Policy (of the Bachelor of Science in Environmental Sciences degree program).

Prerequisite(s): 10.00 credits including 1 of AGEC*2410, AGEC*2700, AGR*2401/2
Restriction(s): Permission of the instructor and Chair of the Department of Agricultural Economics and Business is required.

AGEC*4560 Independent Studies II S,F,W (3-0) [0.50]
An opportunity to conduct a second independent study project for majors in Agricultural Economics (of the Bachelor of Arts or Bachelor of Science in Agriculture degree programs), Agribusiness (of the Bachelor of Commerce degree program), and Environmental Economics and Policy (of the Bachelor of Science in Environmental Sciences degree program).

Prerequisite(s): 10.00 credits including 1 of AGEC*2410, AGEC*2700, AGR*2401/2
Restriction(s): Permission of the instructor and Chair of the Department of Agricultural Economics and Business is required.
Agriculture

Ontario Agricultural College, Dean's Office.

AGR*1100 Introduction to the Agri-Food System F (2-3) [0.50]
A survey of the agri-food system, with reference to current events and development in the various sectors. The course will include exposure to resources of the university and basic skills development in preparation for further study at the university level. It will introduce B.S.C. (Agr.), B.COMM. (Ag. Bus.), and B.A. (Ag. Ec.) students to the Experience Agriculture Program, Numeracy Companion, and the O.A.C. Writing Portfolio.

Restrictions(s): AGR*1150, UNIV*1500, enrolment in the B.S.C. (Agr.), B.COMM. (Ag. Bus.), or B.A. (Ag. Ec.) program

AGR*1250 Agrifood System Trends and Issues W (3-2) [0.50]
The course will improve the awareness and increase the critical appreciation and understanding of students for the breadth and complexity of the agriculture and food system from producer to consumer. Students will understand the ways in which consumers empower the various components of the food system. Students will gain experience in understanding major issues and consumer trends in the food system including those related to environment, food safety, and animal welfare. The role of the Canadian food system in world markets will be presented. Students will be introduced to the basic skills of problem-solving, report preparation, and delivery.

AGR*2301 Resources and Agroecosystems F (3-3) [0.50]
First part of the two-semester course AGR*2301/2. Refer to AGR*2301/2 for the course description. (Last offering Fall 2005, Winter 2006.)

AGR*2301/2 Resources and Agroecosystems F-W (1.00)
The course is an introduction to soil, air and water resources as they relate to one another with some emphasis on temporal and spatial variabilities both within and between landscapes of agroecosystems. The roles of geological, geomorphological, biological, climatic and temporal factors will be included. Responses to these influences will be developed in a framework of soils as a resource in the natural landscape, focusing on soil formation processes, properties, classification and uses. This is a two-semester course offered over consecutive semesters. When you select it you must select AGR*2301 in the Fall semester and AGR*2302 in the Winter semester. A grade will not be assigned to AGR*2301 until AGR*2302 has been completed. (Last offering Fall 2005, Winter 2006.)

Restrictions(s): AGR*1250, CHEM*1040, MATH*1080. 0.50 credits in biology

AGR*2302 Resources and Agroecosystems W (3-3) [0.50]
Second part of the two-semester course AGR*2301/2. Refer to AGR*2301/2 for course description. (Last offering Fall 2005, Winter 2006.)

AGR*2320 Soils in Agroecosystems F (3-3) [0.50]
This course is an introduction to soil resources with emphasis on management practices that will sustain the productivity of these resources and enhance the quality of the ecosystems of which they are a part. Students will develop a management plan for a farm that will take into account the roles of geological, geomorphological, biological, climatic and temporal factors on the formation, properties and uses of soils. The management plans will be placed in the broader context of provincial policies related to soil, air and water resources and local zoning regulations.

Restrictions(s): BIOL*1040, CHEM*1040, MATH*1080

AGR*2350 Animal Production Systems and Industry F (3-3) [0.50]
This course is designed to give students an overview of animal production systems and will consist of lectures dealing with major farm livestock species. Laboratories correlate with lectures and involve field trips, video and computer analyses of production alternatives.

Restrictions(s): BIOL*1030 or BIOL*1040

AGR*2400 Economics of the Canadian Food System F (3-1) [0.50]
This course introduces students to the major aspects of economics, business and resource use in the Canadian agrifood sector. Students will be exposed to the techniques used by agri-food firms to plan, invest and measure performance. Decision making under both certainty and uncertainty will be considered. Students will be shown how the market equilibrium model can be used to conduct welfare analysis and modified to account for imperfect competition and externalities.

Restrictions(s): AGR*1250, ECON*1050

AGR*2470 Introduction to Plant Agriculture F (3-3) [0.50]
The basic principles of plant morphology, nutrition, growth and development will be related to where and how agriculturally significant plants are grown. Agroecosystems and farming systems will be considered as frameworks for crop production analyses. The course uses examples from temperate, sub-tropical and tropical crops and cropping systems. Labs include problem-solving exercises in the context of plant production.

Restrictions(s): BIOL*1030

AGR*2500 Field Trip in International Agriculture W (3-0) [0.50]
A 2 week field study program to Costa Rica costing approximately $2000 per student in addition to regular tuition fees during winter semester reading week. Students will visit corporate and individual farms, university and government research stations and become familiar with agricultural production systems. Projects and/or assignments will be completed during the winter semester. Classes are scheduled to meet once a week in the evening during the winter semester. It is important that students identify their interest in taking this course by contacting the OAC Dean's Office in September of the previous year. A deposit of $875 in the form of a cheque made payable to the University of Guelph must be in the OAC Dean's Office by November in order to confirm a reservation for travel arrangements. Scholarship support is available to B.S.C.(AGR.) students through the Cavers Memorial Scholarship and the Wolf International Scholarships. Applications are due in Student Financial Services, Office of Registrarial Services by April 1. This course must be recorded as part of your Winter course selection and tuition and compulsory fees will be calculated accordingly.

Restrictions(s): AGR*1250 or registration in International Development

AGR*3010 Special Studies in Agricultural Science I S,F,W (3-0) [0.50]
A special study option that enables undergraduate students in semesters 5 through 8 to undertake specific projects in agricultural science or course(s) on an approved study abroad or exchange program at an accredited university. The topic of the special study will be determined in consultation with an OAC faculty member and the individual student. Students are responsible for making appropriate arrangements with faculty at the departmental and/or college level prior to registration for the course.

Restrictions(s): 10.00 credits

AGR*3500 Experiential Education F (0-0) [0.50]
Student initiated experiential learning opportunities can be developed as a credit course in consultation with a supervising faculty member. Details of the activities included in the program will be outlined in a learning contract initiated by the student and agreed by the faculty supervisor in the April prior to the commencement of the work experience. The employer will also provide a description of the project and/or the work experience. The course is designed to meet the needs of B.S.C.(AGR.) and Agricultural Business students. Interested students in other programs should consult the OAC Dean's Office.

Restrictions(s): 5.00 credits

AGR*4000 Seminar in International Agriculture W (3-0) [0.50]
A seminar course dealing with various aspects of international agricultural development programs. Normally taken in the final semester.

Restrictions(s): AGR*2500 or 1.00 credits in International Agriculture or registration in International Development

AGR*4010 Special Studies in Agricultural Science II S,F,W (3-0) [0.50]
A special study option that enables undergraduate students in semesters 5 through 8 to undertake specific projects in agricultural science. The topic of the special study will be determined in consultation with an OAC faculty member and the individual student. Students are responsible for making appropriate arrangements with faculty member prior to registration for the course.

Restrictions(s): 15.00 credits

AGR*4050 Professionalism and Agrology F (3-0) [0.50]
This course is designed for students in the final year of the B.S.C.(Agr.) program who wish to understand the responsibilities of professionals in agrology and the responsibilities that professional organizations have in Ontario and Canada. The course is offered in conjunction with the Ontario Institute of Agrologists and will be offered in a series of ten 3-hour evening sessions. The first three sessions will deal with the topics of professionalism, ethics and professional development and utilize materials prepared jointly by the OIA and OAC Access. The remainder of the course will be comprised of discussions of ethical issues and workshops that will help students develop their personal professional development plan, improve their personal resume, and provide a framework for identifying potential professional employment opportunities.

Restrictions(s): 15.00 credits
**AGR*4450 Research Project in Agriculture I S,F,W (0-12) [1.00]**

Independent study of a current topic in Agriculture designed to encourage senior undergraduates to conduct research in Agriculture. The course includes participation in meetings organized by the coordinator, work with a faculty advisor to develop a research project, formulate hypotheses, design and carry out preliminary experiments to test the hypotheses. Students will carry out independent library research, begin experimental work, prepare a written report and make a presentation to other students in the course of the research plan and preliminary results. Students must make arrangements with both the faculty supervisor and the course coordinator at least one semester before starting the course. Open to students in semesters 6, 7, and 8 of the B.SC. (Agr.) degree program. This course will normally be followed by AGR*4460 to provide 2 semesters to complete the research project.

*Prerequisite(s):* completion of semester 5 of the B.Sc. (Agr.) program, 70% cumulative average  
*Restriction(s):* AGR*4400, permission of the course coordinator (contingent on the availability and agreement of a faculty advisor)

**AGR*4460 Research Project in Agriculture II S,F,W (0-12) [1.00]**

Independent study of a current topic in Agriculture designed to encourage senior undergraduates to conduct research in Agriculture. The focus of this course will be the completion of the research plan developed in AGR*4450 by the student in consultation with a faculty advisor. The course includes participation in meetings organized by the coordinator and meetings with a faculty advisor to review research progress. Students will carry out independent research, prepare a written report of the research findings in a scholarly style and make a presentation to other students in the course of the research results. Open to students in semesters 7 and 8 of the B.SC. (Agr.) degree program.

*Prerequisite(s):* AGR*4450  
*Restriction(s):* AGR*4500, permission of the course coordinator and faculty advisor

**AGR*4500 Agrifood Industry Problem-Solving W (1-6) [0.50]**

This course will provide senior level students in agricultural and related sciences with experience in working as a team to propose solutions to agrifood industry problems. The perspective of the best solution will be the agrifood system rather than any individual stakeholder group. Attention will be given to integrating material from different disciplines, further refining skills in problem-solving, and communication. Students and faculty will meet prior to the conclusion of the preceding semester to identify industry projects, student expertise, and to develop a preliminary strategy.

*Prerequisite(s):* 3.50 credits at the 3000 level or 1.50 credits at the 4000 level in any agricultural science area or agricultural business area.
Anatomy

Department of Biomedical Sciences.

For course listings and descriptions see Biomedical Sciences.

Additional course listings may be found in the course descriptions for Human Kinetics, Veterinary Medicine and Zoology.
XII. Course Descriptions, Animal Science

Animal Science

Department of Animal and Poultry Science.

ANSC*2200 Principles of Aquaculture F (3-0) [0.50]
An introduction to the major principles of fish husbandry and preventive medicine as it relates mainly to the production of finned fish in Canada. (Offered in odd-numbered years.)
Prerequisite(s): 1.50 credits in biology

ANSC*2350 Horse Management Science F (3-2) [0.50]
An introduction to horse management designed to give those with an interest in the various segments of the horse industry a strong scientific basis for production and management decisions. The course includes study of the evolution of our current industry, the biology of growth, performance and management of the equine athlete. The evaluation of conformation as it relates to performance as well as aspects of behaviour, nutrition, reproduction and genetics consistent with the level of the course are included. Laboratories are designed to familiarize the student with current management and handling techniques in addition to augmenting information presented in lectures.
Prerequisite(s): BIOL*1040 or consent of the instructor

ANSC*2340 Structure of Farm Animals W (3-3) [0.50]
An introduction to the carcass structure of cattle, pigs, sheep and poultry. Animal growth and development are considered in relation to meat production. Practical work includes slaughtering of livestock. The course is for students intending to major in Animal Science.

ANSC*2360 Challenges and Opportunities in Animal Production F (2-3) [0.50]
This course consists of lecture presentations on current aspects of beef cattle, dairy cattle, swine and poultry production. Selected projects in these areas expose students to the practical application of animal science to production systems.
Prerequisite(s): AGR*2350

ANSC*3080 Agricultural Animal Physiology F (3-3) [0.50]
This course is an introduction to the physiology of domesticated farm mammals and birds. The course will emphasize homeostatic control of the major body systems. The lectures cover the nervous, cardiovascular, respiratory, urinary, immune, digestive, endocrine and reproductive systems. The lectures and laboratories are closely integrated.
Prerequisite(s): BIOL*2580

ANSC*3120 Introduction to Animal Nutrition F (3-2) [0.50]
The application of principles of nutrition to the development of diets and feeding programs for the various species of animals of agricultural importance. Department of Animal and Poultry Science.
Prerequisite(s): NUTR*3190 or NUTR*3210

ANSC*3150 Principles of Farm Animal Care and Welfare W (3-0) [0.50]
Students will be introduced to the main theoretical concepts of bioethics as related to contemporary animal agriculture. They will be familiarized with the history of the animal welfare movement, including its effect on producers and consumers of animal products. The course will emphasize the techniques of assessment of animal well-being and review legal requirements and voluntarily accepted codes for sound animal care and safe animal handling.
Prerequisite(s): 7.50 credits including AGR*2350 or AGR*2351/2

ANSC*4070 Applied Animal Behaviour F (3-2) [0.50]
The course deals with why farm animals behave as they do with reference to causation, function, ontogeny and phylogeny. Basic principles are illustrated by examples taken from all the common agricultural species. Emphasis is placed on the application of behavioural knowledge to improve animal production systems. Designing housing, facilities and management procedures to suit the behaviour of the animals in question is also dealt with.
Prerequisite(s): 1 of ANSC*3080, BIOM*3080, PSGY*3280 (may be taken as a co-requisite)

ANSC*4080 Environmental Management and Animal Productivity W (3-3) [0.50]
Basic concepts of environmental physiology and their application to animal housing and management will be introduced. The course will review the physics of heat flow, light and air quality as they relate to animal biology and health. Other aspects such as the physical environment that impact on animal health and well-being will be discussed.
Prerequisite(s): 1 of ANSC*3080, BIOM*3080, PSGY*3280

ANSC*4120 Fundamentals of Animal Reproduction W (3-3) [0.50]
The course supplies basic knowledge to aid in the explanation of reproductive phenomena in domestic animals. Special attention will be given to the regulatory mechanisms of male and female fertility.
Prerequisite(s): 1 of ANSC*3080, BIOM*3080, PSGY*3280

ANSC*4130 Reproductive Management and Technology W (3-2) [0.50]
Management of reproductive events at the farm level in the major classes of domestic livestock. An introduction to modern and emerging reproductive technologies as these relate to livestock propagation.
Prerequisite(s): ANSC*4120

ANSC*4140 Beef Cattle Nutrition W (1-5-2) [0.25]
A course designed for students to learn how to solve problems in feeding beef cattle. Relevant aspects of digestion and metabolism of nutrients as well as current issues of feeding beef cattle and diagnosing nutritional deficiencies will be included.
Prerequisite(s): ANSC*3120

ANSC*4150 Dairy Cattle Nutrition W (1-5-2) [0.25]
A course designed to apply principles in dairy cattle nutrition to solving on-farm nutritionally based problems. A case study approach will be used in conjunction with computer modeling and computer ration formulation programs.
Prerequisite(s): ANSC*3120

ANSC*4160 Poultry Nutrition F (1-5-2) [0.25]
A course designed to evaluate nutrient requirements of poultry. Students will learn how to apply feeding programs for meat, laying birds and breeders and how feeding affects poultry meat and egg composition.
Prerequisite(s): ANSC*3120

ANSC*4170 Swine Nutrition F (1-5-2) [0.25]
A course designed to explore details of evaluating feed ingredients and formulating diets for swine. Students will use models to evaluate various aspects of nutrient partitioning for growth and reproduction in pigs.
Prerequisite(s): ANSC*3120

ANSC*4470 Animal Metabolism W (3-0) [0.50]
Current concepts in whole animal metabolism and the quantitative techniques used to measure whole body metabolic kinetics will be presented. Tissue and organ specific biochemical processes will be integrated with whole body control mechanisms.
Prerequisite(s): NUTR*3190

ANSC*4480 Applied Endocrinology W (3-3) [0.50]
This course will examine the endocrine systems of farm animals and their applications to livestock production. Considerable emphasis will be given to projects involving the quantification of endocrine responses in the cow, the pig and the chicken.
Prerequisite(s): 1 of ANSC*3080, BIOM*3080, PSGY*3280, 0.50 credit at the 3000 level in Physiology

ANSC*4500 Horse Nutrition W (1-5-2) [0.25]
This course is designed to provide students with the most current knowledge of nutrition of horses and other domestic non-ruminant herbivores. Influence of nutrition on musculo-skeletal development and function will be emphasized. (Offered in odd-numbered years.)
Prerequisite(s): NUTR*3190 or NUTR*3210

ANSC*4510 Pet Nutrition F (1-5-2) [0.25]
A course in which students learn about nutrient requirements, feed formulation and nutritional idiosyncrasies for dogs, cats, pocket and exotic pets. (Offered in odd-numbered years.)
Prerequisite(s): NUTR*3190 or NUTR*3210

ANSC*4610 Critical Analysis in Animal Science W (3-0) [0.50]
The topic will be presented to the group as a written paper in journal format, as a poster, and as a formal seminar. This course is designed for students in their final year of the Animal Biology Major.
Prerequisite(s): 12.00 credits including 2.00 in animal sciences
Anthropology
Department of Sociology and Anthropology.
The Department of Sociology and Anthropology offers three types of courses: sociology courses with the prefix SOC*; anthropology courses with the prefix ANTH*; and departmental courses with the prefix SOAN*.
Courses will normally be offered in the semesters designated. For information on other semesters these courses will be offered and the semesters those courses without designations will be offered, please check with the department. In addition to regularly scheduled courses, students may elect to do independent study. A student who wishes to do a reading course should first consult the professor with whom he/she wishes to work. Please note: a student is allowed a total of 1.00 credits only for reading courses.
Anthropology credit may also be given for some Sociology courses, with the exception of SOC*3840 through SOC*4910 inclusive. See a Sociology/Anthropology Faculty Advisor for approval of substitutions.
Please note: The availability of third and fourth year seminar courses will vary. Students must check with the Department of Sociology and Anthropology to see when seminar courses are available.

ANTH*1150 Anthropology S,F,W (3-0) [0.50]
An introductory course dealing with humankind from a broad historical and cross-cultural perspective. Theoretical models, case studies and specific methods will be presented. Course topics may include the origin and transformations of human society, the relationship between biological and cultural traits, human language, variation in family structure and religion, the economic and political aspects of human society. (In spring semester offered through distance education format only.)

ANTH*2160 Social Anthropology U (3-0) [0.50]
This course will cover basic concepts that contribute to various anthropological approaches to the study of culture and society, such as the case study method and participant observation. The development of theory and methods will be examined through reading selected classic and contemporary ethnographies.
Prerequisite(s): ANTH*1150

ANTH*2650 Prehistory of Canadian Native People F (3-0) [0.50]
An introduction to native studies which uses archaeological, ethno-historical and contemporary materials to examine the culture and social organization of Canadian Indians and Inuit from the early beginnings to European contact.
Prerequisite(s): ANTH*1150

ANTH*2660 Contemporary Native Peoples of Canada W (3-0) [0.50]
An analysis of the impact of Euro-Canadian society on native culture. Particular emphasis will be given to contemporary issues relating to Canadian native peoples (Indians, Inuit and Metis) such as education, treaties and reserves, land claims, government administration and economic development. (Offered in even-numbered years.)
Prerequisite(s): ANTH*1150 or SOC*1100

ANTH*3400 The Anthropology of Gender W (3-0) [0.50]
This course will address theoretical innovation in the discipline of socio-cultural anthropology in the study of gender and feminist issues on the basis of cross-cultural ethnographic case studies. Theoretical problems such as gender inequality, complementarity, the domestic/public divide, ritual and symbolic valuations and the division of labour will be considered in the context of cultural relativity. (Offered in even-numbered years.)
Prerequisite(s): 10.00 credits including (ANTH*2160 or SOAN*2120 or WMST*3000)

ANTH*3670 Indigenous Peoples: Global Context W (3-0) [0.50]
This course will focus on aboriginality as a political and cultural identity. Historical, political, and cultural similarities between indigenous peoples the world over will be traced and key issues such as assimilation, cultural survival, protection of the commons, and the environment and cultural identity within the nation state will be examined. International organizations of indigenous peoples will be considered as well as other forms of transnational assertions of common identity and resistance. (Offered in odd-numbered years.)
Prerequisite(s): (1 of ANTH*2160, ANTH*2650, ANTH*2660, SOC*2660, IDEV*2010, SOAN*2120

ANTH*3690 Anthropological Theory U (3-0) [0.50]
A review of the major social anthropological theories of the Twentieth Century, including structural functionalism, cultural materialism and French structuralism. This course is intended to present the current state of the discipline, its problems and prospects.
Prerequisite(s): ANTH*2160, SOAN*2120

ANTH*3770 Kinship and Social Organization U (3-0) [0.50]
This course will deal with the theoretical implications of the study of kinship systems for an analysis of human society in general, including a comparative study of the social organization of kinship-based societies.
Prerequisite(s): ANTH*2160, SOAN*2120

ANTH*3840 Seminar in Anthropology F,W (3-0) [0.50]
This course will be offered as a structured seminar on various topics depending upon the interests of the faculty member teaching the course. Topics will be announced and course outlines will be available at course selection. The availability of third and fourth year seminar courses will vary. Students must check with the Department of Sociology and Anthropology to see when seminar courses are available.
Prerequisite(s): 10.00 credits including ANTH*2160, SOAN*2120

ANTH*3850 Seminar in Anthropology F,W (3-0) [0.50]
This course will be offered as a structured seminar on various topics depending upon the interests of the faculty member teaching the course. Topics will be announced and course outlines will be available at course selection. The availability of third and fourth year seminar courses will vary. Students must check with the Department of Sociology and Anthropology to see when seminar courses are available.
Prerequisite(s): 10.00 credits including ANTH*2160, SOAN*2120

ANTH*3950 Special Projects in Anthropology S,F,W (3-0) [0.50]
This special study option/reading course is designed to provide advanced undergraduates with an opportunity to explore independently the frontiers and foundations of a field of knowledge. Under supervision, the student will study in greater depth topics related to regular upper-level courses offered in the department which the student has taken or is taking. Permission of the instructor who will be supervising the study is required.
Prerequisite(s): 10.00 credits
Restriction(s): Instructor consent required. Please note, a student is allowed a total of 1.00 credits only for reading courses.

ANTH*4230 Regional Ethnography U (3-0) [0.50]
A systematic in-depth study of regional ethnography with attention to issues of representation, within the context of a particular historical, political, and economic setting. Focus may be given to a specific geographical area such as part of Latin America, Sub-Saharan Africa, Asia, or Oceania.
Prerequisite(s): 12.50 credits including [(1 of ANTH*3400, ANTH*3770, SOAN*3070) or IDEV*2010, SOAN*2120]

ANTH*4300 Anthropological Issues W (3-0) [0.50]
Current issues and future trends in the discipline of socio-cultural anthropology will provide the subject matter of this variable content course. This course is meant to provide an opportunity for socio-cultural anthropology majors to consider the latest developments in the sub-discipline. Course topics will be announced and course outlines will be available at course selection time.
Prerequisite(s): 15.00 credits including ANTH*3690, SOAN*3070

ANTH*4440 Seminar in Anthropology F,W (3-0) [0.50]
This course will be offered as a structured seminar on various topics depending upon the interests of the faculty member teaching the course. Topics will be announced and course outlines will be available at course selection. The availability of third and fourth year seminar courses will vary. Students must check with the Department of Sociology and Anthropology to see when seminar courses are available.
Prerequisite(s): 12.50 credits including (ANTH*3690 or SOC*3310), SOAN*3070

ANTH*4540 Seminar in Anthropology F,W (3-0) [0.50]
This course will deal with the theoretical implications of the study of kinship systems for an analysis of human society in general, including a comparative study of the social organization of kinship-based societies.
Prerequisite(s): ANTH*2160, SOAN*2120

ANTH*4640 Seminar in Anthropology F,W (3-0) [0.50]
This course will be offered as a structured seminar on various topics depending upon the interests of the faculty member teaching the course. Topics will be announced and course outlines will be available at course selection. The availability of third and fourth year seminar courses will vary. Students must check with the Department of Sociology and Anthropology to see when seminar courses are available.
Prerequisite(s): 12.50 credits including (ANTH*3690 or SOC*3310), SOAN*3070
<table>
<thead>
<tr>
<th>Course Code</th>
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<th>Prerequisite(s)</th>
<th>Restriction(s)</th>
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</thead>
<tbody>
<tr>
<td>ANTH*4700</td>
<td>Seminar: Theoretical Issues in Anthropology U (3-0) [0.50]</td>
<td>12.50 credits including ANTH<em>3690, SOAN</em>3070</td>
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<tr>
<td>ANTH*4740</td>
<td>Seminar in Anthropology F,W (3-0) [0.50]</td>
<td>12.50 credits including (ANTH<em>3690 or SOC</em>3310), SOAN*3070</td>
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</tr>
<tr>
<td>ANTH*4840</td>
<td>Seminar in Anthropology F,W (3-0) [0.50]</td>
<td>12.50 credits including (ANTH<em>3690 or SOC</em>3310), SOAN*3070</td>
<td></td>
</tr>
<tr>
<td>ANTH*4880</td>
<td>Special Projects in Anthropology S,F,W (3-0) [0.50]</td>
<td>12.50 credits</td>
<td>Instructor consent required. Please note, a student is allowed a total of 1.00 credits only for reading courses.</td>
</tr>
<tr>
<td>ANTH*4890</td>
<td>Special Projects in Anthropology S,F,W (3-0) [0.50]</td>
<td>12.50 credits</td>
<td>Instructor consent required. Please note, a student is allowed a total of 1.00 credits only for reading courses.</td>
</tr>
<tr>
<td>ANTH*4900</td>
<td>Honours Anthropology Thesis I S,F,W (3-0) [0.50]</td>
<td>15.00 credits including ANTH<em>3690, (SOAN</em>3070 or SOAN*3120)</td>
<td>Instructor consent required. As well as a cumulative average of 70% in all Sociology and Anthropology courses.</td>
</tr>
<tr>
<td>ANTH*4910</td>
<td>Honours Anthropology Thesis II S,F,W (3-0) [0.50]</td>
<td>ANTH*4900</td>
<td>Instructor consent required.</td>
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</tbody>
</table>
**Art History**

**School of Fine Art and Music.** Students with a special interest in particular courses in Art History should consult the School concerning prerequisites.

**ARTH**1220 The Visual Arts Today F (3-0) [0.50]
An introduction to contemporary visual culture, its current controversies and its historical roots. The avant-grade movements of the modern period and the impact of new technologies and media will be examined within a rich historical context. Topics will include international exhibitions, selling art, art and popular culture, censorship, and the relation between words and images.

**ARTH**1510 Art Historical Studies I F (3-0) [0.50]
A consideration of the visual arts in the Western tradition. Emphasis will be placed on historical and critical analysis of key monuments and on the prerequisite technology, as well as on various ways of looking at the visual past and present. Focus will be on the visual arts from prehistory through the Middle Ages.

**ARTH**1520 Art Historical Studies II W (3-0) [0.50]
A consideration of the visual arts in the Western tradition. Emphasis will be placed on historical and critical analysis of key monuments and on the prerequisite technology, as well as on various ways of looking at the visual past and present. Focus will be on the visual arts from the Renaissance to today.

**ARTH**2050 Arts of the Americas: Latin America F (3-0) [0.50]
An exploration of Latin American art in the context of cultural, social and political experience, with emphasis on the work of the painter Frida Kahlo, the Mexican muralists, performance artists Guillermo Gomez-Pena and Coco Fusco, and other important contemporary artists who have represented identity, culture, and political experience as complex and multifaceted because they have lived between nations and cultures.

**ARTH**2060 Arts of the Americas: Aboriginal Perspectives W (3-0) [0.50]
An introduction to the aboriginal cultures of North, South, and Central America with special emphasis on the pre-contact period. The interdisciplinary approach will take into account recent debates about methodology, ethnocentrism, and aboriginal viewpoints.

**ARTH**2070 Arts of the Americas: The USA F (3-0) [0.50]
In art, the 20th century has been referred to as "The American Century." Artists in the USA have a tradition of creating new visual languages, of using new ideas and technologies, and of representing the vanguard. Where did these ideas originate, and how has the USA determined our notions of what art is? This survey course focuses on modern American artists, on the evolution and growth of modern visual culture, and on how technologies and societies impact on artistic taste.

**ARTH**2120 Museology W (3-0) [0.50]
The course will examine the history of collections, traditions of cultural representation and display, constructions of authenticity, trade and exchange.

**ARTH**2150 Western Art: Greece F (3-0) [0.50]
A survey of Ancient Greek Art and Archaeology, with stress on form and function plus stylistic trends and aesthetic values. The course will illuminate the cultural, social, and political life in Ancient Greece. (Also listed as CLAS*2150).

Equate(s): CLAS*2150

**ARTH**2280 Western Art: Modern Architecture W (3-0) [0.50]
An investigation of architectural theory and practice within the social and spatial complexities of national and international life.

**ARTH**2290 Western Art: Photographic Media W (3-0) [0.50]
An introduction to the history of photography through its application in contemporary visual arts.

**ARTH**2480 Introduction to Art Theory and Criticism F (3-0) [0.50]
This course provides an overview of some of the most significant methodological approaches and critical practices used by art historians to write about visual culture. Traditional methods of art historical analysis include connoisseurship, iconography, and formalism. With these we will be exploring newer interpretative models and multidisciplinary approaches such as structuralism, semiotics, post-structuralism, and psychoanalytic theory as well as political theories such as feminism and socio-cultural theory.

Prerequisite(s): ARTH*1510, ARTH*1520, SART*1060

**ARTH**2490 Arts of the Americas: Canada F (3-0) [0.50]
The visual arts in Canada from the earliest indigenous traditions to the present day.

**ARTH**2540 Western Art: Medieval F (3-0) [0.50]
The visual arts during a period when the Christian Church built a new synthesis out of the legacies of the late Roman Empire and its "barbarian invaders."

**ARTH**2550 Western Art: Italian Renaissance F (3-0) [0.50]
An investigation of the myths and realities of the Renaissance in the visual arts. The artists to be studied will include Giotto, Duccio, Ghiberti, Donatello, Alberti, the Bellini, Verrocchio and Michelangelo. Their careers will be placed against the theoretical beginnings of art writing and the intricate relationships of the emerging city-states of Siena, Florence, Milan, and the republic of Venice.

**ARTH**2580 Western Art: Late Modern S,F (3-0) [0.50]
A study of the historical avant-gardes in the social and political contexts of the period 1900-1950.

**ARTH**2600 Western Art: Early Modern W (3-0) [0.50]
A study of visual culture as it was transformed by the revolutions - industrial, political, and colonial - of the eighteenth and nineteenth centuries. (Offered in even-numbered years.)

**ARTH**2950 Western Art: Baroque W (3-0) [0.50]
The visual arts in an age of religious crisis and the growth of great trading empires.

**ARTH**3010 Americas: Canada W (3-0) [0.50]
The wide range of contemporary Canadian visual arts, from painting to new technological media, from 'high' culture to punk, will be examined in the context of specifically Canadian social and historical conditions during the modern and post-modern periods. (Offered in odd-numbered years.)

Prerequisite(s): 10.00 credits

**ARTH**3050 Americas: Meso America F (3-0) [0.50]
An investigation of the history and artistic traditions of pre-contact America with special focus on selected cultural areas. The course will bring together such perspectives as archaeology, art history and ethnography.

Prerequisite(s): 10.00 credits

**ARTH**3060 Americas: Public Art W (3-0) [0.50]
An investigation of what constitutes the "public" and the "private" domain in the arenas of art and visual culture. Provocative iconography, matters of race, nationality, sexuality, language, and identity in artistic practice, issues of censorship, controversial shows and exhibitions, the ethics of propriety and impropriety will be considered. Artists such as Linda Montano, Andres Serrano, Keith Haring, Annie Sprinkle, Robert Mapplethorpe and others will be discussed.

Prerequisite(s): 10.00 credits

**ARTH**3100 Perspectives: Structure and Space in Renaissance and Baroque Art F (3-0) [0.50]
An investigation of the visual arts in Europe in the 16th and 17th centuries with special emphasis on issues of illusionism, mimesis, and the representation of space. (Offered in even-numbered years.)

Prerequisite(s): 10.00 credits

Restriction(s): ARTH*3560

**ARTH**3150 Space: Roman Art and Urbanism W (3-0) [0.50]
Roman art and urbanism from the Early Republic to the end of the imperial period. The course will survey the developments of Roman art with an emphasis in architecture, sculpture and painting. It will illuminate the development of the urban space in the context of cultural, social and political life. (Also listed as CLAS*3150). (Offered in even-numbered years.)

Equate(s): CLAS*3150

Restriction(s): ARTH*3530 , ARTH*4500

**ARTH**3200 Colour: Practice and Meanings in Western Art W (3-0) [0.50]
An exploration of the role colour has played in the work of artists in the Western tradition. The studio practice of selected artists and regional schools will be examined in the light of their own historical theories about colour and of modern scientific investigations of optics and perception.

Prerequisite(s): 10.00 credits including two from the Western art area of focus.

Restriction(s): ARTH*2560

**ARTH**3210 Critical Issues F (3-0) [0.50]
An investigation of art and its histories. Art writing, art history, and art historical methodology will be examined through the work of key art historians, cultural critics, and philosophers such as Clement Greenberg, Rosalind Krauss, Griselda Pollock, and Jacques Derrida for example. Critical issues such as intention and reception, authorship, creativity and originality will be discussed. (Offered in odd-numbered years.)

Prerequisite(s): ARTH*2480
<table>
<thead>
<tr>
<th>Course Code</th>
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<th>Credits</th>
<th>Prerequisite(s)</th>
<th>Restriction(s)</th>
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<tbody>
<tr>
<td>ARTH*3220</td>
<td>Nationalism and Identity in Art W (3-0) [0.50]</td>
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<tr>
<td>ARTH*3460</td>
<td>English Art, 1750 to Present F (3-0) [0.50]</td>
<td></td>
<td>2 of ARTH<em>250, ARTH</em>2950, ARTH<em>3100, ARTH</em>3550, ARTH<em>3560, ARTH</em>3640</td>
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<tr>
<td>ARTH*3520</td>
<td>Idea: Art Since 1950 F (3-0) [0.50]</td>
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<tr>
<td>ARTH*3540</td>
<td>Image: The Arts in the High Middle Ages W (3-0) [0.50]</td>
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<tr>
<td>ARTH*3550</td>
<td>Lives: Aspects of High Renaissance Art W (3-0) [0.50]</td>
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<tr>
<td>ARTH*3570</td>
<td>Display: Visual Culture in Late 19th Century Europe W (3-0) [0.50]</td>
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<tr>
<td>ARTH*3640</td>
<td>Objects: Baroque Art and Rococo Art F (3-0) [0.50]</td>
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<tr>
<td>ARTH*3780</td>
<td>Gender and Art W (3-0) [0.50]</td>
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<tr>
<td>ARTH*4050</td>
<td>Questions in the Americas I W (3-0) [0.50]</td>
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<td>2 of ARTH<em>2050, ARTH</em>2060, ARTH<em>3050, ARTH</em>3220</td>
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<tr>
<td>ARTH*4060</td>
<td>Questions in the Americas II F (3-0) [0.50]</td>
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<td>2 of ARTH<em>2070, ARTH</em>2490, ARTH<em>3010, ARTH</em>3060, ARTH*3220</td>
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<tr>
<td>ARTH*4150</td>
<td>Questions in Western Art II F (3-0) [0.50]</td>
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<td>2 of ARTH<em>2540, ARTH</em>3150, ARTH<em>3200, ARTH</em>3540</td>
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### Arts and Sciences

**Dean's Office, College of Arts.**

Registration in ASCI* courses is limited to students in the Bachelor of Arts and Sciences degree program.

#### ASCI*1000 Society and Science I: Historical Perspectives F (3-0) [0.50]

This course explores historically the complex interrelations between science and society. It focuses on the ways in which science has both shaped, and been shaped by, its larger social and cultural contexts.

**Restriction(s):** HIST*1250. Registration in the Bachelor of Arts and Sciences degree program.

#### ASCI*1010 Society and Science II: Current Issues W (3-0) [0.50]

This interdisciplinary course examines scientific and technological activities in modern society, including a number of current controversies. Case studies and debates will be used to examine the multiplicity of impacts and reactions to these activities.

**Prerequisite(s):** ASCI*1000

**Restriction(s):** Registration in the Bachelor of Arts and Sciences degree program.

#### ASCI*2000 Modes of Inquiry and Communication Across Disciplines F,W (3-0) [0.50]

This course considers the process of inquiry and quest for knowledge in the natural and applied sciences, and the social sciences and humanities as they are constituted as disciplines within the modern university. The course will consider the social forces that shape inquiry, including funding for research, and consider the communication of findings, both inside and outside the academy.

**Prerequisite(s):** ASCI*1000

**Restriction(s):** Registration in the Bachelor of Arts and Sciences degree program.

#### ASCI*3000 Arts and Sciences Community Project W (0-3) [0.50]

This course integrates the curricular, co-curricular and cross-disciplinary strands of the Arts and Sciences program through continued academic study and its application, modification, and critique in a community context. Students will conduct research and seminars on a selected topic while simultaneously completing a placement in a community agency appropriate to that topic. (See the B.A.S. program website for topics.)

**Prerequisite(s):** ASCI*2000

**Restriction(s):** ASCI*3100. Registration in the Bachelor of Arts and Sciences degree program.

#### ASCI*3100 Case Studies in Arts and Sciences Research F (3-0) [0.50]

This variable-content course introduces students to case studies in the integration of academic knowledge and practices with social movements, investigating the ways in which cultural, social, and scientific endeavours meet to work on real-world problems. The course may contain both historical and current case studies.

**Prerequisite(s):** ASCI*2000

**Restriction(s):** ASCI*3000. Registration in the Bachelor of Arts and Sciences degree program.

#### ASCI*4000 Arts and Sciences Honours Seminar F,W (3-0) [0.50]

This senior-level integrating course builds on the principles learned in ASCI*2000, and requires research into an area of investigation relevant to the interdisciplinary focus of the program. Students will examine a topic from multiple theoretical and disciplinary perspectives, explore appropriate methodological approaches, prepare working bibliographies and annotations, and report on research. Students who take ASCI*4010 will build on work completed in ASCI*4000.

**Prerequisite(s):** 12.00 credits including ASCI*2000

**Restriction(s):** Registration in the Bachelor of Arts and Sciences degree program.

#### ASCI*4010 Arts and Sciences Honours Research Seminar W (3-0) [0.50]

Under faculty supervision students will plan, develop, peer-edit and complete a major paper on a research topic developed in ASCI*4000 or revised therefrom. Designed to function as a senior-level writing seminar, this course is particularly recommended to students who plan to pursue graduate study and who have a cumulative average of at least 75%.

**Prerequisite(s):** ASCI*4000

**Restriction(s):** Registration in the Bachelor of Arts and Sciences degree program.

#### ASCI*4020 Topics in Arts and Sciences Research F,W (3-0) [0.50]

This variable-content course provides a senior-level seminar experience in the conduct, presentation, and writing of research relevant to the interdisciplinary core of the Bachelor of Arts and Sciences degree program. (See the B.A.S. website for topics.)

**Prerequisite(s):** 12.00 credits including ASCI*2000

**Restriction(s):** Registration in the Bachelor of Arts and Sciences degree program.
### Biochemistry

#### BIOC*2580 Introductory Biochemistry S,F,W (3-3) [0.50]
The evolution, chemical structure, and biological roles of the major molecular components of the cell: proteins, nucleic acids, lipids, and carbohydrates, enzymology, intermediary metabolism, with emphasis on catabolic processes.
*Prerequisite(s):* CHEM*1050 or CHEM*2300

#### BIOC*3560 Structure and Function in Biochemistry F,W (3-0) [0.50]
This course develops the understanding of biochemical processes, by examining the enzymatic molecular mechanisms underlying specific cellular and physiological systems. Examples may include oxygen binding/transport and the evolution of globin genes/proteins; regulation of carbohydrate and lipid metabolism; proteins that change shape, including enzymes, membrane proteins, and prion proteins, blood clotting; neurotransmission.
*Prerequisite(s):* BIOC*2580

#### BIOC*3570 Analytical Biochemistry S,F (3-3) [0.50]
The tools and techniques by which biological molecules are isolated, separated, identified, and analyzed. Detailed discussion of experimental methods for macromolecule purification characterization.
*Prerequisite(s):* (CHEM*2400 or CHEM*2480), BIOC*2580
*Restriction(s):* MICR*3110

#### BIOC*4520 Metabolic Processes F (3-0) [0.50]
An in-depth study of the role of bioenergetics, regulation, and chemical mechanisms in carbohydrate, lipid, and nitrogen metabolism.
*Prerequisite(s):* BIOC*3560 or BIOC*3570

#### BIOC*4540 Enzymology W (2-4) [0.50]
A laboratory-intensive course. Enzyme active sites and the mechanisms of enzyme action; enzyme kinetics and regulation; recombinant proteins and site-directed mutagenesis as tools for understanding enzymes.
*Prerequisite(s):* BIOC*3560 (may be taken concurrently), BIOC*3570

#### BIOC*4550 Biochemistry and Structure of Macromolecules F (3-0) [0.50]
Structure, function, and physical conformation of proteins and nucleic acids, biophysical and computational techniques for the study of biological macromolecules.
*Prerequisite(s):* (BIOC*3570 and 1 of CHEM*2820, CHEM*2880) or (BIOC*3560 or CHEM*3240)

#### BIOC*4570 Applied Biochemistry F (3-0) [0.50]
Biochemical engineering of the pathways for production of amino acids, antibiotics, proteins, enzymes, and antibodies for applications in industry, medicine and scientific research.
*Prerequisite(s):* BIOC*3560 or BIOC*3570

#### BIOC*4580 Membrane Biochemistry W (3-0) [0.50]
An examination at the molecular level of structure and functions of cell membranes, cell surfaces and associated structures. Topics may include: membrane lipids; membrane protein structure; membrane transporters; ATP production; cytoskeleton; cell surface carbohydrates; membrane biogenesis; signal transduction.
*Prerequisite(s):* BIOC*3560 or BIOC*3570
### Biology

**Introduction**

Department of Human Health and Nutritional Sciences.

Department of Integrative Biology.

Department of Molecular and Cell Biology.

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<thead>
<tr>
<th>Course Code</th>
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</tr>
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<tbody>
<tr>
<td>BIOL*2060</td>
<td>Biostatistics and the Life Sciences W (3-2) [0.50]</td>
<td>This course in biostatistical methods will emphasize the design of research projects, data gathering, analysis and the interpretation of results. Statistical concepts underlying practical aspects of biological research will be acquired while working through the process of scientific inquiry. Weekly computer laboratory sessions will focus on practical data visualization and statistical analysis using computer statistical packages. Simple parametric and nonparametric methods are reviewed, followed by more advanced topics that will include some or all of the following: two factor ANOVA and multiple regression, and introductions to discriminant analysis, cluster analysis, principle components analysis, logistic regression, and resampling methods. (Also listed as STAT*2250.) Departments of Mathematics and Statistics and Integrative Biology.</td>
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</tr>
<tr>
<td>BIOL*1020</td>
<td>Introduction to Biology F (3-2) [0.50]</td>
<td>This course will introduce important concepts concerning the organization of life on our planet, from cells to ecosystems. The dynamic and interactive nature of all living systems will be emphasized. This course will be valuable for students without 12U or OAC biology who are interested in environmental issues, medicine, advances in biotechnology and related topics.</td>
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<tr>
<td>BIOL*3110</td>
<td>Population Ecology F,W (3-1) [0.50]</td>
<td>An exploration of the structure and dynamics of animal and plant populations. The first part of the course will focus on demographic characteristics of populations and simple models of population growth and natural regulation. The second part of the course will concentrate on a variety of population processes, including predator-prey interactions, spatial dynamics, and disease-host interactions, and consider how these processes affect population dynamics. A quantitative approach emphasizing the use of mathematical models, graphical analysis, and statistics will provide the basic conceptual framework, which will be illustrated by selected case studies. Department of Integrative Biology.</td>
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</tr>
<tr>
<td>BIOL*2030</td>
<td>Ecology F,W (3-3) [0.50]</td>
<td>A course on the structure and dynamics of communities, dealing with both theoretical and applied aspects of community ecology. Emphasis is on the modern quantitative view of community ecology, and on the development of problem-solving skills. Department of Integrative Biology.</td>
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<tr>
<td>BIOL*3120</td>
<td>Community Ecology F,W (3-1) [0.50]</td>
<td>This course will introduce the biological basis for the management of wild, living resources, including freshwater and marine fish and wild life. Topics will include an overview of processes related to resource population abundance and dynamics, theory and practice of sustained-yield harvesting, and conservation and restoration of endangered species and/or ecosystems. Both theoretical and applied aspects of resource management will be emphasized. Department of Integrative Biology.</td>
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<tr>
<td>BIOL*3130</td>
<td>Conservation Biology W (3-0) [0.50]</td>
<td>A continuation of BIOL<em>3030. A lecture and laboratory course which continues with additional challenges of biology and two of the common challenges of life, acquisition and processing of nutrients and information flow. How these challenges are faced by animals, microbes and plants and the diversity of structures and processes that have evolved in response to them will be discussed. This is the second course in a two course biology series and should be taken immediately after successfully completing BIOL</em>1030. Materials introduced in BIOL<em>1030 will be built on and referred to in BIOL</em>1040.</td>
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<tr>
<td>BIOL*1120</td>
<td>Environment and Human Health W (3-0) [0.50]</td>
<td>This course will examine the interaction between environmental conditions and human physiology. There will be a strong emphasis on the effect of environmental factors on human health, aging, and the development of degenerative diseases. This course is designed for non-science students. B.Sc. students cannot take this course for credit. (Last offering Summer 2005)</td>
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<tr>
<td>BIOL*2060</td>
<td>Ecology F,W (3-1) [0.50]</td>
<td>This is a basic course that presents a discussion of the ecology of plants, animals, fungi and bacteria as individual organisms, interacting populations, communities and ecosystems. Lectures and discussion groups are used to demonstrate the tremendous difficulty of interpreting ecological data derived from field studies. The value of laboratory-based research in ecology will also be discussed. The course will be important for anyone who wishes to understand what we know and need to know about the way ecological systems work. Department of Integrative Biology. (Also offered through distance education format.)</td>
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<tr>
<td>BIOL*2210</td>
<td>Introductory Cell Biology S,F,W (3-0) [0.50]</td>
<td>The structure and function of eukaryotic cells with emphasis on multicellular organisms. Role of subcellular structures and organelles in cellular processes of bioenergetics, division, differentiation, motility, secretion, nutrition, and communication. (Also offered through distance education format.)</td>
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<tr>
<td>BIOL*3110</td>
<td>Mycology I W (3-3) [0.50]</td>
<td>This course provides an introduction to the fungal lifestyle and to classification and evolution of the major groups of fungi, including microfungi, yeasts and other eukaryotic microbes. The characteristics of fungal cell structure, genetics and metabolism will be presented, and fungal reproduction and sporulation processes discussed with reference to the life cycles of representative forms. The ecological and economic importance of fungi will be demonstrated by considering fungal ecology, symbiotic relationships, mycotoxins and pathogenic fungi and industrial applications of fungi and yeasts. Laboratory work will provide familiarity with procedures for culturing, examining and identifying fungi and yeasts. Department of Integrative Biology and Department of Molecular and Cell Biology.</td>
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<tr>
<td>BIOL*3010</td>
<td>Laboratory and Field Work in Ecology F (0-6) [0.50]</td>
<td>This course emphasizes field and laboratory work in ecology. Students will gain experience in experimental designs, sampling, analysis and interpretation of data collected to answer ecological questions. Local field sites will be used to run in-course experiments. Critical thinking about ecological issues relevant to society will be emphasized. Department of Integrative Biology.</td>
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<tr>
<td>BIOL*3100</td>
<td>Laboratory and Field Work in Ecology F (0-6) [0.50]</td>
<td>This course emphasizes field and laboratory work in ecology. Students will gain experience in experimental designs, sampling, analysis and interpretation of data collected to answer ecological questions. Local field sites will be used to run in-course experiments. Critical thinking about ecological issues relevant to society will be emphasized. Department of Integrative Biology.</td>
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</tr>
<tr>
<td>BIOL*2100</td>
<td>Introductory Cell Biology F,S,W (3-0) [0.50]</td>
<td>The structure and function of eukaryotic cells with emphasis on multicellular organisms. Role of subcellular structures and organelles in cellular processes of bioenergetics, division, differentiation, motility, secretion, nutrition, and communication. (Also offered through distance education format.)</td>
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<tr>
<td>BIOL*3050</td>
<td>Mycology I W (3-3) [0.50]</td>
<td>This course provides an introduction to the fungal lifestyle and to classification and evolution of the major groups of fungi, including microfungi, yeasts and other eukaryotic microbes. The characteristics of fungal cell structure, genetics and metabolism will be presented, and fungal reproduction and sporulation processes discussed with reference to the life cycles of representative forms. The ecological and economic importance of fungi will be demonstrated by considering fungal ecology, symbiotic relationships, mycotoxins and pathogenic fungi and industrial applications of fungi and yeasts. Laboratory work will provide familiarity with procedures for culturing, examining and identifying fungi and yeasts. Department of Integrative Biology and Department of Molecular and Cell Biology.</td>
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<tr>
<td>BIOL*1030</td>
<td>Introductory Cell Biology F,S,W (3-0) [0.50]</td>
<td>This course will introduce important concepts concerning the organization of life on our planet, from cells to ecosystems. The dynamic and interactive nature of all living systems will be emphasized. This course will be valuable for students without 12U or OAC biology who are interested in environmental issues, medicine, advances in biotechnology and related topics.</td>
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<tr>
<td>BIOL*1040</td>
<td>Biology II W (3-3) [0.50]</td>
<td>A continuation of BIOL<em>1030. A lecture and laboratory course which continues with additional challenges of biology and two of the common challenges of life, acquisition and processing of nutrients and information flow. How these challenges are faced by animals, microbes and plants and the diversity of structures and processes that have evolved in response to them will be discussed. This is the second course in a two course biology series and should be taken immediately after successfully completing BIOL</em>1030. Materials introduced in BIOL<em>1030 will be built on and referred to in BIOL</em>1040.</td>
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<tr>
<td>BIOL*1110</td>
<td>Environmental Health W (3-0) [0.50]</td>
<td>This course will examine the interaction between environmental conditions and human physiology. There will be a strong emphasis on the effect of environmental factors on human health, aging, and the development of degenerative diseases. This course is designed for non-science students. B.Sc. students cannot take this course for credit. (Last offering Summer 2005)</td>
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<tr>
<td>BIOL*1090</td>
<td>Introductory Cell Biology F,S,W (3-0) [0.50]</td>
<td>The structure and function of eukaryotic cells with emphasis on multicellular organisms. Role of subcellular structures and organelles in cellular processes of bioenergetics, division, differentiation, motility, secretion, nutrition, and communication. (Also offered through distance education format.)</td>
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<tr>
<td>BIOL*1000</td>
<td>Introductory Cell Biology F,S,W (3-0) [0.50]</td>
<td>The structure and function of eukaryotic cells with emphasis on multicellular organisms. Role of subcellular structures and organelles in cellular processes of bioenergetics, division, differentiation, motility, secretion, nutrition, and communication. (Also offered through distance education format.)</td>
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<tr>
<td>BIOL*1100</td>
<td>Introductory Cell Biology F,S,W (3-0) [0.50]</td>
<td>The structure and function of eukaryotic cells with emphasis on multicellular organisms. Role of subcellular structures and organelles in cellular processes of bioenergetics, division, differentiation, motility, secretion, nutrition, and communication. (Also offered through distance education format.)</td>
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<tr>
<td>BIOL*1050</td>
<td>Introductory Cell Biology F,S,W (3-0) [0.50]</td>
<td>The structure and function of eukaryotic cells with emphasis on multicellular organisms. Role of subcellular structures and organelles in cellular processes of bioenergetics, division, differentiation, motility, secretion, nutrition, and communication. (Also offered through distance education format.)</td>
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<tr>
<td>Course Code</td>
<td>Title</td>
<td>Course Information</td>
<td>Prerequisite(s)</td>
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<tr>
<td>BIOL*3450</td>
<td>Introduction to Aquatic Environments F,W</td>
<td>An introduction to the structure and components of aquatic ecosystems, how they are regulated by physical, chemical and biological factors, and the impact of humans on these environments and their biota. Laboratory periods will centre around computer-based exercises and simulation of aquatic systems. Department of Integrative Biology. (Also offered through distance education format.)</td>
<td>BIOL<em>1040, (CHEM</em>1050 or CHEM<em>1310), ZOO</em>2070 is strongly recommended</td>
</tr>
<tr>
<td>BIOL*4050</td>
<td>Mycology II</td>
<td>This advanced course expands on subjects introduced in BIOL*3050 and examines several selected topics concerning fungi and yeasts. Lecture presentations will emphasize the ecology of the fungi in natural environments, fungi pathogens of animals and plants, use of yeasts and fungi as model systems in biology, and other topics in contemporary mycology. Students will also prepare a review paper on a selected topic for class presentation. Department of Integrative Biology and Department of Molecular and Cellular Biology.</td>
<td>BIOL*3050</td>
</tr>
<tr>
<td>BIOL*4060</td>
<td>Restoration Ecology W</td>
<td>An overview of the process used to restore naturally occurring ecological systems that have been degraded by human activity. Students will review restoration projects in Canada and abroad, to become more familiar with experimental design, analysis and data management, as it is currently used in restoration ecology. Emphasis will be placed on the scientific method and the role of ecological theory. Political, social, and economic aspects of restoration will also be considered. Department of Integrative Biology.</td>
<td>1 of BIOL<em>2010, BIOL</em>2060, (BIOL<em>3110 and BIOL</em>3120)</td>
</tr>
<tr>
<td>BIOL*4100</td>
<td>Molecular Evolution and Phylogenetics F</td>
<td>This course is designed to provide students with an appreciation for the uses of molecular data in the study of evolutionary processes. An overview of the principles of molecular data analysis using a phylogenetic approach will be given. In addition, the importance of incorporating evolutionary history into biodiversity research and other applied topics will be emphasized. Laboratory sessions will be devoted to practical training in analytical tools using specialized computer software, and for student presentation of independent research projects. The course will involve practical training in molecular data analysis using a phylogenetic approach and discussion of current topics from the primary literature. Department of Integrative Biology.</td>
<td>MBG<em>3000 or ZOO</em>3300</td>
</tr>
<tr>
<td>BIOL*4110</td>
<td>Ecological Methods F</td>
<td>An advanced course designed to present theoretical and practical aspects of research methods in ecology. Emphasis will be placed on experimental design, sampling, population estimation, statistical inference, and community characteristics of producers and consumers. Students will participate in research projects of their own design, and will gain experience in preparing research proposals, research papers and posters, and making oral presentations. Department of Integrative Biology.</td>
<td>BIOL<em>3010, BIOL</em>3120, STAT*2040</td>
</tr>
<tr>
<td>BIOL*4120</td>
<td>Evolutionary Ecology W</td>
<td>An examination of common ecological circumstances faced by plants and animals and the morphological, behavioral and life history characteristics that have evolved in response. Particular emphasis will be placed on evolutionary processes and on adaptive aspects of thermoregulation, foraging strategies, spatial distribution, social and reproductive strategies. The course will emphasize both the theoretical basis and the empirical evidence for ecological adaptation. There is a 1-hour seminar each week for class discussion of selected lecture topics. Department of Integrative Biology.</td>
<td>BIOL<em>3110, MBG</em>2000, (MBG<em>3000 or ZOO</em>3300)</td>
</tr>
<tr>
<td>BIOL*4150</td>
<td>Wildlife Conservation and Management W</td>
<td>This course builds on previous courses in population and community ecology to evaluate the long-term dynamics of threatened populations in the context of human intervention. The course will also provide a &quot;hands-on&quot; introduction to computer modeling, with application to contemporary issues in population ecology and resource management. Lectures will be drawn from the following topics: growth and regulation of single populations, long-term persistence of ecological communities, harvesting, bio-economics, and habit modification. Department of Integrative Biology.</td>
<td>BIOL<em>3110 or BOT</em>2050, ZOO*4110</td>
</tr>
</tbody>
</table>
Biomedical Sciences

Department of Biomedical Sciences.

Some Biomedical Science courses are Priority Access Courses and enrollment may be restricted to particular programs or specializations. See department for more information.

Additional course listings may be found in the course descriptions for Toxicology and Veterinary Medicine.

BIOM*2000 Concepts of Physiology F,W (3-0) [0.50]

An introductory course covering the fundamental integrative aspects of human physiology. The basic physiology of the cardiovascular, respiratory, gastrointestinal, nervous, endocrine, renal and reproductive systems will be discussed. (Also offered in Distant Education Format.)

Restriction(s): ANSC*3080, BIOM*3100, HK*3940, ZOO*3200, ZOO*3210. Not available to B.Sc. Students in biological science specializations.

BIOM*3000 Mammalian Neuroanatomy W (2-3) [0.50]

The anatomical records of the mammalian nervous system. Includes 3 dimensional examination and dissection of the spinal cord, brain stem, cerebellum and cerebral hemispheres and study of serial sections. Emphasis is on the morphological basis of function. (Offered in even-numbered years.)

Prerequisite(s): 1 of BIOL*1040, PSYC*2410, equivalent

BIOM*3030 Biomedical Histology F (3-3) [0.75]

This histology course is designed for students with interests in Bio-Medical Sciences and Toxicology. Basic tissue types and major organ systems, will be examined focusing on structural/functional relationships. Human and common experimental mammals will be emphasized.

Prerequisite(s): BIOL*2210, BIOM*2580

Restriction(s): Priority Access Courses. Enrolment may be restricted to particular programs or specializations. See department for more information.

BIOM*3040 Medical Embryology W (2-3) [0.50]

The patterns and principles of fertilization and normal embryonic and fetal development of mammalian organ systems are covered with a focus on the medical implications. The teratology of structural and functional prenatal anomalies in development is mentioned.

Prerequisite(s): BIOL*1040 (an anatomy course is recommended)

BIOM*3090 Principles of Pharmacology and Toxicology W (3-0) [0.50]

This course will introduce students to the basic principles of pharmacology and toxicology. Topics to be covered include receptor mechanisms, kinetics and the actions of drugs and toxins at the cellular, organ and organism level.

Prerequisite(s): BIOC*2580, (BIOM*3100 or HK*3940)

Co-requisite(s): if BIOM*3100 taken, BIOM*3110

BIOM*3100 Mammalian Physiology I F (3-0) [0.50]

The first part of a two-semester course. A series of lectures concerning the normal functioning of the body treating in a detailed manner the physiology of the nervous, endocrine, and reproductive systems.

Prerequisite(s): BIOC*2580

BIOM*3110 Mammalian Physiology II W (3-0) [0.50]

This second lecture course in mammalian physiology deals with the cardiovascular and digestive systems and with homeostasis as reflected in respiratory and renal function.

Prerequisite(s): BIOM*3100 or instructor consent.

BIOM*3120 Laboratory Exercises in Mammalian Physiology W (0-3) [0.25]

A series of laboratory exercises in which the students measure cardiovascular, neuromuscular and respiratory parameters on themselves using a computer based acquisition system. These exercises complement the lectures in BIOM*3100, BIOM*3110, and HK*3940.

Prerequisite(s): BIOM*3100 or HK*3940

Co-requisite(s): BIOM*3110

BIOM*4010 Teratology F (2-3) [0.50]

The principles and practices of the study and analysis of birth defects in individuals and populations will be examined through lectures, lab projects and seminars. An on-going theme is the medical, social and moral/ethical impact of birth defects and testing for teratogenic safety.

Prerequisite(s): (1 of BIOM*3010, HK*3940, ZOO*2090), (BIOM*3040 or ZOO*2100), (HK*3940 or BIOM*3120)

BIOM*4020 Physiology of Digestion F (3-1) [0.50]

A comparative study of the function and control of the mammalian digestive system with an emphasis on domestic species and on the human. (Offered in even-numbered years.)

Prerequisite(s): 1 of BIOM*3110, HK*3940, ZOO*3210, or instructor consent.

BIOM*4030 Endocrine Physiology W (3-0) [0.50]

The course is designed to provide a senior level introduction to the endocrine discipline, focusing largely on mammals, with some examples taken from other vertebrate taxa. The course will give an introduction to the historical developments in the discipline, explore the actions of hormones and other chemical signalling pathways, examine processes of hormone synthesis and secretion. The focus of the course will be the integrative nature of hormone actions in the regulations of various physiological processes in animal systems, such as metabolic control, growth, and reproduction. The course will also explore aspects of “non-classical” endocrinology, endocrine dysfunctional states and emerging environmental concerns related to endocrine dysfunction.

Prerequisite(s): BIOC*2580, (1 of BIOM*3110, HK*3940, ZOO*3210, ZOO*3220)

BIOM*4050 Biomedical Aspects of Aging F (3-0) [0.50]

Aging is accompanied by alterations in the physiological and biochemical functioning of body organ systems. The relationship between aging and the cardiovascular, respiratory, digestion/nutrition and reproductive systems will be discussed as will homeostatic functions associated with bone metabolism and fluid balance.

Prerequisite(s): BIOM*3110 or HK*3940

BIOM*4090 Pharmacology F (3-0) [0.50]

A lecture and seminar course which will emphasize the actions, uses and toxicities of drugs on various body systems in humans and animals.

Prerequisite(s): BIOM*3090

BIOM*4110 Mammalian Reproductive Biology I F (2-2) [0.50]

This multidisciplinary course provides an introduction to various aspects of mammalian reproduction of medical and veterinary significance. The course will cover the normal physiology and gross and micro anatomy of the female and male reproductive systems including the brain. Placentation will also be addressed. The impact of the normal biology on social issues will be discussed.

Prerequisite(s): (1 of BIOM*3010, HK*3940, ZOO*2090), (BIOM*3030 or ZOO*3000), (1 of BIOM*3110, HK*3940, ZOO*3210)

Restriction(s): BIOM*4041/2

BIOM*4120 Mammalian Reproductive Biology II W (2-2) [0.50]

This is a continuation of BIOM*4110 which examines medically significant aspects of mammalian reproduction in detail. The emphasis will be on pregnancy, parturition and lactation and applications of reproductive technologies and the ethical problems they pose.

Prerequisite(s): BIOM*4110

Restriction(s): BIOM*4041/2

BIOM*4500 Research in Biomedical Sciences I S,F,W (0-6) [0.50]

Independent theoretical and/or practical research of a current topic in any of the biomedical sciences (such as anatomy, physiology, pharmacology, toxicology, genetics, biochemistry). Approval of the departmental course coordinator is required before course selection.

Prerequisite(s): 14.00 credits

Restriction(s): Instructor consent required. Enrolment restricted to Bio-Medical Science majors or Neuroscience minors.

BIOM*4510 Research in Biomedical Sciences II S,F,W (0-12) [1.00]

Independent research of a current topic in any of the biomedical sciences (such as anatomy, physiology, pharmacology, toxicology, genetics, biochemistry). Approval of the departmental course coordinator is required.

Prerequisite(s): 14.00 credits

Restriction(s): BIOM*4521/2. Instructor consent required. Enrolment restricted to Bio-Medical Science majors or Neuroscience minors.

BIOM*4521 Research in Biomedical Sciences II S,F,W (0-6) [0.50]

First part of the two-semester course BIOM*4521/2. Refer to BIOM*4521/2 for course description.

Prerequisite(s): 14.00 credits

Restriction(s): BIOM*4510. Instructor consent required. Enrolment restricted to Bio-Medical Science majors or Neuroscience minors.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
<th>Prerequisite(s)</th>
<th>Restriction(s)</th>
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</thead>
<tbody>
<tr>
<td>BIOM*4521</td>
<td>Research in Biomedical Sciences II S-F,F-W,W-S</td>
<td>Independent research of a current topic in any of the biomedical sciences (such as anatomy, physiology, pharmacology, toxicology, genetics, biochemistry). Approval of the departmental course coordinator is required. This is a two-semester course offered over consecutive semesters. When you select it you must select BIOM<em>4521 in the first semester and BIOM</em>4522 in the second semester. A grade will not be assigned in BIOM<em>4521 until BIOM</em>4522 has been completed.</td>
<td>14.00 credits</td>
<td>BIOM*4510</td>
</tr>
<tr>
<td>BIOM*4522</td>
<td>Research in Biomedical Sciences II F,W,S (0-6)</td>
<td>Second part of the two-semester course BIOM<em>4521/2. Refer to BIOM</em>4521/2 for course description.</td>
<td>BIOM*4521</td>
<td></td>
</tr>
</tbody>
</table>
Botany

Department of Integrative Biology.
Department of Molecular and Cellular Biology.

Additional course listings may be found in the course descriptions for Biology and Plant Biology.

Senior students are encouraged to inquire about graduate courses, particularly in the areas of Vascular Plant Systematics and Morphology, that can be taken for credit.

**BOT*1200 Plants and Human Use W (3-0) [0.50]**
This course will examine past and present interactions between humans and plants with emphasis on major changes in civilization and cultures as a result of these interactions. The approach will be to consider several case studies of how unique structural and chemical properties of various plant organs have played a role in their use by humans. Not an acceptable course for students in B.SC. Biological Sciences Programs. (Also offered through distance education format.)

**Restriction(s):** BIOL*1030, BIOL*1040

**BOT*2000 Plants, Biology and People F (3-1) [0.50]**
The course deals with the biology of plant species of historical and cultural importance. It will focus on plants used as a source of drugs, herbal medicines, industrial raw materials, food products, perfumes and dyes. Examples of plant products that will be looked at include cocaine, chocolate, tea, opium, hemp and ginseng. The relevant morphology, physiology, distribution and ethnobotany of these plant species will be discussed.

**Prerequisite(s):** BIOL*1040

**Restriction(s):** BOT*1200

**BOT*2030 Plants in the Ontario Landscape F (3-3) [0.50]**
In this course you will learn to identify plants and their habitats in the Ontario landscape. In addition, you will apply methods typically used for field studies in plant biology. Through a series of field exercises, this course will foster an appreciation of local natural areas and provide a foundation for further studies and careers in ecology and environmental assessment.

**Prerequisite(s):** BIOL*1040

**BOT*2050 Plant Ecology F (3-3) [0.50]**
This course supplies the tools needed to assess plant populations and communities quantitatively. Field work is carried out at semi-natural sites on campus to provide practical experience in data collection. These data are analyzed to address conceptual and practical issues raised in lectures. This course is especially valuable for students interested in plant or wildlife biology and in environmental management.

**Prerequisite(s):** BIOL*1040 or BOT*1150

**BOT*2100 Life Strategies of Plants F,W (3-2) [0.50]**
This course introduces the structures and processes used by plants in the greening of our planet, and how and why plants are basic to the functioning of the biosphere. This course includes hands-on experience in examining the cells, tissues and architectures of plants as well as selected processes of plant function.

**Prerequisite(s):** BIOL*1040

**Restriction(s):** BOT*1150, BOT*2300, BOT*2400

**BOT*3310 Plant Physiology F,W (3-3) [0.50]**
The unique function and structure of plants is explored in relation to their growth, survival and adaptation to the environment. Photosynthesis, plant respiration, water and nutrient relations, and the control of growth and development by environmental and hormonal signals are explained through lectures and "hands-on" laboratories.

**Prerequisite(s):** BOT*2100

**Restriction(s):** BOT*2300

**BOT*3410 Plant Anatomy F (3-3) [0.50]**
The intricate internal structure of plants is explored in this course. The development, pattern and significance of cells, tissues and organs will be emphasized as well as the histological and microscopical methods used to study them. The lab emphasizes interpretation of plant structure as it relates to function.

**Prerequisite(s):** BIOL*1040 or BOT*1150

**Restriction(s):** BOT*2400

**BOT*3710 Classification and Morphology of Seed Plants W (3-3) [0.50]**
The interpretation of floral and vegetative morphology for purposes of classification and identification of flowering plants and conifers; flower and cone structure as related to function; principles of plant classification, fundamentals of nomenclature and economic importance of selected plant families are covered. Labs stress interpretation of plant form and plant identification at the ranks of family to species by use of a key to the flora of North-Eastern North America.

**Prerequisite(s):** BOT*2100

**BOT*4380 Metabolism in the Whole Life of Plants W (3-0) [0.50]**
This course follows the developmental changes that take place in plants, and explores the molecular, biochemical and physiological mechanisms that are responsible for development. Emphasis will be placed on the importance of modern experimental methods and critical evaluation of data.

**Prerequisite(s):** BIOL*1040, BIOC*2580

**BOT*4820 Research Opportunities in Botany I S,F,W (1-5) [0.75]**
These courses, normally open to students who are in semesters 7 and 8, are specifically designed to encourage senior undergraduates to conduct research in an area of Plant Biology. The courses may be taken individually or in sequence. The two-course sequence is particularly valuable for students considering graduate work. When the two-course sequence is selected, BOT*4820 will put emphasis on reviewing the primary scientific literature, formulating hypotheses and the design of experiments. This course must be completed before registration in BOT*4830. In all instances, supervisory arrangements must be made at least one semester before starting the course; registration with the course coordinator is contingent on the availability and agreement of a faculty supervisor.

**Restriction(s):** Instructor consent required.

**BOT*4830 Research Opportunities in Botany II S,F,W (1-5) [0.75]**
See BOT*4820.

**Restriction(s):** Instructor consent required.
Chemistry
Department of Chemistry and Biochemistry.
Credit may be obtained in only 1 of CHEM*1040, CHEM*1100; 1 of CHEM*2400, CHEM*2480; 1 of CHEM*2820, CHEM*2880.
*A 1 hour tutorial is scheduled in the third hour of the time slot. Laboratory period extends 3 hours.

Laboratory Deposit: During the first week of classes, a refundable laboratory deposit of $10.00 will be collected from each student who registers in any of the courses in Chemistry, designated below by the symbol "*". Breakages will be charged against this deposit.

CHEM*1040 General Chemistry I F,W (3-3) [0.50]
A course which introduces concepts of chemistry, the central link between the physical and biological sciences. Principles discussed include chemical bonding, simple reactions and stoichiometry, chemical equilibria and solution equilibria (acids, bases, and buffers), and introductory organic chemistry.
Prerequisite(s): 1 of 4U Chemistry, OAC Chemistry (or equivalent), CHEM*1060
Restriction(s): CHEM*1100, CHEM*1300

CHEM*1050 General Chemistry II S,F,W (3-3) [0.50]
An introductory study of the fundamental principles governing chemical transformations; thermodynamics (energy, enthalpy, and entropy); kinetics (the study of rates of reactions); and redox/electrochemistry.
Prerequisite(s): CHEM*1040 or IPS*1100
Restriction(s): CHEM*1300, CHEM*1310

CHEM*1060 Introductory Chemistry F (3-0) [0.50]
A course stressing fundamental principles of chemistry, designed for students without 4U or OAC Chemistry or equivalent. Topics include: atomic theory, the periodic table, stoichiometry, properties of gases and liquids, acid-base concepts and chemical equilibrium. This course is intended only for students who require the equivalent of 4U or OAC Chemistry in order to proceed to CHEM*1040 or CHEM*1300.

CHEM*1100 Chemistry Today F (3-0) [0.50]
A chemistry course for non-scientists. This course will outline the involvement of chemistry in our daily lives and will provide an appreciation of chemistry from atoms to important complex molecules. Topics will include energy sources, air and water pollution, natural and synthetic polymers, household chemicals, foods, drugs and biochemicals.
Restriction(s): CHEM*1040, CHEM*1300

CHEM*1300 Introductory Environmental Chemistry F (3-3) [0.50]
This course presents the fundamentals of chemistry in the context of the environment in the modern industrial world. The core content includes general chemical principles such as stoichiometry, equilibrium and reaction energetics, illustrated with cases and examples that relate these principles to contemporary environmental problems.
Prerequisite(s): 1 of 4U Chemistry, OAC Chemistry, CHEM*1060
Restriction(s): CHEM*1040, CHEM*1100

CHEM*1310 Introductory Environmental Chemistry II W (3-3) [0.50]
This course extends the foundation of general and physical chemistry for environmental sciences to provide a basis for the understanding of the dynamic behaviour of chemical systems in the external world. The core content includes principles of thermodynamics, photochemistry, electrochemistry and kinetics, illustrated with cases and examples that relate these principles to contemporary environmental problems.
Prerequisite(s): CHEM*1300
Restriction(s): CHEM*1050

CHEM*2060 Structure and Bonding F (3-2) [0.50]
Applications of symmetry, simple crystal structures and principles of bonding. Molecular orbital theory is used to explain the fundamental relationship between electronic and molecular structure. This course provides the elementary quantum background for an understanding of the electronic structures of atoms and molecules.
Prerequisite(s): CHEM*1050, MATH*1210, PHYS*1010

CHEM*2070 Structure and Spectroscopy S,W (3-2) [0.50]
An introduction to spectroscopy and its relationship to molecular structure and dynamics. Rotational, vibrational, electronic and magnetic resonance spectroscopies will be studied. Concepts introduced in CHEM*2060 will be applied to chemical and biochemical problems through spectroscopic techniques. Central to this course is the use of spectroscopy for the determination of molecular structures and the investigation of molecular motions.
Prerequisite(s): CHEM*2060

CHEM*2300 Chemical Reactivity F (3-3) [0.50]
A general coverage of the reactivity of the elements and some of their compounds, with an emphasis on the compounds of carbon.
Prerequisite(s): CHEM*1050 or CHEM*1310
Restriction(s): CHEM*2700

CHEM*2480 Analytical Chemistry I S,F,W (2-6) [0.75]
Quantitative analysis of important inorganic species in solution by volumetric, gravimetric and spectrophotometric techniques. Spreadsheet applications to solution equilibria and data analysis. This course is intended to build the foundations of good analytical laboratory practice.
Prerequisite(s): CHEM*1050 or IPS*1200
Restriction(s): CHEM*2480

CHEM*2480 Analytical Chemistry I S,F,W (2-3) [0.50]
Same as CHEM*2400 with a 3 hour laboratory component.
Prerequisite(s): 1 of CHEM*1050, CHEM*1310, IPS*1200
Restriction(s): CHEM*2480

CHEM*2700 Organic Chemistry I S,W (3-3) [0.50]
An introduction to organic chemistry, stereochemistry, discussion of the major mechanisms and related reactions: nucleophilic substitution and elimination, electrophilic addition, free radical reactions, electrophenic aromatic substitution, nucleophilic addition and nucleophiolic acyl substitution.
Prerequisite(s): CHEM*1050
Restriction(s): CHEM*2300

CHEM*2820 Thermodynamics and Kinetics F (3-3) [0.50]
The laws and applications of chemical thermodynamics and chemical kinetics.
Prerequisite(s): CHEM*1050, (MATH*1200 or MATH*2080)
Restriction(s): CHEM*2880

CHEM*2880 Physical Chemistry F (3-2) [0.50]
A survey course for students who are not specializing in chemistry, biochemistry or chemical physics. Topics include basic thermodynamics, chemical equilibrium, macromolecular binding, chemical kinetics, enzyme kinetics, transport processes, colligative properties and spectroscopy. This course describes macroscopic observable properties of matter in terms of molecular concepts.
Prerequisite(s): CHEM*1050, (1 of MATH*1000, MATH*1080, MATH*1200)
Restriction(s): CHEM*2820

CHEM*3360 Environmental Chemistry and Toxicology S,W (3-0) [0.50]
The chemistry of the natural environment; the influence of pollutants upon the environment, including methods of introduction of pollutants to, and removal of pollutants from the environment. (Also listed as TOX*3360.)
Prerequisite(s): CHEM*1050
Equate(s): TOX*3360
Restriction(s): CHEM*1310

CHEM*3430 Analytical Chemistry II: Instrumental Analysis S, W (3-3) [0.50]
Methods for the separation, identification and quantification of substances in the solid, liquid and vapour states. Emphasis will be placed on modern instrumental methods and trace analysis.
Prerequisite(s): (CHEM*2400 or CHEM*2480), CHEM*2070 (may be taken concurrently)
Restriction(s): CHEM*3450, CHEM*3460, TOX*3300

CHEM*3440 Analytical Chemistry III: Analytical Instrumentation F (3-3) [0.50]
Analytical Instrumentation, data acquisition, processing and applications in Chemistry and Biochemistry.
Prerequisite(s): CHEM*3430
Restriction(s): CHEM*3450, CHEM*3460

CHEM*3640 Chemistry of the Elements I F (3-3) [0.50]
A comprehensive introduction to concepts used by inorganic chemists to describe the structure, properties, and reactivity of compounds of the main group elements. The most important concepts covered are: Electronic Structure of Atoms, Symmetry, MO theory, Acids and Basis, Structure of Solids, Trends in the Periodic System.
Prerequisite(s): CHEM*2070

CHEM*3650 Chemistry of the Elements II W (3-3) [0.50]
The chemistry and structure of transition metal compounds; electronic spectral and structural properties of transition metal complexes; mechanisms of their substitution and redox reactions. Introduction to organometallic chemistry.
Prerequisite(s): CHEM*3640
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>CHEM*3750</td>
<td>Organic Chemistry II</td>
<td>3-3 [0.50]</td>
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<td>CHEM*3760</td>
<td>Organic Chemistry III</td>
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<td>CHEM*3770</td>
<td>Quantum Chemistry</td>
<td>3-1 [0.50]</td>
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<td>CHEM*3780</td>
<td>Chemistry and Industry</td>
<td>3-0 [0.50]</td>
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<tr>
<td>CHEM*3800</td>
<td>Advanced Topics in Analytical Chemistry</td>
<td>3-0 [0.50]</td>
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<tr>
<td>CHEM*3810</td>
<td>Advanced Topics in Inorganic Chemistry</td>
<td>3-0 [0.50]</td>
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<td>CHEM*3820</td>
<td>Bioinorganic Chemistry</td>
<td>3-0 [0.50]</td>
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<tr>
<td>CHEM*3830</td>
<td>Organic Reactivity</td>
<td>3-0 [0.50]</td>
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<tr>
<td>CHEM*3840</td>
<td>Synthetic Organic Chemistry</td>
<td>3-0 [0.50]</td>
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<tr>
<td>CHEM*3870</td>
<td>Topics in Bio-Organic Chemistry</td>
<td>3-0 [0.50]</td>
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<tr>
<td>CHEM*4000</td>
<td>Chemistry and Biochemistry Research Project I</td>
<td>S,F,W (0-9) [0.75]</td>
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<tr>
<td>CHEM*4010</td>
<td>Chemistry and Biochemistry Research Project II</td>
<td>S,F,W (0-9) [0.75]</td>
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**CHEM*3750 Organic Chemistry II S,F (3-3) [0.50]**

A continuation of the coverage of fundamental aspects of organic chemistry using an assimilation of carbonyl chemistry, unsaturated systems and carbon-carbon bond forming processes to acquaint students with methods of organic synthesis. Topics also include an introduction to spectroscopic methods for the identification of organic compounds.

**Prerequisite(s):** CHEM*2700

**CHEM*3760 Organic Chemistry III W (3-3) [0.50]**

An in-depth treatment of various aspects of organic chemistry. This will include such topics as the chemistry of heterocycles, bio-organic chemistry, polar rearrangements, organic photochemistry and a detailed discussion of organic spectroscopy.

**Prerequisite(s):** CHEM*2070, CHEM*3750

**CHEM*3770 Quantum Chemistry F (3-1) [0.50]**

Elementary quantum mechanics for the understanding of the electronic structure of atoms and molecules.

**Prerequisite(s):** CHEM*2070, MATH*2170

**CHEM*3780 Chemistry and Industry W (3-0) [0.50]**

This course examines industrial processes for the production of organic and inorganic chemicals. The environmental impact and the challenges of a large-scale operation will be considered alongside the actual chemical processes involved.

**Prerequisite(s):** (CHEM*2300 or CHEM*2700), (CHEM*3430 or TOX*3300), (MATH*1210 or MATH*2080)

**CHEM*3800 Advanced Topics in Analytical Chemistry W (3-0) [0.50]**

Recent developments in instrumental methods of chemical analysis. A typical selection will include topics from the areas of surface analysis and the applications of lasers in chemical analysis.

**Prerequisite(s):** CHEM*3430 or CHEM*3450

**CHEM*3810 Advanced Topics in Inorganic Chemistry F (3-0) [0.50]**

A contemporary treatment of subjects of current interest in modern inorganic chemistry. Possible topics include solid state chemistry and organometallic chemistry.

**Prerequisite(s):** CHEM*3650

**CHEM*3820 Bioinorganic Chemistry W (3-0) [0.50]**

The role and importance of transition metal systems in biological processes. (Offered in odd-numbered years.)

**Prerequisite(s):** BIOC*2580, CHEM*3650 (may be taken concurrently)

**CHEM*3830 Organic Reactivity W (3-0) [0.50]**

Introduction to physical organic chemistry, including discussion of reactive intermediates, substituent effects, medium effects, the mechanisms of organic reactions and the theoretical description of the bonding in organic molecules. (Offered in even-numbered years.)

**Prerequisite(s):** CHEM*3760 (may be taken concurrently)

**CHEM*3840 Synthetic Organic Chemistry F (3-0) [0.50]**

Introduction to synthetic organic chemistry, including discussion of retrosynthetic analysis, natural products and organic reactions. The integration of these topics for the rational design of synthetic schemes will also be discussed.

**Prerequisite(s):** CHEM*3760

**CHEM*3870 Topics in Bio-Organic Chemistry W (3-0) [0.50]**

This course covers the principles, methods and techniques of current bio-organic chemistry with emphasis on modern synthetic and analysis methods applied to biological molecules, a molecular based approach to structure recognition, and an introduction to molecular modelling and drug design.

**Prerequisite(s):** BIOC*2580, CHEM*3750

**CHEM*4000 Chemistry and Biochemistry Research Project I S,F,W (0-9) [0.75]**

Research project and seminar in chemistry and biochemistry. This course is designed to provide senior undergraduates with an opportunity to conduct research in an area of chemistry or biochemistry. Students must make arrangements with both a faculty supervisor and the course coordinator prior to registration. Students cannot choose a supervisor with whom they already have research experience in another capacity (e.g. a summer research position). Students should note that most projects are of two semesters' duration, and should plan their studies on the expectation that they will also register in CHEM*4910 in a subsequent semester.

**Prerequisite(s):** 5.00 credits in chemistry or biochemistry including 1.50 credits from BIOC*3570, BIOC*4540, CHEM*3430 or CHEM*3450, CHEM*3640, CHEM*3650, CHEM*3760, CHEM*3870

**Restriction(s):** Instructor consent required.

**CHEM*4010 Chemistry and Biochemistry Research Project II S,F,W (0-9) [0.75]**

Research project and seminar in chemistry or biochemistry. Students must make arrangements with both a faculty supervisor and the course coordinator prior to registration.

**Prerequisite(s):** CHEM*4900

**Restriction(s):** Instructor consent required.
CLAS*1000 Introduction to Classical Culture F,W (3-0) [0.50]
A wide-ranging look at essential features of Greek and of Roman culture and society. Considerable emphasis will be given to the classical views of the human condition.

CLAS*2000 Classical Mythology W (3-0) [0.50]
An examination of the nature and function of myth in Classical Antiquity. The course shows how the narrative and symbolic structure of myths orders individual and communal experience. The myths that have influenced Western civilization receive special emphasis.

CLAS*2150 Western Art: Greece F (3-0) [0.50]
A survey of Ancient Greek Art and Archaeology, with stress on form and function plus stylistic trends and aesthetic values. The course will illuminate the cultural, social, and political life in Ancient Greece. (Also listed as ARTH*2150).

CLAS*2350 The Classical Tradition W (3-0) [0.50]
This course examines the transmission of Graeco-Roman culture in circumstances radically different from those in which it originated. It highlights the aspects of classical culture most influential in forming the Western tradition. (Offered in odd-numbered years.)
Prerequisite(s): CLAS*1000 or CLAS*2000

CLAS*2360 The Classical Tradition (in Latin) W (6-0) [1.00]
This course augments CLAS*3010 for Classical Languages students through the reading and study in Latin of selected primary sources, notably Sallust, Cicero, Caesar, and Suetonius. (Offered in even-numbered years.)
Prerequisite(s): LAT*2000
Restriction(s): Registration in Classical Languages.

CLAS*3000 The Rise and Fall of Athens F (3-0) [0.50]
Greek history in the 5th century; the development of Athenian democracy; the Peloponnesian War and the decline of Athenian dominance. Special attention is paid to the literature and thought of the period. (Offered in even-numbered years.)
Prerequisite(s): 1 of CLAS*1000, CLAS*2000, HIST*2850

CLAS*3010 The Roman Revolution W (3-0) [0.50]
An examination of the collapse of the Roman Republic and the development of the Imperial government under Augustus. The paradox of the external power and inner instability of Rome. (Offered in even-numbered years.)
Prerequisite(s): 1 of CLAS*1000, CLAS*2000, HIST*2850

CLAS*3020 History of the Hellenistic World F (3-0) [0.50]
The rise and fall of the Hellenistic states from the death of Alexander the Great until the Roman conquest, with political emphasis on the development of the monarchies and cultural emphasis on the Hellenization of the East. (Offered in odd-numbered years.)
Prerequisite(s): 1 of CLAS*1000, CLAS*2000, HIST*2850

CLAS*3030 Epic Heroes and Poems W (3-0) [0.50]
The nature and significance of the epic hero. Epic as code and as critique of tradition, Oral poetry, and critical problems raised by it. The central texts are The Iliad, The Odyssey, and Virgil's Aeneid; other poems are also studied. (Offered in odd-numbered years.)
Prerequisite(s): CLAS*1000 or CLAS*2000

CLAS*3040 Greek Tragedy and Comedy W (3-0) [0.50]
The nature of tragedy, and the existential and moral questions raised by the plays of Aischylos, Sophokles, and Euripides. Comedy, fantasy, and society in Aristophanes. (Offered in even-numbered years.)
Prerequisite(s): CLAS*1000 or CLAS*2000

CLAS*3050 The Rise and Fall of Athens (in Greek) F (6-0) [1.00]
This course augments CLAS*3000 for Classical Languages students through the reading and study in Greek of selected primary sources, such as Herodotus, Thucydides, and Plutarch. (Offered in even-numbered years.)
Prerequisite(s): GREK*2020
Restriction(s): Registration in Classical Languages.

CLAS*3060 The Roman Revolution (in Latin) W (6-0) [1.00]
This course augments CLAS*3010 for Classical Languages students through the reading and study in Latin of selected primary sources, notably Sallust, Cicero, Caesar, and Suetonius. (Offered in even-numbered years.)
Prerequisite(s): LAT*2000
Restriction(s): Registration in Classical Languages.

CLAS*3070 History of the Hellenistic World (in Greek) F (6-0) [1.00]
This course augments CLAS*3020 for Classical Languages students through the reading and study in Greek of selected Greek sources pertaining to the history of the Hellenistic World, primarily Polybius and Plutarch. (Offered in odd-numbered years.)
Prerequisite(s): GREK*2020
Restriction(s): Registration in Classical Languages.

CLAS*3080 Epic Heroes and Poems (in Greek) W (6-0) [1.00]
This course augments CLAS*3030 for Classical Languages students through the reading and study in Greek of selected books from the Iliad and/or Odyssey. The course will include close study of the epic dialectic and features of its formulaic language. (Offered in odd-numbered years.)
Prerequisite(s): GREK*2020
Restriction(s): Registration in Classical Languages.

CLAS*3090 Greek Tragedy and Comedy (in Greek) W (6-0) [1.00]
This course augments CLAS*3040 for Classical Languages students through the reading and study in Greek of an extant play. Offered in even-numbered years.)
Prerequisite(s): GREK*2020
Restriction(s): Registration in Classical Languages.

CLAS*3100 Religion in Greece and Rome F (3-0) [0.50]
An examination of the varieties of religious experience and of religious activity in Greece and Rome, before the establishment of Christianity. Particular attention is paid both to the relations of religion to state and to the relations of the individual to gods. (Offered in even-numbered years.)
Prerequisite(s): CLAS*1000 or CLAS*2000

CLAS*3110 Religion in Greece and Rome F (6-0) [1.00]
This course augments CLAS*3100 for Classical Languages students through the reading and study of Latin primary sources. (Offered in even-numbered years.)
Prerequisite(s): LAT*2000
Restriction(s): Registration in Classical Languages.

CLAS*3120 Religion in Greece and Rome (in Latin) F (6-0) [1.00]
This course augments CLAS*3110 for Classical Languages students through the reading and study of Latin primary sources. (Offered in even-numbered years.)
Prerequisite(s): LAT*2000
Restriction(s): Registration in Classical Languages.

CLAS*3130 Space: Roman Art and Urbanism W (3-0) [0.50]
Introduction to Roman art and urbanism from the Early Republic to the end of the imperial period. The course will survey the developments of Roman art with an emphasis on architecture, sculpture and painting. It will illuminate the development of the urban space in the context of cultural, social and political life. (Also listed as ARTH*3130). (Offered in even-numbered years.)
Equate(s): ARTH*3130

CLAS*3200 Sport in Antiquity F (3-0) [0.50]
The history of sport in Greece and Rome from Homer to the Caesars, with emphasis on its relationship to religion, education, literature, and community life. (Offered in odd-numbered years.)
Prerequisite(s): CLAS*1000, CLAS*2000

CLAS*3750 Greek Myth in the Western Tradition F (3-0) [0.50]
This course will study the functions of Greek myths in the non-Greek cultures which adopted them and so transmitted them to the later general culture of the West. The period to be explored extends from Augustan Rome through the European Middle Ages to the Early Renaissance in Italy. (Offered in even-numbered years.)
Prerequisite(s): CLAS*2000

CLAS*4000 Novel and Romance in Antiquity F (3-0) [0.50]
The historical and formal roots of fiction in the classical prose romances. Special attention is paid to the influence of myth, religion, historiography and ethical biography. Among texts studied are Daphnis and Chloe, Satyricon, and Aithiopika. (Offered in odd-numbered years.)
Prerequisite(s): CLAS*3030 or CLAS*3040

CLAS*4010 Novel and Romance in Antiquity (in Latin) F (6-0) [1.00]
This course augments CLAS*4000 for Classical Languages students through the reading and study in Latin of an extant novel. (Offered in odd-numbered years.)
Prerequisite(s): LAT*2000
Restriction(s): Registration in Classical Languages.

CLAS*4150 Research Paper in Classics F,W (3-0) [0.50]
This course is intended to complement courses in specified studies in classics. It engages the student in research and in critical writing, and permits the examination, in depth, of a topic of importance to the discipline and of interest to the student.
Prerequisite(s): 1.50 credits in Classical Studies courses at the 3000 level

Restriction(s): Registration in Classical Languages.
CLAS*4400 Seminar in Classics W (3-0) [0.50]
A seminar course complementing courses of specific study in classics. It seeks to define the nature of the discipline, its values and its procedures. Attention will be paid to recent methodological and ideological trends in the discipline.

Prerequisite(s): 1.50 credits in Classical Studies at the 3000 level
Computing and Information Science

Department of Computing and Information Science.

Note: Credit may be obtained for 1 of CIS*1000 or CIS*1200. Students with credit for COST*2020 may not register in CIS*1000 or CIS*1200 Students who major or minor in Computing and Information Science may not receive credit for the following courses unless taken to satisfy the requirements of another program: COST*2020, MATH*1050.

CIS*1000 Introduction to Computer Applications S,F,W (3-2) [0.50]
A survey of computer systems and software. An introduction to computer programming and data organization. An emphasis on using application packages for personal and business use. The social impact of computing. Not recommended for students with previous computer science background. Cannot be taken for credit by students taking a major or minor in Computing and Information Science.

Restrictions(s): CIS*1200, COST*2020, Not available to students registered in B.A.Sc. Program (Applied Human Nutrition major)

CIS*1200 Introduction to Computing F,W (3-2) [0.50]
An introduction to computer hardware and software, data organization, problem-solving and programming. Exposure to application packages for personal and business use. For students who wish a balance between programming and the use of software packages. Cannot be taken for credit by students taking a major or minor in Computing and Information Science.

Restriction(s): COST*2020, CIS*1000

CIS*1500 Introduction to Programming F,W (3-2) [0.50]
Introductory problem-solving, programming and data organization techniques required for applications using a general purpose programming language. Topics include control structures, data representation and manipulation, program logic, development and testing. For students who require a good understanding of programming or are planning on taking additional specialist Computing and Information Science courses. This is the entry point to all CIS programs. (Also offered in Distance Education format.)

Restriction(s): CIS*1650

CIS*1900 Discrete Structures in Computer Science W (3-2) [0.50]
Provides a foundation in finite mathematics which is required for further computer science courses. Abstract representation of structures and algorithms. Topics include graph theory, logic, and set theory. (Also offered in Distance Education format.)

Restriction(s): CIS*1910, CIS*2910

CIS*1910 Discrete Structures in Computing I W (3-2) [0.50]
An introduction to discrete structures and formal methodologies used in computer science, including Boolean, propositional and predicate logic, finite set theory, functions, relations, and proof techniques.

Restriction(s): CIS*1900

CIS*2030 Structure and Application of Microcomputers F,W (3-3) [0.50]
Components of a computer system, including memories, CPU, buses, and input/output subsystems and interface hardware. Instruction sets, addressing modes, assembly/machine language programming. Development of algorithms for data acquisition, display, and process control. (Will be moved to S.F in Fall 2005)

Prerequisite(s): (CIS*1900 or CIS*1910), (CIS*2500 or CIS*2650)

CIS*2100 Scientific Computing and Applications Development S,F (3-2) [0.50]
This course is intended to introduce the student to techniques in modern applications development using current technologies and practices. The emphasis of the first part of the course ranges from building and maintaining WEB sites to search engines and multimedia presentations. The second part of the course is concerned with building and maintaining simple databases as needed for the management of scientific data. This is done in conjunction with packages for mathematical and statistical analysis, and presentation techniques. Cannot be taken for credit by students taking a major or minor in Computing and Information Science.

Prerequisite(s): 1 of CIS*1000, CIS*1200, CIS*1500

CIS*2430 Object Oriented Programming S,F (3-2) [0.50]
Introduces the Object Oriented (OO) approach to programming and algorithm design. Topics will include the creation and use of objects from class libraries, user defined objects, inheritance, modularity, generic code, components, collections and containers, and an introduction to OO design methodologies. (First offering Summer 2005)

Prerequisite(s): CIS*2500

CIS*2460 Modelling of Computer Systems F (3-2) [0.50]
Discrete simulation based on event queues. Random number generation. How to generate input data, measure and evaluate results using standard statistical tests. Model calibration and validation. Algebraic, probabilistic and simple queueing models of software and hardware operation. (First offering Fall 2006).

Prerequisite(s): CIS*2500, CIS*2910, (STAT*2040 or STAT*2100)

CIS*2500 Intermediate Programming W (3-2) [0.50]
How to interpret a program specification and implement it as reliable code. Experience with pointers, complex data types, and important algorithms. Intermediate tools and techniques in problem-solving, programming and program testing.

Prerequisite(s): CIS*1500
Equate(s): CIS*2650

CIS*2520 Data Structures S,F (3-2) [0.50]
Basic data structures: stacks, queues, lists, trees, hashing, search trees, and graphs. Their representation, uses, and algorithms for their traversal and manipulation. The emphasis is on using these structures in implementations and assessing the relative effectiveness of alternative implementations. (First offering Summer 2005)

Prerequisite(s): (CIS*1910 or CIS*1900), CIS*2500
Co-requisite(s): CIS*2910
Equate(s): CIS*2420

CIS*2750 Software Systems Development and Integration W (3-2) [0.75]
Techniques and tools used in the development of large software systems. Methods for organizing and constructing modular systems, manipulating files, an introduction to interface design, and use of databases. Software tools for managing projects, database connectivity, configuration management, and system application programmer interfaces. (First offering Winter 2006)

Prerequisite(s): CIS*2430, CIS*2520
Restriction(s): CIS*2450

CIS*2910 Discrete Structures in Computing II S,F (3-2) [0.50]
Introduces graph theory, combinatorics and other discrete structures used in computer science, including graph representations, traversal and simple graph algorithms, trees, counting strategies, summations, and an introduction to finite probability, recursion, and finite state machine models. (First offering Summer 2005.)

Prerequisite(s): CIS*1500, CIS*1910
Restriction(s): CIS*1900

CIS*3110 Operating Systems W (3-1) [0.50]
Operating Systems in theory and practice. Components in a system: scheduling and resource allocation; process management, multi-programming, multi-tasking; I/O control and file systems; mechanisms for client-server computing. Examples from contemporary operating systems.

Prerequisite(s): (CIS*2500 or CIS*2650), Recommended (CIS*2030 or ENGG*2410).

CIS*3120 Digital Systems S,W (3-2) [0.50]
Boolean algebra, minimization of Boolean expressions. Design of combinational and sequential logic circuits. Memory design. Control, ALU, bus design. Microprogramming and CPU design.

Prerequisite(s): CIS*2030

CIS*3210 Computer Networks F (3-1) [0.50]
This course covers the high-level (protocol) oriented aspects of computer networks, specifically: application, session, transport and network layers. It includes the internet, socket-level programming, multimedia and quality of service issues. The hardware aspects (switches, LANs, modems, transmission paths) are covered at only a functional level.

Prerequisite(s): CIS*3110
Restriction(s): CIS*4200

CIS*3460 System Simulation F (3-2) [0.50]

Prerequisite(s): (CIS*2420 or CIS*2520), CIS*3110, STAT*2040

CIS*3490 The Analysis and Design of Computer Algorithms S,W (3-2) [0.50]
The design and analysis of efficient computer algorithms: standard methodologies, asymptotic behaviour, optimality, lower bounds, implementation considerations, graph algorithms, matrix computations (e.g. Strassen's method), NP-completeness.

Prerequisite(s): (CIS*1900 or CIS*2910), (CIS*2420 or CIS*2520)

CIS*3530 Data Base Systems and Concepts F (3-1) [0.50]
Review of data organization and data management principles with the perspective of analyzing applications suitable for implementation using a DBMS. Analysis of several data base models, query specification methods, and query processing techniques. Overview of several related issues including concurrency control, security, integrity and recovery. Students are expected to demonstrate concepts through project assignments.

Prerequisite(s): (CIS*2420 or CIS*2520), (CIS*2450 or CIS*2750)
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<td>Programming Language Foundations</td>
<td>F (3-1)</td>
<td>0.50</td>
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<tr>
<td>CIS*4300</td>
<td>Human Computer Interaction</td>
<td>F (2-2)</td>
<td>0.50</td>
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<tr>
<td>CIS*4350</td>
<td>Compiler Design</td>
<td>F (3-1)</td>
<td>0.50</td>
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<tr>
<td>CIS*4400</td>
<td>Elements of Theory of Computation</td>
<td>U (3-1)</td>
<td>0.50</td>
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<tr>
<td>CIS*4410</td>
<td>Trends in Distributed Systems</td>
<td>W (3-1)</td>
<td>0.50</td>
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<tr>
<td>CIS*4450</td>
<td>Special Topics in Information Security</td>
<td>U (3-1)</td>
<td>0.50</td>
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<tr>
<td>CIS*4460</td>
<td>Computability and Complexity</td>
<td>W (3-1)</td>
<td>0.50</td>
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<tr>
<td>CIS*4470</td>
<td>Image Processing and Vision</td>
<td>W (3-1)</td>
<td>0.50</td>
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<tr>
<td>CIS*4500</td>
<td>Special Topics in Computing Science</td>
<td>U (3-1)</td>
<td>0.50</td>
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<tr>
<td>CIS*4600</td>
<td>Software Engineering</td>
<td>S.W. (3-2)</td>
<td>0.50</td>
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<tr>
<td>CIS*4700</td>
<td>Introduction to Intelligent Systems</td>
<td>W (3-1)</td>
<td>0.50</td>
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<tr>
<td>CIS*4720</td>
<td>Image Processing and Vision</td>
<td>W (3-1)</td>
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<td>CIS*4750</td>
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<td>CIS*4760</td>
<td>Course Description</td>
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<tr>
<td>CIS*4800</td>
<td>Applications of Computing Seminar</td>
<td>F,W (0-6)</td>
<td>0.50</td>
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<td>CIS*4900</td>
<td>Course Description</td>
<td>W (3-1)</td>
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</tbody>
</table>

**CIS*3620 Programming Language Foundations (3-1) [0.50]**
This course explores finite automata, formal languages, parsing, sequential machines and models of computation, including an introduction to Turing machines and the hierarchy of machines/languages. (First offering Summer 2006)

**Prerequisite(s):** (CIS*2450 or CIS*2750), CIS*3490

**Restriction(s):** CIS*4600

**CIS*3650 Compilers F (3-1) [0.50]**
Detailed study of the compilation process. Design and implementation of a compiler considering techniques for parsing building and manipulating intermediate representations of a program and code generation. Interpreters. (Last offering Fall 2005.)

**Prerequisite(s):** (CIS*2030 or IPS*2010), CIS*3110

**CIS*3700 Introduction to Intelligent Systems W (3-1) [0.50]**
This course covers the core topics of Artificial Intelligence, namely: agents and environment, search, knowledge representation, reasoning, and learning. The last 3 topics are covered using logic as the common formalism for coherence. The course introduces a broad range of basic concepts, terminology, and applications, in addition to providing some specific, widely applicable methodologies. (First offering Winter 2006)

**Prerequisite(s):** (CIS*3430 or CIS*3750), STAT*2040

**Restriction(s):** CIS*4750, CIS*4760

**CIS*3750 System Analysis and Design in Applications F (3-2) [0.75]**
An introduction to the issues and techniques encountered in the design and construction of software systems. The theory and models of software evolution. Topics include requirements and specifications, prototyping, design principles, object-oriented analysis and design, standards, integration, risk analysis, testing and debugging. (First offering Fall 2006)

**Prerequisite(s):** CIS*2750

**Restriction(s):** CIS*3430

**CIS*3760 Software Engineering S.W. (3-2) [0.75]**
Examination of the software engineering process and the production of reliable systems. Techniques for the design and development of complex software. Topics include object-oriented analysis, design and modeling, software architectures, software reviews, software quality, software engineering, ethics, maintenance and formal specifications. (First offering Winter 2007)

**Prerequisite(s):** CIS*3530, CIS*3750 (CIS*3110 recommended)

**Restriction(s):** CIS*3200

**CIS*4000 Applications of Computing Seminar F,W (0-6) [0.50]**
This capstone course of the B.Comp. program provides students an opportunity to combine their area of application with their studies in computing via a course project and seminar series. Application areas discussed in any particular semester will depend on areas of application selected by students. Students are required to present their work in a seminar and also to participate in the critical analysis and review of the work of other students taking this course.

**Prerequisite(s):** Registration in semester 7 or higher of the B.Comp. Program and completion of a minimum of 2.50 credits in an Area of Application.

**CIS*4050 Advanced Computer Architectures F (3-1) [0.50]**
Central processor architectures, control and microprogramming, memory systems, special architectures, underlying support for special architectures, architectures suitable for very large scale integration. Offered in even-numbered years and may be offered in odd-numbered years.

**Prerequisite(s):** CIS*2030, CIS*3110, CIS*3120

**CIS*4210 Telecommunications W (3-1) [0.50]**
This course covers the low-level and the hardware-oriented aspects of computer communications, specifically the physical, link, and network layers. It includes basic telecommunication technology, local area networks, low level protocols, switching technologies, wireless and mobile networking, data and stream compression, and error coding. (Offered in odd-numbered years.)

**Prerequisite(s):** CIS*2210

**Restriction(s):** CIS*4120

**CIS*4300 Human Computer Interaction F (2-2) [0.50]**
Methods for user interface software design, including interface representations and testing. Evaluation and design of sample application systems. Impacts of computer-based information systems on individuals and organizations. Implementation and testing tools. Planning of learning stages and design of assistance subsystems. (Offered in odd-numbered years and may be offered in even-numbered years.)

**Prerequisite(s):** CIS*3110, (CIS*3430 or CIS*3750)

**CIS*4400 Distributed Information Systems F (3-2) [0.50]**
This course addresses the basic concepts and methodologies used to build distributed systems applications. The course deals with building information infrastructures involving a base network layer, middleware and application layer. The emphasis is on the enabling methodologies for building complex distributed information systems.

**Prerequisite(s):** (CIS*3210 or CIS*4200), (CIS*3430 or CIS*3750), CIS*3530

**CIS*4410 Trends in Distributed Systems W (3-1) [0.50]**
A course that examines the technical issues surrounding modern and future distributed commercial enterprises. Special attention is given to new communication modes, high volume, data-intensive systems, distributed transactions and security mechanisms.

**Prerequisite(s):** (CIS*3210 or CIS*4200), (CIS*3430 or CIS*3750), CIS*3530

**CIS*4430 Information Organization and Retrieval W (3-1) [0.50]**
Advanced techniques for information management. Analysis of advanced indexing structures. Information retrieval, feedback strategies, text searchings, automatic indexing. Database query optimization and system support. Web based retrieval. (Offered in even-numbered years and may be offered in odd-numbered years.)

**Prerequisite(s):** CIS*3110, CIS*3530, (CIS*3430 or CIS*3750)

**CIS*4450 Special Topics in Information Science U (3-1) [0.50]**
A variety of advanced topics mainly from areas within general information processing. Subject areas discussed in any particular semester will depend on the interests of the students and the instructor. Students should check with the Department of Computing and Information Science to determine what topic will be offered during specific semesters and which prerequisites, if any, are appropriate.

**Restriction(s):** Instructor consent required.

**CIS*4500 Special Topics in Computing Science U (3-1) [0.50]**
A variety of advanced topics within Computing Science. Subject areas discussed in any particular semester will depend upon the interests of both the students and the instructor. Students should check with the Department of Computing and Information Science to determine what topic will be offered during specific semesters and which prerequisites, if any, are appropriate.

**Restriction(s):** Instructor consent required.

**CIS*4600 Elements of Theory of Computation F (3-0) [0.50]**
An introduction to finite automata, formal languages and sequential machines. Models of computation, including Turing machines and the hierarchy of machines/languages. Decidability and computability. (Last offering Fall 2005.)

**Prerequisite(s):** (CIS*2450 or CIS*2750), CIS*3110, CIS*3490

**CIS*4620 Computability and Complexity W (3-1) [0.50]**
This course explores the theory of computation: Turing machines and variants, computability, NP and NP-completeness, complexity classes, reductions, undecidability and intractability. (Offered in odd-numbered years.) (First offering Winter 2007.)

**Prerequisite(s):** CIS*3620

**Restriction(s):** CIS*4600

**CIS*4650 Compilers W (3-1) [0.50]**
This course is a detailed study of the compilation process. Topics include interpreters, overall design implementation of a compiler, techniques for parsing, building and manipulating intermediate representations of a program, implementation of important features, code generation and optimization. (First offering Winter 2007.)

**Prerequisite(s):** (CIS*2030 or IPS*2010), CIS*3110, CIS*3620

**Restriction(s):** CIS*3650

**CIS*4720 Image Processing and Vision W (3-1) [0.50]**
This course is an introduction to the process of image processing. Emphasis is placed on topics such as image enhancement, segmentation morphological analysis, texture analysis, visualization and image transformations. Applications of image processing in medicine, forensics, food and security are surveyed. (Offered in odd-numbered years.) (First offering Winter 2007.)

**Prerequisite(s):** (CIS*2450 or CIS*2750), CIS*3110, STAT*2040 (CIS*3700 recommended)

**Restriction(s):** CIS*4760
### Course Descriptions, Computing and Information Science

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Description</th>
<th>Prerequisite(s)</th>
<th>Restriction(s)</th>
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<tbody>
<tr>
<td>CIS*4730</td>
<td>Pattern Recognition W (3-1) [0.50]</td>
<td>This course introduces fundamental concepts, theories and algorithms for pattern recognition, which are used in areas including computer vision, signal processing, speech recognition and linguistics. Major themes include statistical pattern classification, supervised and unsupervised learning, feature selection and extraction, clustering, image classification, and syntactical pattern recognition. (Offered in even-numbered years.) (First offering Winter 2008)</td>
<td>(CIS<em>2450 or CIS</em>2750), CIS<em>3110, STAT</em>2040 (CIS*3700 recommended)</td>
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<tr>
<td>CIS*4750</td>
<td>Artificial Intelligence F (3-1) [0.50]</td>
<td>Examination of techniques used in the field of artificial intelligence including: heuristic search, A* algorithms, game searches, logic based knowledge representation. Other topics may include frames, scripts, semantic nets, models of uncertain reasoning, expert systems and natural language understanding. These ideas will be explored through the development of a substantial project. (Last offering Fall 2005.)</td>
<td>CIS<em>3110, (CIS</em>3430 or CIS*3750)</td>
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<tr>
<td>CIS*4760</td>
<td>Computer Vision and Pattern Recognition W (3-0) [0.50]</td>
<td>Image enhancement, image smoothing, thresholding, segmentation, region growing, decision-theoretical methods, information theory, neural networks, syntactic/structural methods, applications. Computer graphic experience desirable. Offered in odd-numbered years and may be offered in even-numbered years. (Last offering Winter 2006.)</td>
<td>(CIS<em>2450 or CIS</em>2750), CIS<em>3110, STAT</em>2040</td>
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<tr>
<td>CIS*4770</td>
<td>Topics in Artificial Intelligence F (3-1) [0.50]</td>
<td>This course explores selected topics in Artificial Intelligence at an intermediate level. Topics will be chosen to acquaint students with important aspects of Artificial Intelligence having the greatest current interest. (Offered in even-numbered years.) (First offering Fall 2006.)</td>
<td>CIS*3700</td>
<td></td>
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<tr>
<td>CIS*4780</td>
<td>Computational Intelligence F (3-1) [0.50]</td>
<td>This course introduces concepts of soft computing: modelling uncertainty, granular computing, neurocomputing, evolutionary computing, probabilistic computing and soft computing for software engineering. (Offered in odd-numbered years.) (First offering Fall 2007.)</td>
<td>(CIS<em>3430 or CIS</em>3750), CIS<em>3490, STAT</em>2040 (CIS*3700 recommended)</td>
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<tr>
<td>CIS*4800</td>
<td>Computer Graphics W (3-1) [0.50]</td>
<td>Introduction to computer graphics. Topics include graphics programming concepts, geometrical transformations, viewing 3-D projections, raster graphics, sculptured surfaces, visible surface determination, image processing and other special topics. Practical issues will be covered by assignment using currently available graphics equipment. (Offered in even-numbered years.)</td>
<td>CIS<em>3110, (CIS</em>3430 or CIS*3750)</td>
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<tr>
<td>CIS*4820</td>
<td>Game Programming W (3-1) [0.50]</td>
<td>This course will focus on the components found in modern 3-D game engines. It will emphasize the algorithms and data structures required to create real-time computer graphics, sound and network communications. (Offered in odd-numbered years.) (First offering Winter 2007.)</td>
<td>CIS<em>3110, (CIS</em>3430 or CIS*3750)</td>
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<tr>
<td>CIS*4900</td>
<td>Computer Science Project S,F,W (0-6) [0.50]</td>
<td>Planning, developing and writing a research proposal under individual faculty supervision. The course, in continuation with CIS*4910 provides senior undergraduates an opportunity to pursue an independent course of study. The topic selected will be determined by agreement between the student and the faculty member with expertise in the area.</td>
<td>2 CIS courses at the 4000 level</td>
<td>Instructor consent required.</td>
</tr>
<tr>
<td>CIS*4910</td>
<td>Computer Science Thesis S,F,W (0-6) [0.50]</td>
<td>This course is a continuation of CIS*4900. The student will conduct and write an undergraduate thesis under the individual supervision of a faculty member. In addition the student is required to present his/her work in a seminar and also participate in the critical analysis and review of the work of other students taking this course.</td>
<td>CIS*4900</td>
<td>Instructor consent required.</td>
</tr>
</tbody>
</table>
Co-operative Education

Co-operative Education Services.

COOP*XXXX courses are limited to students registered in a co-operative education program.

**COOP*1000 Co-op Work Term I F,W,S (3-0) [0.00]**

This is a semester long experience in a paid work setting. Co-op work semesters differ depending on the program and major. Location of the semester is varied. Refer to program of study for the semester in which this is scheduled. Students must obtain a passing grade in order to continue in the Co-op Program.

Prerequisite(s): COOP*1100

**COOP*1100 Introduction to Co-operative Education F,W (3-0) [0.00]**

This course will introduce students to the theory and practice of co-operative education at the University of Guelph. Students will learn to take full advantage of the co-op option. They will acquire practice in the skills required to succeed in the competitive process of securing suitable work terms. Specifically, the course will cover: characteristics and expectations of the “new” world of work, interview skills, resume and cover letter writing, as well as general skills required to be successful in the co-op program. Students also obtain practice in the co-op employment process.

Restriction(s): Enrolment in a co-operative education program

**COOP*2000 Co-op Work Term II F,W,S (3-0) [0.00]**

This is a semester long experience in a paid work setting. Co-op work semesters differ depending on the program and major. Location of the semester is varied. Refer to program of study for the semester in which this is scheduled. Students must obtain a passing grade in order to continue in the Co-op Program.

Prerequisite(s): Completion of previous co-op work requirements in COOP*1000

**COOP*3000 Co-op Work Term III F,W,S (3-0) [0.00]**

This is a semester long experience in a work setting. Co-op work semesters differ depending on the program and major. Location of the semester is varied. Refer to program of study for the semester in which this is scheduled. Students must obtain a passing grade in order to continue in the Co-op Program.

Prerequisite(s): Completion of previous co-op work requirements in COOP*2000

**COOP*4000 Co-op Work Term IV F,W,S (3-0) [0.00]**

This is a semester long experience in a work setting. Co-op work semesters differ depending on the program and major. Location of the semester is varied. Refer to program of study for the semester in which this is scheduled. Students must obtain a passing grade in order to continue in the Co-op Program.

Prerequisite(s): Completion of previous co-op work requirements in COOP*3000

**COOP*5000 Co-op Work Term V F,W,S (3-0) [0.00]**

This is a semester long experience in a work setting. Co-op work semester differ depending on the program and the major. Location of the semester is varied. Refer to program of study for the semester in which this is scheduled. Students must obtain a passing grade in order to continue in the Co-op program.

Prerequisite(s): Completion of previous co-op work requirements in COOP*4000
## Crop Science

**Department of Plant Agriculture**

### CROP*2050 Gateway to Organic Agriculture F (3-3) [0.50]
Students taking this course will be exposed to the full spectrum of opportunities in the field of organic agriculture, from social policy and marketing to crop rotation and rare breeds. In addition to lectures provided by faculty from several departments, guest speakers will offer practical insights into the field. Experiential learning will be encouraged, through data collection and analysis from organically managed land and from site interviews with practitioners in the field.

**Prerequisite(s):** 5.00 credits

**Restriction(s):** CROP*3400

### CROP*2110 Crop Ecology W (3-0) [0.50]
Fundamental ecological principles are applied to managed agricultural ecosystems. Crop selection and viewing are as influencing interactions among species and the environment. Adaptation and distribution of temperate zone crops are related to both environmental constraints and human intervention.

**Prerequisite(s):** BIOL*1040

### CROP*2280 Crops in Land Reclamation F (2-2) [0.50]
The use of vegetation to reclaim land disturbed by human intervention, including mining and extraction, construction of right-of-ways, waste disposal, and logging, are introduced. Fundamentals of soil, plant, and associated microbial relations are reviewed, with emphasis on plant adaptation to soil constraints. Presentations by guest speakers and visits to nearby sites are used to identify the off as well as on-site environmental implications of land disturbance.

### CROP*3130 Tutorials in Organic Agriculture II W (3-2) [0.50]
Building on the introductory exposure offered in CROP*2050, this course will rely on small group mentoring to stimulate independent, learner-centered analysis of selected topics in organic agriculture. Students will participate in an interdisciplinary analysis of case study topics offered in the form of two, 6-week modules in biophysical and social areas, including organic certification, non-chemical pest management, organics in an international context, and enhancing soil and crop health. The goal is to encourage holistic, systematic thinking in students learning to become self-directed analysts and decision-makers. Seminar periods will support both guest speakers and student presentations.

**Prerequisite(s):** CROP*2050

### CROP*3300 Grain Crops W (3-0) [0.50]
Management strategies and world production of the major temperate grain crops are studied relative to their botanical and physiological characteristics and to available environmental resources. The utilization of grain crops for human food, livestock feed, and various industrial products are examined. (Offered in odd-numbered years.)

**Prerequisite(s):** 1 of AGR*2451/2, AGR*2470, CROP*2110

### CROP*3310 Protein and Oilsseed Crops F (3-0) [0.50]
Management strategies and world production of the major temperate protein and oilseed crops are studied relative to their botanical and physiological characteristics and to available environmental resources. The utilization of protein and oilseed crops for human food, livestock feed and various industrial products are examined. (Offered in odd-numbered years.)

**Prerequisite(s):** 1 of AGR*2451/2, AGR*2470, CROP*2110

### CROP*3340 Managed Grasslands W (3-2) [0.50]
Managed forage grasses and legumes provide grazing, conserved feed, and a wider range of services to the environment and society at large. Agro-ecological, genetic, and managerial considerations will be integrated toward addressing questions of ruminant production and environmental management. Species will be distinguished morphologically and physiologically, focusing on adaptation to climatic, edaphic, and managerial constraints. Topics will include: physiological attributes of forage species, sward lifespan, establishment and maintenance practices, forage quality indices and harvest management.

**Prerequisite(s):** 1 of AGR*2451/2, AGR*2470, CROP*2110

### CROP*3400 Managed Grasslands W (3-2) [0.50]
Fundamentals of soil, plant, and associated microbial relations are reviewed, with emphasis on plant adaptation to soil constraints. Presentations by guest speakers and visits to nearby sites are used to identify the off as well as on-site environmental implications of land disturbance.

### CROP*3420 Weed Science F (3-3) [0.50]
Weeds will be studied in relation to agricultural practices. Principles of chemical, mechanical and biological control will be outlined. Laboratories will include weed identification, weed control methods, and demonstrations of the effects of various herbicides.

**Prerequisite(s):** AGR*2451/2 or AGR*2470

### CROP*4260 Crop Science Field Trip F (0-4) [0.50]
A field study designed to increase the student's knowledge of agricultural production and agri-business. Students will tour a selected area of North America prior to the fall semester, visiting cash crop and livestock farms, supporting industries (e.g. processing, manufacturing) and markets (e.g. elevators, stockyards). A fee of approximately $750.00 per student will be assessed.

**Prerequisite(s):** 12.50 credits including AGR*2451/2 or AGR*2470

### CROP*4340 Seminar: Selected Topics in Crop Science F (2-0) [0.50]
This course is designed to permit students to study topics of current interest in the production of crops for feed and food purposes. Students will present seminars and prepare video presentations on the selected topics.

**Prerequisite(s):** 0.50 credits at the 3000 level in Crop Science

### CROP*4350 Crop Science Research Project I S,F,W (2-0) [0.50]
Students will select a problem in crop science, conduct an extensive search and review of the literature and outline an experiment to conduct on the problem. The outline will be presented as a seminar.

**Prerequisite(s):** 12.50 credits

**Restriction(s):** Registration in the B.Sc. or B.Sc.(Agr.) program.

### CROP*4360 Crop Science Research Project II S,F,W (2-0) [0.50]
Students will conduct an experiment with the objective of providing information about some problem in crop science. The problem may be a field, growth room or a laboratory experiment which may have been outlined in CROP*4350. Research findings will be written up in scientific style and a brief seminar of results presented.

**Prerequisite(s):** CROP*4350 or by permission
Drama
School of English and Theatre Studies

NOTES: Admission to the following courses is not guaranteed, and is by audition, submission of a portfolio and/or interview only:

DRMA*2620 [0.50] Special Studies in Theatre Practice
DRMA*3110 [0.50] Acting II
DRMA*3120 [0.50] Acting III
DRMA*3410 [0.50] Special Studies in Production I
DRMA*3420 [0.50] Special Studies in Production II
DRMA*3600 [0.50] Directed Readings and Special Independent Studies
DRMA*3610 [0.50] Directed Readings and Special Independent Studies
DRMA*3620 [0.50] Special Studies Seminar
DRMA*3630 [0.50] Special Studies Seminar
DRMA*4090 [0.50] Directing
DRMA*4210 [0.50] Scenography
DRMA*4250 [0.50] Honours Project in Theatrical Production I
DRMA*4260 [0.50] Honours Project in Theatrical Production II
DRMA*4650 [0.50] Honours Essay

For times and dates of auditions and interviews, students should consult the School. All students applying for entry to these courses must obtain the signature of the Drama Program advisor or the Director, who will admit students only after consultation with the instructor. The Drama program has a particular interest in the drama and theatre of Canada. Course offerings will reflect this concentration where appropriate.

DRMA*1000 Introduction to Theatre F,W (3-3) [0.50]
This course deals with the nature and function of drama and theatre in society, and with the role and function of different aspects of theatre in production, including playwriting, directing, acting, design, and technical theatre. It concerns itself with the social and cultural role played by theatre as an art form, and with how theatre is produced and produces its effects. The course is designed to introduce students to ways of discussing, analyzing and writing about the theatrical event. It will include attendance at selected productions, and a fee will be charged for the cost of travel to them.

DRMA*1050 Script Analysis F,W (3-0) [0.50]
An introduction to the reading and analysis of scripts, and the different ways in which critics, directors, actors, and designers approach them. The course will include exercises in the written analysis of a limited number of scripts.

DRMA*1090 Public Presentation F,W (2-3) [0.50]
This course introduces students to acting techniques which are useful to those making public presentations in any number of contexts, including the classroom and employment situations. The course will not be counted towards a major or minor in Drama.

DRMA*1500 Introduction to Film F (2-3) [0.50]
A study of films from a variety of periods and places, this course aims to introduce the basic components of film language and to promote the understanding of film as an art form. Through the viewing and analysis of selected films, key concepts such as photography, editing and movement will be explored, as will matters such as style, authorship, and genre.

DRMA*2080 Acting I F,W (2-3) [0.50]
A studio course for drama students applying classroom theory to acting problems. The course is required of, but not restricted to, students in a drama specialization.

DRMA*2220 Introduction to Technical Theatre and Design F,W (2-3) [0.50]
An introduction for drama students to the theory and practice of theatrical production and design, including sets, costumes, lighting, sound, and technical drawing. Students may be expected to serve on some evenings and weekends in technical capacities on a production.

DRMA*2300 Introduction to Theatre History, Criticism and Theory F (3-0) [0.50]
This course will initiate the student into the academic study of theatre history, criticism and theory. It will focus on a variety of historical, critical and theoretical approaches to the analysis of drama and theatre.

DRMA*2400 Theatre for Young Audiences W (2-2) [0.50]
A study of the theory and practice of theatre for young audiences, including script analysis and practical performance exercises.

DRMA*2500 Contemporary Cinema W (2-3) [0.50]
The course is designed to give the student knowledge and understanding of contemporary cinematic expression.

DRMA*2620 Special Studies in Theatre Practice F,W (2-3) [0.50]
Students will perform in School productions; or students with prior experience may apply to serve in technical capacities on productions. Admission is by application to the School.

DRMA*3080 Acting Studio F,W (2-3) [0.50]
A studio course in acting that will address particular issues and techniques, and may conclude with a small-scale production.

DRMA*3110 Acting II F,W (2-3) [0.50]
A continuation of DRMA*3080. Students will perform in a public production. Admission is by audition only.

DRMA*3120 Acting III F,W (2-3) [0.50]
A continuation of DRMA*3110. Students will perform in a public production. Admission is by audition only.

DRMA*3180 Concepts and Methods of Theatre History W (3-0) [0.50]
A study of theatre history and historiography, focusing on the relationships between the plays written in selected historical periods and the theatrical and cultural conditions that shaped them. The course will explore various approaches and methods of historical interpretation.

DRMA*3220 Technical Production I F,W (2-3) [0.50]
A continuation of DRMA*3220, focusing on the theory and application of theatrical crafts, and including work in a technical capacity on a School production.

DRMA*3230 Technical Production II F,W (2-3) [0.50]
A continuation of DRMA*3220, focusing on the theory and application of theatrical crafts, and including work in a technical capacity on a School production. Students will normally work in different capacities in DRMA*3220 and DRMA*3230.

DRMA*3240 Theatrical Organization F (3-0) [0.50]
A study of various models of theatrical organization such as theatrical funding, board and management structures, production management, technical direction, and stage management, together with their implications for theatrical production and interpretation.

DRMA*3320 Applied Criticism of Drama and Theatre F (3-0) [0.50]
This course is designed to engage students in critical practice as applied to theatrical production.

DRMA*3410 Special Studies in Production I F,W (2-3) [0.50]
Students will serve in such capacities as stage managers, assistant stage managers, assistant directors, assistant designers, dramaturges, producers, or publicists on School productions, and will study the functions of these roles in theatrical production. Admission is by application to the School.

DRMA*3420 Special Studies in Production II F,W (2-3) [0.50]
A continuation of DRMA*3410. Students will normally work in different capacities in DRMA*3410 and DRMA*3420. Admission is by application to the School.

DRMA*3430 Theatrical Design: Sets and Props F (3-0) [0.50]
A study of the history, theory, and practice of theatrical design, with focus on the principles of set and prop design.

DRMA*3440 Theatrical Design: Costume and Lighting W (2-3) [0.50]
A study of the history, theory, and practice of theatrical design with focus on the principles of costume and lighting design.
XII. Course Descriptions, Drama

DRMA*3530 Canadian Film W (2-3) [0.50]
This course is designed to give the student knowledge and understanding of Canadian film and film makers.

Prerequisite(s): DRMA*1500

DRMA*3550 Theories of Drama and Theatre W (3-0) [0.50]
A study of selected theoretical approaches to the study of drama and theatre.

Prerequisite(s): DRMA*3600

DRMA*3600 Directed Readings and Special Independent Studies U (3-0) [0.50]
Independent study based upon bibliographies established in consultation with the instructor. An essay will normally constitute the written requirement for the course. Tutoring and/or consultation will be arranged, depending on the topic or materials for study. Special studies may also be arranged in the practical aspects of the theatre, with appropriate assignments, not leading to a production. Projects for this course are subject to the approval of the School, and must be submitted to the Director, on forms provided by the School, no later than the last day of classes in the semester prior to enrolment in the course.

Prerequisite(s): 3.00 credits in Drama including DRMA*1050, DRMA*2300
Restriction(s): Instructor consent required.

DRMA*3610 Directed Readings and Special Independent Studies U (3-0) [0.50]
Same as DRMA*3600.

Prerequisite(s): DRMA*3600
Restriction(s): Instructor consent required.

DRMA*3620 Special Studies Seminar F (3-0) [0.50]
A seminar course that provides for intensive study of a specific aspect of drama and/or theatre.

Prerequisite(s): 3.00 credits in Drama including DRMA*1050, DRMA*2300
Restriction(s): Instructor consent required.

DRMA*3630 Special Studies Seminar F (3-0) [0.50]
Same as DRMA*3620.

Prerequisite(s): DRMA*3620
Restriction(s): Instructor consent required.

DRMA*3700 Fundamentals of Directing F (2-3) [0.50]
A study of the basic theories of directing, complemented by practical in-class directing exercises.

Prerequisite(s): DRMA*1050, DRMA*2080

DRMA*3850 Canadian Drama and Theatre F (3-0) [0.50]
A study of Canadian plays in their historical, cultural, and theatrical contexts.

Prerequisite(s): DRMA*2300 or any 2000 level literature course
Restriction(s): DRMA*3331/2

DRMA*3950 Drama in London W (2-4) [0.50]
A course designed for students taking the London Semester consisting of a study of theatre events in London, through attending performances, reading texts and meeting for weekly seminars.

Restriction(s): Instructor consent required.

DRMA*4090 Directing F,W (3-2) [0.50]
The application of the fundamentals of directing through a specific directorial assignment. Admission is by application to the School.

Prerequisite(s): DRMA*3700
Restriction(s): Instructor consent required.

DRMA*4210 Scenography W (2-3) [0.50]
An integrated studio course in scenographic concepts and techniques for the theatre. Admission is by application to the School.

Prerequisite(s): DRMA*3430
Restriction(s): Instructor consent required.

DRMA*4250 Honours Project in Theatrical Production I F,W (0-6) [0.50]
The completion, under direction, of a project in acting, directing, dramaturgy, design or technical theatre. Students will normally work in different capacities in DRMA*4250 and DRMA*4260. Admission is by application to the School.

Prerequisite(s): 1 of DRMA*3110, DRMA*3220, DRMA*3430, DRMA*3440, DRMA*3700 as appropriate
Restriction(s): Instructor consent required.

DRMA*4260 Honours Project in Theatrical Production II F,W (0-6) [0.50]
Same as DRMA*4250.

Prerequisite(s): DRMA*4250
Restriction(s): Instructor consent required.

DRMA*4300 Seminar in Theatre History F (3-0) [0.50]
A study in depth of one aspect or period of theatre history or historiography. (Offered in even-numbered years.)

Prerequisite(s): 0.50 credits in theatre history at the 3000 level

DRMA*4310 Seminar in Theory of Drama and Theatre F (3-0) [0.50]
A study in depth of one aspect of dramatic or theatrical theory. (Offered in odd-numbered years.)

Prerequisite(s): DRMA*3550

DRMA*4320 Seminar in Dramatic Literature W (3-0) [0.50]
A study in depth of one aspect of dramatic literature. (Offered in even-numbered years.)

Prerequisite(s): 0.50 credits in dramatic literature at the 3000 level

DRMA*4330 Seminar in Canadian Drama and Theatre W (3-0) [0.50]
A study in depth of one aspect of Canadian drama and theatre. (Offered in odd-numbered years.)

Prerequisite(s): 0.50 credits at the 3000 level in dramatic, Canadian literature or theatre history

DRMA*4340 Playwriting F (3-0) [0.50]
A study of the theory and practice of playwriting. Admission is by application to the instructor.

Prerequisite(s): 0.50 credits in dramatic literature or creative writing at the 3000 level
Restriction(s): Instructor consent required.

DRMA*4650 Honours Essay U (3-0) [0.50]
The completion, under direction, of a scholarly essay in the study of drama and/or theatre. Admission is by application to the instructor.

Prerequisite(s): at least 1.00 credits in dramatic literature, theory, or theatre history at the 3000 level or above
Restriction(s): Instructor consent required.
Economics

Department of Economics.

For courses without semester designations, please check with the department. Advance schedules are available in the department.

ECON*1050 Introductory Microeconomics S,F,W (3-0) [0.50]
An introduction to the Canadian economy; price determination, market structure and resource allocation; the behaviour of consumers and firms; market intervention by government. Some of the economic issues addressed may include agricultural price supports, rent control, the NAFTA, environmental regulation, price discrimination, pay equity, and taxation. (Also offered through distance education format.)
Equate(s): ECON*1200

ECON*1100 Introductory Macroeconomics S,F,W (3-0) [0.50]
The Canadian economy: aggregate performance and policy; an analysis of the determinants of national income, employment and the price level, the role of government monetary and fiscal policies in improving the rate of economic growth. (Also offered through distance education format.)
Prerequisite(s): ECON*1050

ECON*2000 Contemporary Economic Problems in Canada W (3-0) [0.50]
A study of important socio-economic issues in Canada using the basic principles of macro and microeconomics. Discussion and analysis of population, poverty, foreign ownership, regional development, etc.
Prerequisite(s): ECON*1050, ECON*1100

ECON*2100 Economic Growth and Environmental Quality F (3-0) [0.50]
An examination of the implications of economic growth on the quality of the environment, employing the basic principles of economic analysis. (Also offered through distance education format.)
Prerequisite(s): ECON*1050

ECON*2150 Introduction to Business Economics S,F,W (3-0) [0.50]
A course intended for those with an interest in economics as it pertains to business. (Not intended for students in Economics or Commerce programs.) Four modules to be completed: two on microeconomic principles and their application to business problems; one using on-line databases and electronic publications; one from a list of applied topics. (Offered through distance education format only.)
Restriction(s): ECON*1050, ECON*1100. Not available to students in the Bachelor of Commerce Program.

ECON*2200 Industrial Relations F (3-0) [0.50]
This is a survey course of the Canadian industrial relations system. Among the topics covered are: the growth and objectives of unions, the legal framework of collective bargaining, the effects of unions on industry and the economy, industrial conflict and public policies.
Prerequisite(s): ECON*1050

ECON*2310 Intermediate Microeconomics S,F,W (3-1) [0.50]
The analysis of the behaviour of households and firms under alternative assumptions and market conditions. (Also offered through distance education format.)
Prerequisite(s): ECON*1050, (AGR*1101/2 or ECON*1100)

ECON*2410 Intermediate Macroeconomics S,F,W (3-1) [0.50]
The analysis of closed economy models of aggregate spending, output, employment, prices and interest rates under alternative assumptions about the nature of labour, product and financial markets. The analysis of theories of consumption, investment and money demand. (Also offered through distance education format.)
Prerequisite(s): ECON*1050, ECON*1100

ECON*2420 Canadian Economic History U (3-0) [0.50]
This course surveys the development of the Canadian economy from the aboriginal economy to the early fur and fish trades, agricultural settlement, industrialization, the Great Depression, growth of the public sector and fast economic growth after World War Two. Particular attention is paid to international economic relations and to regional differences within Canada.
Prerequisite(s): ECON*1050, (ECON*1100 or HIST*2450)

ECON*2500 Introduction to the Economics of Law, Crime and Enforcement U (3-0) [0.50]
An introduction to the economic analysis of law, participation in illegal labour and product markets and optimal law enforcement. Topics covered may include the economics of property, contract and tort law, the costs of crime and crime control, measurement of deterrence, regulatory enforcement, trade-offs in the likelihood and severity of punishment and tax evasion.
Prerequisite(s): ECON*1050

ECON*2650 Introductory Development Economics F (3-0) [0.50]
This course introduces students to the economic experience of developing countries, the ways in which economists try to understand it, and the implications for policy. The basic tools of economic analysis as taught in the introductory courses are used to analyse topics such as theories of growth, trade, education, foreign investment, exchange rates, labour markets, the role of government, environmental sustainability and strategies related to agriculture, population, industry and investment.
Prerequisite(s): ECON*1050, ECON*1100

ECON*2720 Business History F (3-0) [0.50]
This course surveys the evolution of economic activity and organization from the industrial revolution to the present. Particular attention is given to the changing relationship between technology and business organization, the shift from proprietorship to corporation and the rise of multinational enterprise. Other topics may include the relationship between business and government, the role of the entrepreneur in the process of technical change and the evolution of work patterns and standards of living.
Prerequisite(s): ECON*1050, (ECON*1100 or any 1.50 credits in history)

ECON*2740 Economic Statistics F,W (3-0) [0.50]
A course designed to prepare students conceptually and mathematically for ECON*3560, Theory of Finance and ECON*3740, Introduction to Econometrics. Topics include the summation operator, descriptive statistics, frequency distributions, probability and statistical independence, the binomial distribution, algebra of the expectation operator, discrete bivariate distributions, covariance, variance of a linear function of random variables, the normal and t distributions, sampling distributions, point and interval estimation, hypothesis testing and an introduction to ordinary least squares. Additional topics may be included at the instructor's discretion. Examples and assignment questions are drawn from economics and finance.
Prerequisite(s): ECON*1050, ECON*1100, (1 of MATH*1000, MATH*1050, MATH*1080, MATH*1200)

ECON*2770 Introductory Mathematical Economics F,W (3-1) [0.50]
This course applies the elements of calculus and matrix algebra to simple microeconomic and macroeconomic problems.
Prerequisite(s): ECON*1050, ECON*1100, (1 of MATH*1000, MATH*1080, MATH*1200)

ECON*3200 Economics of Industrial Relations U (3-0) [0.50]
An economic analysis of the Canadian industrial relations system. Emphasis is placed on understanding the theoretical implications of unions and collective bargaining practices for wage and employment outcomes. Empirical analysis of the nature and growth of unions and of their effect on industrial conflicts, public policy and the performance of the economy.
Prerequisite(s): ECON*2310

ECON*3300 Economics of Health and the Workplace U (3-0) [0.50]
This course will introduce students to concepts of health economics with particular relevance to workplace issues. Topics to be covered include the determinants of health, the demand for and supply of health care, the market for health care providers, health insurance, public and private, the role of health insurance in the labour market, whether not having to provide comprehensive health insurance to their workers gives Canadian firms an edge over their American competitors, workplace health risks and their effects on working conditions and salaries, workplace wellness programs and their evaluation, and the analysis of the cost effectiveness of health interventions.
Prerequisite(s): ECON*2310, ECON*2740

ECON*3500 Urban Economics U (3-0) [0.50]
This course introduces students to the economic experience of Canadian cities, the analysis of the determinants of urban growth and the role of government in urban affairs and the interaction between urban and rural economies. Tools of economic analysis as taught in the introductory courses are used to analyse topics such as housing, urban poverty, municipal financing, transportation, etc.
Prerequisite(s): ECON*2310

ECON*3510 Money, Credit and the Financial System U (3-0) [0.50]
An economic analysis of the payments system, banking and other financial institutions and of credit markets. Bank of Canada operations and policy instruments. Monetary theory and policy.
Prerequisite(s): ECON*2310, ECON*2410

ECON*3520 Labour Economics U (3-0) [0.50]
A study of the labour market, wage determination and the relationship between wages, employment, and prices.
Prerequisite(s): ECON*2310
### XII. Course Descriptions, Economics

**ECON*3530 Industrial Organization U (3-0) [0.50]**
This course examines industries in which firms have the potential to exercise market power. Topics include how the competitive environment affects the behaviour of firms, measuring the extent of market power on welfare. The performance of markets under monopolies, dominant firms, cartels and oligopolies is examined and related aspects of Canadian competition policy and regulations are discussed.

Prerequisite(s): ECON*2310, ECON*2770

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**ECON*3560 Theory of Finance F (3-0) [0.50]**
Capital budgeting and long-term finance and investment decisions by firms and individuals. Introduction to capital asset pricing under uncertainty and to concept of efficient markets. Major emphasis is on corporate finance. (Also offered through distance education format.)

Prerequisite(s): ECON*2310, (1 of ECON*2740, PSYC*2010, STAT*2040, STAT*2050, STAT*2060, STAT*2080, STAT*2090, STAT*2100, STAT*2120)

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**ECON*3580 Economics of Regulation U (3-0) [0.50]**
A study of the economic reasons for government intervention in the marketplace. Emphasis will be placed on the role of crown corporations, regulatory agencies, regulation rules and public sector price-setting in the Canadian economy.

Prerequisite(s): ECON*2310

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**ECON*3600 Macroeconomics in an Open Economy W (3-0) [0.50]**
International macroeconomic issues; the balance of payments; models of exchange rate determination; foreign exchange risk and covered interest arbitrage; alternative exchange rate regimes; small versus large economies; monetary and fiscal policy in an open economy.

Prerequisite(s): ECON*2410, ECON*2740, ECON*2770

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**ECON*3610 Public Economics U (3-0) [0.50]**
This course examines the interventionist role of government in the economy. It examines several sources of market failure which are used to justify government intervention. These include public goods, externalities and redistribution. The course also evaluates alternative sources of government revenue from the perspectives of both equity and efficiency. These include the personal and corporate income taxes, sales taxes and wealth taxes.

Prerequisite(s): ECON*2310

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**ECON*3620 International Trade (3-0) [0.50]**
An introduction to the general equilibrium analysis of international trade, international factor movements and commercial policy. Special emphasis is given to Canada's international trade relationships.

Prerequisite(s): ECON*2310

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**ECON*3660 Economics of Equity Markets U (3-0) [0.50]**
This course studies the economic literature regarding the determination of security prices and the operation of the stock market. (Also offered through distance education format.)

Prerequisite(s): ECON*3560

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**ECON*3710 Advanced Microeconomics S,F (3-1) [0.50]**
An in-depth treatment of consumer and producer theory leading to the general equilibrium model of the economy and the study of welfare economics.

Prerequisite(s): ECON*2310, ECON*2770. A grade average of 70% or more in these courses is recommended.

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**ECON*3720 History of the World Economy since 1850 U (3-0) [0.50]**
Study of the evolution of the world economy since 1850. Topics may include the costs and benefits of empire to Britain, Anglo-German trade rivalry, the rise to prominence of "settler colonies", economic growth in the Third World, reparations and war debt, agricultural overproduction, origins of the Great Depression, the 1945-1973 boom in world production and trade.

Prerequisite(s): ECON*1050, ECON*1100, (1 of ECON*2310, EURO*2070, HIST*2450, HUMN*2070, ISS*2010)

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**ECON*3730 Europe and the World Economy to 1914 U (3-0) [0.50]**
This course surveys the world economy with a particular focus on the industrial revolution in Europe, demographic change, the rise to prominence of the 'settler colonies', the origins of international inequality and the experience of globalization during the later nineteenth century. Particular attention is given to international trade, capital flows and migration.

Prerequisite(s): ECON*1050, ECON*1100, (1 of ECON*2310, EURO*2070, HIST*2450, HUMN*2070, DEV*2010)

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**ECON*3740 Introduction to Econometrics F,W (3-1) [0.50]**
A computer-based course involving the specification and estimation of economic models and the testing of economic hypotheses using appropriate test statistics. Topics include the summation operator, expectation operator, ordinary least squares estimation, dummy variables, seasonality, multicollinearity, heteroskedasticity, autocorrelation, data sources (including uses of the Data Resource Centre). Additional topics may be included at the instructor's discretion. Heavy emphasis will be placed on applications and writing up results. Some use of spreadsheet software (e.g. QuattroPro, Excel) and statistical software (e.g. TSP, SHAZAM) will be required.

Prerequisite(s): ECON*2310, ECON*2410, ECON*2740, ECON*2770

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**ECON*3770 Mathematical Economics and Game Theory W (3-1) [0.50]**
This course extends the application of mathematical techniques to problems in both macroeconomics and microeconomics: comparative statics; the Envelope Theorem; Euler's Theorem; special matrices, vector spaces and quadratic forms. Approximately half the course is devoted to static and dynamic game theory with both complete and incomplete information and uncertain outcomes.

Prerequisite(s): ECON*2310, ECON*2410, ECON*2770

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**ECON*4500 Topics in Urban Economics U (3-0) [0.50]**
This course will investigate selected theoretical and applied topics in urban economics in depth. Among topics which might be treated are location theory, the theory of spatial structure, transportation economics, the economics of housing, the economics of land use regulation, urban public finance.

Prerequisite(s): ECON*3710, ECON*3740

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**ECON*4560 Advanced Topics in Finance U (3-0) [0.50]**
This course will examine selected advanced topics in finance, such as optimal capital structure under asymmetric information; theoretical and empirical analysis of mergers and acquisitions; asset pricing theory; pricing derivative securities; and financial econometrics.

Prerequisite(s): ECON*3560, ECON*3710, ECON*3770

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**ECON*4640 Applied Econometrics I F (3-0) [0.50]**
This course discusses the classical linear regression model and its extensions including generalized least squares and the theory and application of F tests. The maximum likelihood principle is introduced, as are alternative approaches to testing, e.g. LM, LR and Wald tests. Additional topics may be included at the instructor's discretion. Matrix algebra is used and proof of the Gauss-Markov theorem is included, but discussion of proofs is in general limited in order to allow substantial applications to data using statistical software such as TSP, SHAZAM, SAS, STATA.

Prerequisite(s): ECON*3740, ECON*3770

Equate(s): ECON*4740

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**ECON*4710 Advanced Topics in Microeconomics F (3-0) [0.50]**
An intensive study of the scope, methodology, and content of contemporary microeconomics; selected topics in partial and general equilibrium analysis.

Prerequisite(s): ECON*3710, ECON*3740

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**ECON*4720 Topics in Economic History U (3-0) [0.50]**
The use of economic theory to analyse the process of historical economic change.

Prerequisite(s): 12.50 credits including ECON*2310.

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**ECON*4750 Topics in Public Economics U (3-0) [0.50]**
This course examines selected topics related to the expenditure and taxation functions of government. Topics may include issues in public good theory such as the free rider problem, the problem of eliciting truthful revelation of preferences and the use of taxes as a corrective device for externalities. The course may also address optimal taxation as well as tax evasion. Throughout this course the trade-off between efficiency and equity is emphasized.

Prerequisite(s): ECON*3710, ECON*3770

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**ECON*4760 Topics in Monetary Economics U (3-0) [0.50]**
Selected topics in monetary economics such as theories of the demand for and supply of money, the nature and role of private banks and central banks, the transmission processes of monetary policy.

Prerequisite(s): ECON*3600, ECON*3710, ECON*3740

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**ECON*4780 Topics in Industrial Organization U (3-0) [0.50]**
Selected topics in the theoretical and empirical study of the organization and performance of firms and markets. Topics may include: strategic behaviour of firms such as actions to deter entry of rivals, pre-emptive choice of location and product quality, and research and development; the regulation of firms under uncertainty; econometric analysis of the use of market power; and modern advances in the theory of the firm.

Prerequisite(s): ECON*3530, ECON*3710, ECON*3740, ECON*3770

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Last Revision: October 18, 2005

2005-2006 University of Guelph Undergraduate Calendar
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON*4790</td>
<td>Topics in Labour Market Theory U (3-0) [0.50]</td>
<td></td>
<td>Selected topics in advanced labour market theory with emphasis on empirical evidence for the Canadian labour market.</td>
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<td>Prerequisite(s): ECON<em>3710, ECON</em>3740, ECON*3770</td>
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<tr>
<td>ECON*4800</td>
<td>Theory of Strategic Management U (3-0) [0.50]</td>
<td></td>
<td>This course is about the creation and maintenance of long-term vision for the corporation from the perspective of the general manager. It is concerned with both the determination of strategic direction and the management of the strategic process. ECON*4800 may not be counted as a 4000 level economics course for purposes of satisfying the minimum 4000 level economics course requirements in the B.A. Honours Economics or B.A. Management Economics programs.</td>
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<td>Prerequisite(s): ECON<em>3600, ECON</em>3740, ECON*3770</td>
</tr>
<tr>
<td>ECON*4810</td>
<td>Advanced Macroeconomic Theory W (3-0) [0.50]</td>
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<td>The theory of complex aggregate economic models; their assumptions, construction, and use in the analysis of macroeconomic activity.</td>
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<td>Prerequisite(s): ECON<em>3600, ECON</em>3740, ECON*3770</td>
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<tr>
<td>ECON*4830</td>
<td>Economic Development U (3-0) [0.50]</td>
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<td>A study of the theories, problems and policies of economic growth with special reference to underdeveloped countries.</td>
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<td>Prerequisite(s): ECON*2310</td>
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<tr>
<td>ECON*4840</td>
<td>Applied Econometrics II W (3-0) [0.50]</td>
<td></td>
<td>This is a continuation of ECON*4640 and deals with asymptotic theory, maximum likelihood estimation, instrumental variables, simultaneous equation models and selected topics such as models for limited dependent variables, models for panel data, ARCH models, units roots and error correction models. There will be applications to data using statistical software.</td>
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<td>Prerequisite(s): ECON*4640</td>
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<tr>
<td>ECON*4850</td>
<td>Seminar in Current Economic Problems U (3-0) [0.50]</td>
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<td>Examination in a seminar setting of selected contemporary economic problems.</td>
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<td>Prerequisite(s): ECON<em>3600, ECON</em>3710, ECON*3740, or instructor consent</td>
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<tr>
<td>ECON*4870</td>
<td>Mathematical Economics: Dynamics F (3-0) [0.50]</td>
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<td>The purpose of this course is to introduce the student to the techniques and application of dynamic analysis. The discussion concentrates on systems of differential equations, optimal control theory, etc.</td>
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<td>Prerequisite(s): ECON<em>3600, ECON</em>3710, ECON*3770</td>
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<tr>
<td>ECON*4880</td>
<td>Topics in International Economics U (3-0) [0.50]</td>
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<td>Selected topics involving the advanced analysis of the causes and effects of trade and financial flows and international factor movements.</td>
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<td>Prerequisite(s): ECON<em>3600, ECON</em>3710, or instructor consent</td>
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<tr>
<td>ECON*4890</td>
<td>History of Economic Thought U (3-0) [0.50]</td>
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<td>A study of the development of economic theory, the tools of economic analysis, and the evaluation of economics as a science, together with an analysis of the circumstances affecting this development.</td>
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<td>Prerequisite(s): ECON<em>2310, ECON</em>2410</td>
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<tr>
<td>ECON*4900</td>
<td>Special Study in Economics S,F,W (3-0) [0.50]</td>
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<td>The special study option is designed to provide senior undergraduate students with an opportunity to pursue an independent course of study. The subject matter will be related to regular 4000 level courses. Students will be required to submit a major paper/report on the subject matter studied. Formal agreement between the student and instructor of the course is required as well as the approval of the department chair or designate. One only of ECON<em>4900/ECON</em>4910 may count as one of the required minimum number of 4000 level economics courses in the B.A. programs.</td>
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<td>Prerequisite(s): ECON<em>3600, ECON</em>3710, ECON<em>3740, ECON</em>4910, or instructor consent</td>
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<tr>
<td>ECON*4910</td>
<td>Special Study in Economics S,F,W (3-0) [0.50]</td>
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<td>Same description as for ECON*4900.</td>
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<tr>
<td>ECON*4930</td>
<td>Environmental Economics U (3-0) [0.50]</td>
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<td>An advanced treatment of the interrelationship between economic activities and the state of the natural environment from the economists' point of view.</td>
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<td>Prerequisite(s): ECON<em>2410, ECON</em>3710</td>
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<tr>
<td>ECON*4940</td>
<td>Model Building and Economic Analysis U (3-0) [0.50]</td>
<td></td>
<td>Progress in economic theory is increasingly made by studying the properties of small artificial economies or competitive general equilibrium models. This course examines the construction of competitive general equilibrium models and outlines the computational techniques required to solve them. These models may be used to study a range of subject areas, including topics in macroeconomics with a particular emphasis on business cycle analysis or the economics of the environment. The subject areas will vary from year to year and are chosen at the instructor's discretion.</td>
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<td>Prerequisite(s): ECON*3740</td>
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<tr>
<td>ECON*4950</td>
<td>Applied Economics Research Project W (3-0) [0.50]</td>
<td></td>
<td>Students plan, develop and conduct a research project under individual faculty supervision and structured co-ordination. The supervisor is a faculty member with expertise in the area being investigated. The co-ordinator is a faculty member who leads group sessions on research project objectives, expectations, potential topics, data sources, available software and other relevant issues. Students will also present proposals, progress reports and final products in this group setting.</td>
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<td>Prerequisite(s): ECON<em>3770, ECON</em>4640</td>
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</table>


**Engineering**

School of Engineering.

Students who are not registered in the B.Sc. (Eng.) degree program may take no more than 3.00 Engineering (ENGG*XXX) credits.

Some ENGG* courses have priority access restrictions. Enrolment in these courses is restricted to students registered in B.Sc. (Eng.) Degree program. All other students will require a waiver form to be signed by the B.Sc. (Eng.) Program Counsellor.

**ENGG*1100 Engineering and Design I F (2-4) [0.75]**

Introduction to engineering and design by means of selected problems. Students integrate basic science, mathematics, and complementary studies to develop and communicate engineering solutions to specific needs using graphical, oral, and written means. Application of computer-aided drafting, spreadsheets, and other tools to simple engineering design problems. The practice of professional engineering and the role of ethics in engineering.

**Restricion(s):** Registration in the Engineering Program

**ENGG*1210 Engineering Mechanics I W (3-1) [0.50]**

Fundamental principles of Newtonian mechanics; statics of particles in 2-D space; equilibrium of rigid bodies in 2-D; distributed forces; friction, linear and angular momentum of rigid bodies; conservation of energy; principles of impulse and momentum; and, plane motion of rigid bodies.

**Prerequisite(s):** OAC Algebra and Geometry

**ENGG*1500 Engineering Analysis W (3-1) [0.50]**

Engineering applications of Matrix algebra, vector spaces and computer techniques to solve linear systems. Linear transformations, eigenvalues and eigenvectors, diagonalization and their applications in engineering problems. Complex variable algebra, multi-variable functions, partial derivatives, and maxima and minima.

**Co-requisite(s):** ENGG*1210, MATH*1210

**Restriction(s):** MATH*1250

**ENGG*2100 Engineering and Design II F (2-4) [0.75]**

Progression in engineering design skills with particular emphasis on computer usage in design, oral communication of solutions and team skills. Computer usage in design will include advanced CAD/CAM/CAE tools, structured programming and database management software. An introduction to safety in engineering practice and design. An introduction to the concept of sustainable development.

**Prerequisite(s):** ENGG*1100, ENGG*1210, ENGG*1500, MATH*1200, PHYS*1130

**ENGG*2120 Material Science F (3-2) [0.50]**

Study of the mechanical, electrical, magnetic, optical and thermal properties of solids. Atomic order and disorder in solids, single-phase metals, and multiphase materials (their equilibria and micro-structure) are examined as a basis for understanding the causes of material properties. Intertwoven throughout the course is an introduction to materials selection and design considerations.

**Prerequisite(s):** CHEM*1040, PHYS*1130

**ENGG*2160 Engineering Mechanics II F (3-1) [0.50]**

Fundamental principles of the mechanics of deformable materials; stress and strain; Mohr's circle for transformation of stress and strain; deflection under load; design of beams; shafts; columns and pressure vessels; failure theory and design.

**Prerequisite(s):** ENGG*1210, ENGG*1500, 0.50 credits in calculus

**ENGG*2230 Fluid Mechanics W (3-2) [0.50]**

Analysis of steady ideal and viscous fluid flow systems using the Continuity, Bernoulli and Momentum equations. Boundary layer theory is treated in terms of viscous and pressure drag, lift and its importance in heat and mass transfer. Dimensional analysis and dynamic similarity are studied to provide an understanding of flow systems analysis and modeling. Introduction to pipe flow and open channel flow.

**Prerequisite(s):** ENGG*1210, MATH*1210

**ENGG*2400 Engineering Systems Analysis F (3-1) [0.50]**

Analytical description and modeling of engineering systems such as mechanical, electrical, thermal, hydraulic biological and environmental systems. Applications of multivariable calculus, linear algebra and differential equations to stimulate and analyse such systems.

**Prerequisite(s):** ENGG*1210, ENGG*1500, MATH*1200, MATH*1210, PHYS*1130

**Co-requisite(s):** MATH*2270

**ENGG*2410 Digital Systems Design Using Descriptive Languages F (3-2) [0.50]**

Review of Boolean algebra, truth tables, Karnaugh maps. Design, synthesis and realization of combinational circuits. Design, synthesis and realization of sequential circuits. VHDL- structural modeling, data flow modeling, synchronous & asynchronous behavior descriptions, algorithmic modeling. Designing with PLDs. Digital design with SM charts. Designing with FPGAs and complex programmable logic devices. Hardware testing and design for testability. Hierarchy in large designs. The course will primarily be concerned with the design of multi-input, multi-output digital controllers which provide the central control signals that orchestrate the collection of hardware devices (from SSI to VLSI) found in a digital system. An introduction to FPGA-based, as well as microprocessor-based digital systems design will be given. Design examples will include systems such as UART, microcontroller CPU, ALU and data acquisition system.

**Prerequisite(s):** ( CIS*1650 or CIS*1500), CIS*1900, PHYS*1130

**ENGG*2450 Network Theory W (3-1) [0.50]**

Electrical quantities; electrical circuit elements and their characteristics; exponentials, sinusoids and phasors applied to electrical circuits; s-plane representation and pole-zero concepts; steady-state a.c. circuits; general network analysis; magnetic quantities and circuits; demonstration of principles as applied in several engineering fields.

**Prerequisite(s):** ENGG*2400, PHYS*1130

**ENGG*2550 Water Management W (3-0) [0.50]**

The influence of fundamental engineering and hydrologic principles on the choices available for management of water on a watershed basis is demonstrated for representative techniques used in management for water supply, irrigation, flood control, drainage and water pollution control. Selected problems are studies to reveal the technical, environmental, legal, jurisdiction, political, economic and social aspects of water management decisions.

**Prerequisite(s):** (CHEM*1040 or CHEM*1310), GEOG*2000

**ENGG*2560 Environmental Engineering Systems W (3-2) [0.50]**

Analysis techniques for natural and engineered systems including chemical, physical and biological processes. Mass balance analysis for steady state and unsteady state situations. Analysis under both equilibrium and non-equilibrium conditions. Reactor types including batch, plug-flow, CSTR. Noise pollution, control and prevention.

**Prerequisite(s):** CHEM*1050, MATH*2270

**ENGG*2660 Biological Engineering Systems I W (3-1) [0.50]**

Mathematical description and identification of biological systems; through mass and energy balances; reactions in biological systems; biomedical, food, and bio-processing applications.

**Prerequisite(s):** ENGG*2400, MATH*2270, MICR*1020

**Co-requisite(s):** BIOC*2580

**ENGG*3100 Engineering and Design III W (3-2) [0.75]**

This course combines the knowledge gained in the advanced engineering and basic science courses with the design skills taught in ENGG*1100 and ENGG*2100 in solving open-ended problems. These problems are related to the student's major. Additional design tools are presented, including model simulation, sensitivity analysis, linear programming, knowledge-based systems and computer programming. Complementing these tools are discussions on writing and public speaking techniques, codes, safety issues, environmental assessment and professional management. These topics are taught with the consideration of available resources and cost.

**Prerequisite(s):** Registration in the B.Sc.(Eng.) program, ENGG*2100, ENGG*2230, ENGG*2400, ENGG*3260 and, for the specific majors: BIOE, (ENGG*2150 or ENGG*2160), ENGG*2660, ESC, ENGG*3390; ENV, (ENGG*3180 or ENGG*3360 ), ENGG*3590, ENGG*3650, WRE, ENGG*3590, ENGG*3650

**Restriction(s):** Students must have a minimum cumulative average of 60% or higher in ALL ENGG courses.

**ENGG*3150 Engineering Biomechanics W (3-2) [0.50]**

Basic concepts of biological material structure, properties, adaptation and remodeling; viscoelasticity in biological materials and techniques for modeling viscoelastic material behaviour; 2-dimensional and 3-dimensional joint kinematic analysis techniques; muscle mechanics and optimization techniques; current techniques in laboratory instrumentation and biomedical applications.

**Prerequisite(s):** ENGG*2160

**Restriction(s):** ENGG*2150

**ENGG*3160 Biological Engineering Systems II F (3-2) [0.50]**

Mass transfer in biological systems: concepts; gas-liquid mass transfer; membrane transport processes; and heterogeneous reactions. Applications may include fermenter aeration, tissue perfusion, mass transfer limitations in biofilms, microbial flocs and solid tumours, protein recovery and drug delivery.

**Prerequisite(s):** ENGG*2230, ENGG*2660
ENGG*3170 Biomaterials F (3-2) [0.50]
Physical properties of natural and synthetic (e.g. stainless steel, polymers) materials used in biological engineering applications. Topics will include microstructure and mechanical properties of typical biomaterials, quantification of advanced material properties and behaviours, fabrication, compatibility, biodegradation and mechanical failure. Typical applications will include processing of biomaterials as well as equipment and implant design.
Prerequisite(s): ENGG*2120

ENGG*3180 Air Quality F (3-2) [0.50]
Prerequisite(s): ENGG*2230, (ENGG*2560 or ENGG*2660)
Co-requisite(s): ENGG*3260
Restriction(s): ENGG*3360

ENGG*3240 Engineering Economics F (3-0) [0.50]
Principles of project evaluation; analysis of capital and operating costs of engineering alternatives, benefit-cost ratio; break-even studies, evaluations recognizing risk, replacement and retirement of assets; tax considerations, influence of sources of funds.
Prerequisite(s): MATH*1210, MATH*2270, ENGG*2400, ENGG*2450
Restriction(s): Registration in the Engineering program.

ENGG*3260 Thermodynamics F (3-1) [0.50]
Macroscopic thermodynamics and its applications to engineering analysis and design. First and second laws and applications to closed and flow systems, both with and without reaction; properties of pure substances and solutions; introduction to phase and reaction equilibrium. Applications include gas-vapour systems (psychrometrics and beyond), power and refrigeration cycles, raoults and henry law solution behaviour, flame temperature calculations, semiconductor device fabrication.
Prerequisite(s): ENGG*2230, ENGG*2400, ENGG*2450, CHEM*1040, MATH*2270

ENGG*3340 Geographic Information Systems in Environmental Engineering F (3-0) [0.50]
Geographical information system structure and functions. Data structuring and application program development. Data input, display and analysis. Applications in environmental engineering and natural resource development/management. Students will be able to use a GIS software package to build geographical information systems.
Prerequisite(s): (CIS*1500 or CIS*1600 ), (1 of MATH*1000, MATH*1080, MATH*1200)

ENGG*3380 Computerized Organization and Design F (3-2) [0.50]
Detailed examination of modern computer organization and techniques for microprocessor architecture design. Topics include - CPU design; instruction set design, addressing modes, operands; data flow design, internal bus structure, data flow signals, registers; control sequence design; hardwired control, decoding, microprogramming; architecture classes: CISC, RISC, and DSP; Memory organization; performance. Students must complete a term project that includes design, implementation, and demonstration of a CPU using a hardware descriptive language like VHDL.
Prerequisite(s): ENGG*2410

ENGG*3390 Signal Processing F (3-2) [0.50]
This course will establish the fundamental analysis and design techniques for signal processing systems. Topics covered include: definition and properties of linear time-invariant systems; impulse response and convolution; continuous-time Laplace transform, Fourier series, Fourier transform; discrete-time Fourier transform, discrete-time Fourier series, fast Fourier transform, Z transform; complex frequency response; filter analysis and design for both continuous and discrete time systems. Students will be able to design continuous-time filters and both design and implement discrete-time digital filters using computer-based tools.
Prerequisite(s): ENGG*2400

ENGG*3410 Systems and Control Theory W (3-2) [0.50]
Modeling, performance analysis and control with potential application to engineering, physical and biological systems. Topics include modeling in time, Laplace and frequency domains. Performance and stability by methods of Hurwitz, Routh, Bode, and Nyquist. Control by ON/OFF and PID Controllers.
Prerequisite(s): ENGG*2400, MATH*2270
Co-requisite(s): ENGG*2450

ENGG*3430 Heat and Mass Transfer W (3-1) [0.50]
Analysis of steady and transient thermal systems involving heat transfer by conduction, convection and radiation and of mass transfer by molecular diffusion and convection. Other topics include the thermal analysis of heat exchangers and heat transfer systems involving a change of state.
Prerequisite(s): ENGG*2230, ENGG*3260, MATH*2270

ENGG*3450 Electrical Devices F (3-2) [0.50]
Semiconductors materials, Silicon, Germanium and other semi-conductors material. Doping and effects of extrinsic material introduction, Conduction in metals and semiconductors, electrical and thermal characteristics of diodes and transistors; principles of modern electronic devices and their applications in circuits; diodes; bipolar and field effect transistors; circuit integration; operational amplifiers; logic gates.
Prerequisite(s): ENGG*2450

ENGG*3470 Mass Transfer Operations W (3-2) [0.50]
Application of mass transfer principles in the natural and engineered systems. Mass transport in the multi-media fate of contaminants in and between air, water and land. Design and analysis of separation processes for emission and pollutant prevention.
Prerequisite(s): ENGG*2230, ENGG*3260, MATH*2270
Co-requisite(s): ENGG*3430

ENGG*3490 Introduction to Mechatronic Systems Design W (3-2) [0.75]
This course covers the design of mechatronic systems, which are synergistic, combinations of components and controls drawn from mechanical engineering, electronics, control engineering, and computer science. The course emphasizes the integration of these areas through the design process employing the two skills of (1) modeling, analysis, control design, and computer simulation of dynamic systems, and (2) experimental validation of models, analysis and the understanding of the key issues of hardware implementation. The two skills are developed though assignments emphasizing analytical analysis with complementary laboratory exercises. The material covered includes mechatronic system design; a review of kinematics, electronics, modeling, simulation, signals and control; control architectures; sensors including vision; and actuators.
Prerequisite(s): ENGG*3450
Co-requisite(s): ENGG*3410
Restriction(s): ENGG*3400

ENGG*3590 Water Quality (3-3) [0.50]
This course builds on the student's experience in chemistry, biology, physics and fluid mechanics, and provides an engineering perspective on: (i) standard methods of water quality analysis for physical, chemical and biological characteristics of water; (ii) significance and interpretation of analytical results, (iii) modeling of water quality in natural systems and (iv) introduction to engineered water and wastewater treatment systems.
Prerequisite(s): ENGG*2230, ENGG*2560, (BIOL*1040 or MICR*1020), STAT*2120

ENGG*3640 Microcomputer Interfacing F (3-2) [0.50]
Interfacing microcomputers to external equipment. Topics include peripheral devices, hardware interfaces, device driver software and real time programming. Advanced programming: debugging of embedded systems, data structures and subroutine calls, high-level system programming. Interrupts and resets, real time events, signal generation and timing measurements. Synchronous and asynchronous serial communication. Parallel I/O ports and synchronization techniques. I/O interfacing, microcomputer busses, memory interfacing and direct memory access (DMA). Data acquisition topics include signal conditioning analog to digital conversion and digital signal processing.
Prerequisite(s): ENGG*2410
Co-requisite(s): ENGG*3390
Restriction(s): ENGG*4640

ENGG*3650 Hydrology F (3-1) [0.50]
Quantitative study of natural water circulation systems with emphasis on basic physical principles and interrelationships among major processes; characteristics of mass and energy; inputs to and output from watersheds; factors governing precipitation occurrence, evaporation rates, soil-water storage changes, groundwater recharge and discharge; run-off generation; methods of streamflow analysis; mathematical modeling.
Prerequisite(s): (ENGG*2230 or MET*2030), (MATH*1210 or MATH*2080), (STAT*2120 or STAT*2040), and competency in computing

ENGG*3670 Soil Mechanics F (3-2) [0.50]
Relations of soil physical and chemical properties to strength; soil water systems and interactive forces. Visco-elastic property and pressure-volume relationships of soil systems. Stress-strain characteristics of soil under dynamic loads. Application of engineering problems. Laboratory and field investigation methods.
Prerequisite(s): ENGG*2120, ENGG*2230
ENGG*3830 Bio-Process Engineering Design F (3-1) [0.50]
Application of engineering principles to the processing of biological products in the biological and food industry. Analysis and design of unit processes such as sedimentation, centrifugation, filtration, milling and mixing involving rheology and non-Newtonian fluid dynamics of biological materials. Analysis of heat and mass balances for drying evaporation, distillation and extraction.
Prerequisite(s): ENGG*2230, ENGG*2660
Co-requisite(s): ENGG*3260

ENGG*4260 Water and Wastewater Treatment Design W (3-2) [0.75]
Application of design principles for a variety of water purification systems, including drinking water, municipal wastewater, industrial wastewater and agricultural wastewater. This involves the design of physical, chemical and biological unit operations, and optimization of the optimum combination to satisfy the given design constraints and criteria. The optimum designs integrate engineering science, basic science, economics, and occupational health and safety for the workers and the public.
Prerequisite(s): ENGG*3100, ENGG*3590

ENGG*4280 Digital Process Control Design W (3-2) [0.75]
Design, analysis synthesis and simulation of process control and automation systems. Automation hardware, process compensation techniques and P.I.D. controllers, design and dynamics of final control elements, computer control and the microprocessor.
Prerequisite(s): ENGG*3410

ENGG*4300 Food Processing Engineering Design F (3-2) [0.75]
Formulation of mathematical models to describe food processing operations and the response of foods to such operations. Process evaluation, development and computer-aided design of operations such as thermal processes and food freezing. The influence of water activity and structure on the enzymatic, cellular, organic and structural systems of foods. The properties of powders and particulate foods and mechanical operations with solid foods.
Prerequisite(s): ENGG*3260, ENGG*3830

ENGG*4330 Air Pollution Control F (3-2) [0.75]
Analysis and design of atmospheric pollution control techniques. Techniques considered include both in-process solutions as well as conventional end-of-pipe treatments. Pollutants covered include gaseous, particulate, metals and trace organics.
Prerequisite(s): ENGG*3180, ENGG*3260

ENGG*4340 Solid and Hazardous Waste Management F (3-2) [0.50]
Prerequisite(s): ENGG*2560 or ENGG*2660

ENGG*4360 Soil-Water Conservation Systems Design F (3-2) [0.75]
Properties of soils and land use governing the occurrence and magnitude of overland flow, soil erosion, infiltration, percolation of soil water, and variations in soil water storage. Design of soil and water management systems and structures to control soil erosion and protect water quality for environmentally and economically sustainable land use planning. Design of surface and subsurface drainage system for rural land. Design of sprinkler and trickle irrigation systems.
Prerequisite(s): ENGG*2230, ENGG*3650, ENGG*3670

ENGG*4370 Urban Water Systems Design F (3-2) [0.75]
Estimation of water quantity and quality needed for urban water supply and drainage. Design of water supply, pumping systems, pipe networks and distributed storage reservoirs from analysis of steady and transient, pressurized and free surface flow. Rates of generation of flows and pollutants to sanitary and storm sewers, design of buried pipe and open channel drainage systems with structures for flow and pollution control. Modeling of water systems for sustainable urban development.
Prerequisite(s): ENGG*2230, ENGG*3650

ENGG*4380 Bioreactor Design F (3-2) [0.75]
Modeling and design of batch and continuous bioreactors based on biological growth kinetics and mass balances. Gas-liquid mass transfer for aeration and agitation instrumentation and control.
Prerequisite(s): ENGG*3160

ENGG*4390 Bio-instrumentation Design F (3-2) [0.75]
Theory and selection criteria of devices used in measurements in biological systems; design of complete measurement systems including transducers, signal conditioning and recording components; error analysis. Differences between measurements in biological and physical systems.
Prerequisite(s): ENGG*3450

ENGG*4400 Biomechanical Engineering Design F (3-2) [0.75]
Concept development, design, modeling, manufacture and testing of medical implants and tools. This course will investigate the biomechanical factors influencing design, regulatory issues, current development trends, and the possible future of medical implant technology.
Prerequisite(s): ENGG*2120, ENGG*3170
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<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Description</th>
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<tr>
<td>ENGG*4430</td>
<td>Neuro-Fuzzy and Soft Computing Systems W (3-0) [0.50]</td>
<td>Introduction to Fuzzy systems; Fuzzy Sets; Fuzzy Rules and Fuzzy Reasoning; Fuzzy Inference Systems; Fuzzy Control; Introduction to Neural and Automata Networks; Neural Network Paradigms; Supervised Learning Neural Networks; Learning from Reinforcement, Unsupervised Learning and Other Neural Networks; Neurocontrol; System Identification; Controller Training, Robust Neurocontrol; Adaptive Neuro-Fuzzy Inference Systems, Coactive Neuro-Fuzzy Modeling; Reinforcement Learning Control, Gradient-Free Optimization, Feedback Linearization and Sliding Control; Applications: Quality Assurance, Decision Aid Systems, Automatic Character Recognition, Inverse Kinematics Problems, Automobile MPG (Miles Per Gallon) Prediction, System Identification, Channel Equalization, Adaptive Noise Cancellation, Process Control.</td>
<td><strong>Prerequisite(s):</strong> ENGG<em>3410  <strong>Co-requisite(s):</strong> ENGG</em>4280</td>
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<td>ENGG*4450</td>
<td>Large-Scale Software Architecture Engineering F (3-2) [0.50]</td>
<td>This course introduces the students to the analysis, synthesis and design of large-scale software systems at the architectural level. This is in contrast to the algorithmic and data structure viewpoint of most software systems. Large-scale software systems are complex, execute on many processors, under different operating systems, use a particular or many language(s) of implementation, and typically rely on system layers, network connectivity, messaging and data management and hardware interfacing. The material covered includes architectural styles, case studies, architectural design techniques, formal models, specifications and architectural design tools. The laboratory sessions will expose the students to analyzing and redesigning an existing large-scale software system.</td>
<td><strong>Prerequisite(s):</strong> CIS<em>2420, ENGG</em>2100</td>
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<td>ENGG*4460</td>
<td>Robotic Systems F (3-3) [0.50]</td>
<td>This course covers robot technology fundamentals, mathematical representation of kinematics, planning and execution of robot trajectories, introduction to robot languages, programming of robotic systems, different application domains for robots (e.g. assembly, manufacturing, medical, services, etc.), and robot sensors. The goal of this course is to provide students with a comprehensive background, approaches and skills to apply robotics technology to real world engineering applications and problems. (First offering Fall 2005.)</td>
<td><strong>Prerequisite(s):</strong> ENGG<em>1500, ENGG</em>2400</td>
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<td>ENGG*4660</td>
<td>Medical Image Processing W (3-2) [0.50]</td>
<td>This course covers the fundamentals of medical imaging from both the processing of digital images and the physics of image formation. Image processing topics covered include: fundamentals of resolution and quantization; linear systems as applied to multi-dimensional continuous and discrete systems including the relationship between the point spread functions and modulation transfer function; point operations such as contrast enhancement, histogram equalization, and H and D curves, geometric operations for distortion correction, including interpolation methods; linear filtering in both the spatial and spatial-frequency domains; and image restoration and inverse filtering. The physics of the following imaging modalities with emphasis on the parameters which effect image quality will be covered: x-ray radiology, MRI, ultrasound, and nuclear medicine. (First offering Winter 2006.)</td>
<td><strong>Prerequisite(s):</strong> ENGG*3390</td>
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**English**

School of English and Theatre Studies.

1. ENGL*1080 or ENGL*1200 is prerequisite to all other courses in English, with the exception of ENGL*2840, ENGL*2860 and ENGL*2880.

2. ENGL*2080 is prerequisite to ENGL*2120, ENGL*2130, ENGL*3940, ENGL*3960. Students in Semester 3 or above may take ENGL*2080 concurrently with ENGL*2120 or ENGL*2130 with permission from the instructor.

3. ENGL*1080 and ENGL*2080 provide a strong foundation for English studies at the University level, particularly for students intending to major or minor in English. These linked courses expose students not only to a broad range of texts from different countries and historical periods but also to some of the exciting developments in the discipline.

4. Honours major students are required to take the seminar courses ENGL*2120, ENGL*2130, ENGL*3940, ENGL*3960, preferably in their 3rd, 4th, 5th and 6th semesters.

5. Honours major students are required to take two 4000-level seminars, preferably in their 7th and 8th semesters. The prerequisites for the 4000-level seminars are ENGL*2080 plus one of ENGL*2120, ENGL*2130 plus one of ENGL*3940, ENGL*3960.

6. Honours minor students are required to take the seminar course ENGL*2120 and one of ENGL*2130, ENGL*3940, ENGL*3960, preferably in their 3rd to 6th semester.

7. Many English lecture courses are offered on alternate years only and many English seminars have variable content. For more information, students should consult the School's home page at http://www.uoguelph.ca/english/

8. Many English lecture courses are reading-intensive while seminar courses are writing and presentation-intensive. Honours major students are advised to take two lectures and one seminar per semester beginning in their 3rd semester.

9. WRITING- AND PRESENTATION-INTENSIVE: Seminars emphasize written and oral work to help students develop the critical reading and writing skills essential to their learning throughout the curriculum.

10. READING-INTENSIVE: Lectures emphasize breadth of reading, contexts, and comparisons, to help students develop the knowledge base essential to their understanding of the field. In order to allow essay-writing to be concentrated in seminars, assignments in lecture courses will not predominantly take the traditional essay form but a range of other formats.

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**ENGL*1080 Literature in English I: Reading the Past F (2-1) [0.50]**

This course introduces a range of historical and national writings in prose, poetry, and drama. Lectures address, chronologically, works by selected authors from the middle ages to mid-twentieth century, the periods in which these works were produced, and some of the ways in which they have been read. Workshops focus on the development of writing and analytical skills. Reading-and-writing-intensive course.

**Prerequisite(s):** ENGL*1060

**Equate(s):** ENGL*1410

**Restriction(s):** ENGL*1080, ENGL*1200

**ENGL*1200 Reading the Contemporary World F,W (2-1) [0.50]**

An introduction to the reading of literary texts and persuasive forms of writing, bringing to the foreground the links between language and contemporary social and political issues. Course material will represent a range of national origins and issues involving gender, race, and class, and will illustrate the importance of figurative language, form and genre, and narrative point of view in learning to read critically. The course will also emphasize writing skills (grammar, organization of ideas, forms of written expression) through workshops and several short written assignments. Students planning to major in English must take ENGL*1080 but may also take ENGL*1200. (Also offered in Distance Education format.)

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**ENGL*1410 Major English Writers U (3-0) [0.50]**

This course offers an introduction to the study of literature through a chronological consideration of works by selected major authors from the Middle Ages to the 20th century, in relation to their social, intellectual and literary backgrounds. Instruction and practice in effective essay writing will be included. (Offered through distance education format only.)

**Prerequisite(s):** ENGL*1080, ENGL*1200

**Restriction(s):** ENGL*1080, ENGL*2080

**ENGL*2040 Latina/o Literature and Cultural Production: Intro F (3-0) [0.50]**

This survey course introduces students to the terms, methodologies, and debates that form the interdisciplinary critical practice of Latina/o Studies. The course takes a pan-Latina/o approach to the study of English-language and cultural production by various Latina/o groups in the U.S. Because different Latina/o groups have been concentrated in particular U.S. regions and cities, the approach allows students to study how Latina/o literature and art have shaped the politics and culture of different regions and cities.

**Prerequisite(s):** 1 of DRMA*1000, ENGL*1080, ENGL*1200

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**ENGL*2080 Literature in English II: Finding a Critical Voice W (1-2) [0.50]**

This course revisits the historical, national, and genre sweep of ENGL*1080 by conducting a range of specific, more in-depth studies of particular works (including some of the texts examined in ENGL*1080) in their historical moments. Seminars help students to develop a range of critical approaches through oral presentations and essay-writing.

**Prerequisite(s):** ENGL*1080

**Equate(s):** ENGL*2060

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**ENGL*2120 Seminar: Critical Practices F (3-0) [0.50]**

This course guides students through a range of critical approaches and explores their implications for readings of a limited number of literary texts. The seminar's main areas of concentration are: (1) close reading, centering on the way a particular poem, work of fiction, or play works in its details and overall structure; (2) critical approaches and methodologies; (3) critical writing and discussion. (Choices of approaches and texts will be determined by individual instructors.) Students in semester 3 or above may take ENGL*2080 and ENGL*2120/ENGL*2130 concurrently with permission of the instructor.

**Writing- and presentation-intensive course.**

**Prerequisite(s):** ENGL*2080

**Restriction(s):** ENGL*2111/2

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**ENGL*2130 Seminar: Literature and Social Change F,W (3-0) [0.50]**

This course explores the social and cultural work that literary texts perform. Seminars will illuminate such categories as gender, sexuality, nation, race, ethnicity, and class; particular ways in which they are written into a limited number of literary works; and some of the critical debates surrounding our interpretations of those processes. (Choice of focus and texts to be determined by individual instructors.) Students in semester 3 or above may take ENGL*2080 and ENGL*2120/ENGL*2130 concurrently with permission of the instructor.

**Writing- and presentation-intensive course.**

**Prerequisite(s):** ENGL*2080

**Restriction(s):** ENGL*2111/2

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**ENGL*2200 Postcolonial Literatures F (3-0) [0.50]**

This course introduces significant issues, perspectives, and voices within the study of the postcolonial literatures in English. The course may include literature from Africa, Australia, Canada, the Caribbean, India and the Pacific. Reading-intensive course.

**Prerequisite(s):** ENGL*1080 or ENGL*1200

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**ENGL*2550 North American Native Literatures W (3-0) [0.50]**

This course explores selected issues, perspectives, and voices within the study of Native literatures and their contexts in North America. One purpose of the course is to raise questions about the meaning of the U.S. - Canadian border for Native writers.

**Reading-intensive course.**

**Prerequisite(s):** ENGL*1080 or ENGL*1200

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**ENGL*2640 Culture, Location, Identity: Minoritized Literatures in Canada and Beyond F (3-0) [0.50]**

This course will open up debates around emergent issues, perspectives, and voices in the literatures of minoritized cultures particularly within the North American context. Questions about the meanings of various borders for understanding Canadian negotiations of identity, culture, and location will remain a consistent feature of this variable content course. Reading-intensive course. (Also offered in Distance Education format.)

**Prerequisite(s):** ENGL*1080 or ENGL*1200

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**ENGL*2740 Children's Literature F,W (3-0) [0.50]**

An exploration of the varieties of literary written for children and of the literary and psychological values contained therein. Third semester standing is required for admission.

**Prerequisite(s):** ENGL*1080 or ENGL*1200

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**ENGL*2840 Literature and Aging W (3-0) [0.50]**

This course examines the ways in which literary texts represent old age and aging. Students will be alerted to the depth and complexity of insight which imaginative writers bring to the concerns of gerontology. (Offered in odd-numbered years.)

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**ENGL*2860 Science Fiction F (3-0) [0.50]**

A survey of science fiction dealing with the origins of the form and examining the varying modes and topics. Some effort will be made to evaluate the directions in which science fiction is developing and to consider its merit as literature. (Offered in odd-numbered years.)

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**ENGL*2880 Women in Literature W (3-0) [0.50]**

The course will involve the study and discussion of poems, stories, novels and plays by or about women.
ENGL*2920 Creative Writing: Fiction U (3-0) [0.50]
An introduction to creative writing through practical experiment, discussion, and the technical examination of models. Since admission to the course depends on the approval of the instructor, students must submit examples of their work to the instructor prior to registration. This course will be offered annually in either Fall or Winter. Check with the School.
Prerequisite(s): ENGL*1080 or ENGL*1200
Restriction(s): Instructor consent required.

ENGL*2940 Creative Writing: Poetry U (3-0) [0.50]
As for ENGL*2920. (Note especially that students must submit examples of their work to the instructor prior to registration.) This course will be offered annually in either Fall or Winter. Check with the School.
Restriction(s): Instructor consent required.

ENGL*3020 Shakespearean Contexts F (3-0) [0.50]
A study of a selection of Shakespeare's plays and poems in conjunction with a wide range of other texts. These may include, at the instructor's choice, 'source' narratives, subsequent adaptations, and plays and poems by predecessors or contemporaries, as well as other writings that shed light upon discursive contexts, performance practices, authorial and playhouse revision, issues of gender and subjectivity, and the reception of these plays by early modern audiences and readers. Reading-intensive course. (Offered in even-numbered years.)
Prerequisite(s): ENGL*1080 or ENGL*1200

ENGL*3040 U.S. Latina/o Literature F (3-0) [0.50]
This course focuses on an English-language literature of a particular Latina/o community (e.g. Chicana/os, Cuban Americans, Puerto Ricans) in the United States. Students will be introduced to theoretical approaches and wide range of genres, including narrative fiction, autobiography, literary journalism, and poetry. Reading-intensive course. (Offered in even-numbered years.)
Prerequisite(s): 1 of DRMA*1000, ENGL*1080, ENGL*1200, ENGL*2040

ENGL*3080 History of the English Language W (3-0) [0.50]
This course introduces the key historical developments of the English language and the primary tools for the study of language. Topics to be discussed may include: the origins of and precursors to the English language; the phonology, lexicon, and grammar of English; the persistence of language change; the historical factors that affect language change; the origins and implications of language variety; the formation of prestige dialects; and the current state of the English language in Canada and the world. Reading-intensive course. (Offered in even-numbered years.)
Prerequisite(s): ENGL*1080 or ENGL*1200

ENGL*3120 Shakespearean Receptions F (3-0) [0.50]
The course will examine a selection of Shakespeare's plays and poems in the light of contemporary reassessments of his place in the canon. For purposes of comparison, plays by contemporaries of Shakespeare may also be studied along with adaptations of Shakespeare chosen from a number of different historical contexts. Close readings of these texts will be organized around such topics as Shakespearean adaptations, constructions of gender and subjectivity, Shakespeare and canon-formation, Shakespeare and critical theory, the politics of Shakespearean interpretation, Shakespeare in contemporary media culture, and changing performance practices. Reading-intensive course. (Offered in odd-numbered years.)
Prerequisite(s): ENGL*1080 or ENGL*1200

ENGL*3170 Elizabethan Literary Culture: Chastity and Power W (3-0) [0.50]
This course examines the literacy culture associated with Elizabeth I. Issues, including gender and sexuality, power, and religion, will be explored through a wide range of sixteenth- and early-seventeenth century poems (these will be chosen from such writers as Skelton, Wyatt, Surrey, Mary Stuart, the Sidneys, Spenser, Marlowe, Shakespeare, Raleigh, Aemilia Lanyer, Mary Wroth, Elizabeth I, Jonson, Donne, and Herbert). Reading-intensive course. (Offered in odd-numbered years.)
Prerequisite(s): ENGL*1080 or ENGL*1200

ENGL*3180 Colonial Encounters: Nation and Discovery W (3-0) [0.50]
This course examines the intimate connections between poetic and political realms in the colonial literature of New World and English poets. The texts examined include such works as Shakespeare's Tempest,坡, and Marston's Eastward Ho, parts of Spenser's Faerie Queene, Marvell's "Bermudas", and Behn's Oroonoko: or the Royal Slave. Key intertexts to these writings will be studied, along with relevant aspects of Postcolonial theory. Reading-intensive course. (Offered in odd-numbered years.)
Prerequisite(s): ENGL*1080 or ENGL*1200

ENGL*3190 Poetics and Politics in Early Modern England F (3-0) [0.50]
This course explores the intimate connections between poetics and politics in Elizabethan literature. The texts to be studied may include plays and poems, as well as essays, political, historical, and theological writings, and works of prose fiction. Close readings of these texts will focus on such issues as kingship, transgression, rhetoric, and the relation between political subjection and literary subjectivity. The course will establish connections between early modern notions of power and its manipulation, and contemporary critical and political discourses in which similar issues are at stake. A wide range of materials chosen from such authors as More, Ascham, Castiglione, Montaigne, Ariosto, Sidney, Puttenham, James I, Nash, Fennon, Bacon, Lyly, Marston, Greene, and Lodge will be examined by way of close readings. Reading-intensive course. (Offered in odd-numbered years.)
Prerequisite(s): ENGL*1080 or ENGL*1200

ENGL*3220 Representing Britain: 18th- & 19th- Century Literature F (3-0) [0.50]
This course explores selected topics in the interrelation of literature and politics from the late eighteenth to the nineteenth century in Britain. Areas of focus may include: the literature of civil war, constitutionalism and revolution; satire and society; writings emerging from sufferage reform and agitation, the colonization of Ireland, the construction of political subjectivity, political paranoia, conspiracy and sedition. Reading-intensive course. (Offered in odd-numbered years.)
Prerequisite(s): ENGL*1080 or ENGL*1200

ENGL*3230 Literary Culture and the English Civil War W (3-0) [0.50]
This course will examine key literary figures and texts in the period leading up to and including the English Civil War (1623-1660). Literary contributions to the political and religious struggles of the period will be studied in the light of a range of different approaches. Primary readings will be selected from among the works of such writers as Milton, Marvell, Charles I, Hobbes, Coppe, Winstanly, Everard, Katherine Philips, Jonson, Webster, Middleton, and Massinger. Reading-intensive course. (Offered in even-numbered years.)
Prerequisite(s): ENGL*1080 or ENGL*1200

ENGL*3260 Writing Gender & Family: 18th- and 19th- Century Literature W (3-0) [0.50]
This course will examine key literary figures and texts in the period leading up to and including the English Civil War (1623-1660). Literary contributions to the political and religious struggles of the period will be studied in the light of a range of different approaches. Primary readings will be selected from among the works of such writers as Milton, Marvell, Charles I, Hobbes, Coppe, Winstanly, Everard, Katherine Philips, Jonson, Webster, Middleton, and Massinger. Reading-intensive course. (Offered in odd-numbered years.)
Prerequisite(s): ENGL*1080 or ENGL*1200

ENGL*3280 Early English Literature U (3-0) [0.50]
This course will focus on the language, literature, and culture of Anglo-Saxon England (7th to 11th centuries). In addition to acquiring the rudiments of Old English and engaging in translation exercises with short passages from Anglo-Saxon texts, students will read a selection of texts in modern English translation; these will include Beowulf, the Battle of Maldon, elegies such as the Seafarer, riddling poems and religious poems. In reading these texts, which may be supplemented with intertexts from other northern European cultures, students will be encouraged to reflect on such issues as the processes by which early English culture affiliated itself to Judoa-Christian and Hellenic traditions. Reading-intensive course. (Offered in alternate years.)
Prerequisite(s): ENGL*1080 or ENGL*1200

ENGL*3300 Restoration to Romanticism: Forging the Nation F (3-0) [0.50]
Drawing upon a range of literary texts from a variety of genres, this course will explore the politics of language and style in a series of cultural debates that shaped British national character from the late seventeenth to the late eighteenth centuries. Selected topics may include: literary representations of religious establishment and dissent; the division of power; the question of minority cultures; revolution and reaction; the problem of economic stability. Reading-intensive course. (Offered in even-numbered years.)
Prerequisite(s): ENGL*1080 or ENGL*1200

ENGL*3320 Romanticism to Victorianism: Culture and Conformity F (3-0) [0.50]
This course explores the key texts in various genres of British cultural debates of the late eighteenth to the late nineteenth century. Focal points may include: literary representations of family and society; science and narrative; Britain's "others"; class and conflict; protest and power; the roots of modernism; European influences. Reading-intensive course. (Offered in odd-numbered years.)
Prerequisite(s): ENGL*1080 or ENGL*1200
ENGL*3340 British Imperial Culture F (3-0) [0.50]
This multi-genre course introduces students to the literature of British imperialism in the eighteenth and nineteenth centuries. The course will consider the changing relationship between nation, empire, and colony by examining literary representations of such topics as: orientalism; travel writing; the construction of race; the representation of trade; the popular literature of empire; children's literature; the question of the other.
Reading-intensive course. (Offered in even-numbered years.)
Prerequisite(s): ENGL*1080 or ENGL*1200

ENGL*3360 Scottish Formations F (3-0) [0.50]
This variable content course explores selected issues, ideas and periods of this national literature, including influences on immigrant and world literature. Topics may include: mythologizing the Celt; Scottish writers and English critics; sovereignty and nationhood; "new wave" writing; Scottish influences on the Canadian canon; witches, devils, and folk tales. Reading-intensive course. (Offered in even-numbered years.)
Prerequisite(s): ENGL*1080 or ENGL*1200

ENGL*3370 Narrative Modes: 18th- and 19th-Century Literature W (3-0) [0.50]
This course offers comparative study of narrative structures, which includes selections from such genres as poetry, fiction, biography, autobiography and specialized discourses. Focal points may include romance; the gothic; the novel of sensibility; the realist novel; sensation fiction; the discourses of medicine and science. Reading intensive course. (Offered in odd-numbered years.)
Prerequisite(s): ENGL*1080 or ENGL*1200

ENGL*3380 Studies in the History of Literary Production W (3-0) [0.50]
This course will examine a range of issues arising from the materiality of book production and circulation. Topics may include serialization; mass production and circulation; patronage; reviewing; circulating libraries; licensing; censorship; children's literature; periodicals; gift books; letters; and other aspects of publishing and the public sphere. Reading-intensive course. (Offered in odd-numbered years.)
Prerequisite(s): ENGL*1080 or ENGL*1200

ENGL*3420 Contemporary Drama W (3-0) [0.50]
British, American and European drama from the Second World War to the present day. (Offered in odd-numbered years.)
Prerequisite(s): ENGL*1080 or ENGL*1200

ENGL*3450 Early Twentieth-Century Drama F (3-0) [0.50]
A study of post-realist developments in modern drama including symbolism, expressionism, surrealism, and epic theatre. (Offered in odd-numbered years.)
Prerequisite(s): ENGL*1080 or ENGL*1200

ENGL*3460 Literature in London W (2-3) [0.50]
A study of British literature in its social and historical context. Reading of particular works will be supplemented by visits to sites of literary interest, the use of special library and museum collections, and attendance at public lectures and performances. For London Semester students only.
Prerequisite(s): Admission to the London Semester.

ENGL*3470 Twentieth-Century British Literature I W (3-0) [0.50]
This multigenre course explores aesthetic and socio-cultural movements (including modernism) in British literature from the turn of the century to mid-century. Reading-intensive course. (Offered in odd-numbered years.)
Prerequisite(s): ENGL*1080 or ENGL*1200

ENGL*3480 Twentieth-Century British Literature II F (3-0) [0.50]
This multigenre course explores aesthetic and socio-cultural movements (including postmodernism) in British literature from mid-century to the present. Reading-intensive course. (Offered in odd-numbered years.)
Prerequisite(s): ENGL*1080 or ENGL*1200

ENGL*3540 Writing the United States: Forging the Nation F (3-0) [0.50]
This multigenre course explores the relationship between literary production and political power from the emergence of American culture in the seventeenth century to the fragmentation of the United States around the time of the Civil War in the mid-nineteenth century. Areas of focus may include national fantasy; the literature of revolution and federation; narratives of slavery, captivity, and native genocide; immigration and travel literature; the literature of reform, abolition, and the cult of domesticity. Reading-intensive course. (Offered in even-numbered years.)
Prerequisite(s): ENGL*1080 or ENGL*1200

ENGL*3550 Modern United States Literatures W (3-0) [0.50]
This multigenre course explores powerful examples of twentieth-century United States literatures, from about the First World War to the present. The selection is wide, including both traditional and experimental forms; female and male writers from various ethnic and racial groups; and a range of cultural issues. Reading-intensive course. (Offered in odd-numbered years.)
Prerequisite(s): ENGL*1080 or ENGL*1200

ENGL*3560 Emergent Literary Forms W (3-0) [0.50]
This course will introduce students to a range of medieval writing practices including manuscript culture, oral culture, early drama, literatures in translation, early lyric, and so forth. Its focus will be on the transition from oral to written literatures by way of emergent literary forms in English and other languages. The texts to be studied will be chosen from a corpus that includes the following: Monmouth's History of the Kings of Britain, the Lais of Marie de France, Chretien de Troyes, Layamon's Brut, the Mabinogion, Harald's Saga, the Chanson de Roland, extracts from saints' lives, miracle stories, play cycles, and others. Reading-intensive course. (Offered in even-numbered years.)
Prerequisite(s): ENGL*1080 or ENGL*1200

ENGL*3570 Studies in the Age of Chaucer F (3-0) [0.50]
This multigenre course explores formations of, and resistances to, ideas of national consciousness and cultural identity in Canadian literature and criticism in English from the beginnings of the twelfth century to the 1960s. Reading-intensive course. (Offered in even-numbered years.)
Prerequisite(s): ENGL*1080 or ENGL*1200

ENGL*3580 Writing Canada: Forging the Nation W (3-0) [0.50]
This multigenre course focuses on Canadian literature to World War One, examining cultural contestation in the Canadian settler colony among the Canadian, U.S., British, and indigenous peoples. Topics may include the rise of nationalist discourse, race and nation, landscape and the sublime, gothic, sentimental, and historical fiction, children's literature, slavery and resistance narratives, travel and captivity narratives. Reading-intensive course. (Offered in odd-numbered years.)
Prerequisite(s): ENGL*1080 or ENGL*1200

ENGL*3600 Canadian Poetry W (3-0) [0.50]
This course is an introductory study of Canadian poetry, in a variety of national and international contexts. Reading-intensive course. (Offered in even-numbered years.)
Prerequisite(s): ENGL*1080 or ENGL*1200

ENGL*3610 Twentieth-Century Canadian Literature and Criticism F (3-0) [0.50]
This multigenre course examines formations of, and resistances to, ideas of national consciousness and cultural identity in Canadian literature and criticism in English from the beginnings of the twentieth century to the 1960s. Reading-intensive course. (Offered in even-numbered years.)
Prerequisite(s): ENGL*1080 or ENGL*1200

ENGL*3680 Twentieth-Century Canadian Literature and Criticism F (3-0) [0.50]
This course examines the role of narrative in Canadian literature and criticism in English, since the 1960s, in relation to a variety of social, cultural, and historical contexts. Reading-intensive course. (Offered in odd-numbered years.)
Prerequisite(s): ENGL*1080 or ENGL*1200

ENGL*3690 History of Literary Criticism F (3-0) [0.50]
This course introduces students to the major critics and texts formative in the development of an English critical tradition. The study will begin with Plato and Aristotle, and proceed from the Renaissance through to modernist critical theory. (Offered in odd-numbered years.)
Prerequisite(s): ENGL*1080 or ENGL*1200

ENGL*3740 United States Imperial Culture F (3-0) [0.50]
This multigenre course will introduce students to a period of intense cultural struggle in the United States, from Civil to First World War (i.e. from the mid-nineteenth to early-twentieth centuries). Topics for consideration may include the literary representation of race, civil war, and empire; machine and mass culture; emergent literatures and changing constituencies of American citizenship. Reading-intensive course. (Offered in odd-numbered years.)
Prerequisite(s): ENGL*1080 or ENGL*1200

ENGL*3750 Studies in Postcolonial Literatures W (3-0) [0.50]
Concentrated study in a major sub-area of postcolonial literature. Specific topics will vary each year, but may involve focus on a particular genre or region such as Africa, Australia, Canada, the Caribbean, India, and the Pacific. (Offered in odd-numbered years)
Prerequisite(s): ENGL*1080 or ENGL*1200

Prerequisite(s): ENGL*1080 or ENGL*1200
ENGL*3760 The Atlantic Diaspora: Colonialism, Resistance, Literatures W (3-0) [0.50]
This course examines literatures in English in the Atlantic colonies (selected from among Canada, the Caribbean, the United States, and Latin America) in the context of movements of peoples and cultures from Africa, Europe, and India across the Atlantic Ocean. Discussion will focus on eighteenth- and nineteenth-century texts addressing such issues as cross-cultural contacts with indigenous peoples, the slave trade and abolition movements, and the kinds of culture developing in these evolving societies. Texts will be selected from among the rich array of poetry, fiction, memoirs, letters, travel accounts, period histories and ethnographies, autobiographies and folkloric records that formed the literary culture of this period. Attention may be paid to diverse forms of oral and written expression, linguistic changes, the Creole continuum, the evolution of national and racial stereotypes, and religious syncretism. Reading-intensive course. (Offered in even-numbered years.)
Prerequisite(s): ENGL*1080 or ENGL*1200

ENGL*3820 Study in a Major Author W (3-0) [0.50]
This variable-content course provides an intensive study of works by a single writer. (Offered in even-numbered years.)
Prerequisite(s): ENGL*1080 or ENGL*1200

ENGL*3860 Topics in Literary and Cultural Studies U (3-0) [0.50]
These variable-content courses provide opportunities for topics in cross-period studies, inter- and transdisciplinary studies and cultural studies, among others that are not available in regular offerings. Consult the School for specific offerings in a given semester.

ENGL*3870 Topics in Literary and Cultural Studies U (3-0) [0.50]
These variable-content courses provide opportunities for topics in cross-period studies, inter- and transdisciplinary studies and cultural studies, among others that are not available in regular offerings. Consult the School for specific offerings in a given semester.

ENGL*3880 Topics in Literary and Cultural Studies U (3-0) [0.50]
These variable-content courses provide opportunities for topics in cross-period studies, inter- and transdisciplinary studies and cultural studies, among others that are not available in regular offerings. Consult the School for specific offerings in a given semester.

ENGL*3940 Seminar: Form, Genre, and Literary Value F,W (3-0) [0.50]
This seminar focuses on textual conventions such as form, style, and genre as they inform the interaction between reader and text. The impact of these conventions on the processes of literary production, reception, the production of meaning, and the assessment of literary value will be explored in relation to a limited number of literary works. (Choice of focus and texts to be determined by individual instructors.) Writing- and presentation-intensive course.
Prerequisite(s): ENGL*2080

ENGL*3960 Seminar: Literature in History F,W (3-0) [0.50]
This course explores the processes by which specific texts or genres emerge from particular historical moments and by which we attempt to reconstruct those historically specific connections. Seminars will focus on such topics as the archive surrounding one text, problems of period and canons, or genres and historical change. (Choice of period and texts will be determined by individual instructors.) Writing- and presentation-intensive course.
Prerequisite(s): ENGL*2080

ENGL*4040 Seminar: Medieval and Early Modern Literatures U (3-0) [0.50]
This seminar provides the opportunity for intensive study of British literature from the beginnings to 1660.
Prerequisite(s): ENGL*2080, (ENGL*2120 or ENGL*2130), (ENGL*3940 or ENGL*3960)

ENGL*4050 Seminar: 18th- and 19th-Century Literatures U (3-0) [0.50]
This seminar provides the opportunity for intensive study of British literature from 1660 to 1900.
Prerequisite(s): ENGL*2080, (ENGL*2120 or ENGL*2130), (ENGL*3940 or ENGL*3960)

ENGL*4070 Seminar: United States Literatures U (3-0) [0.50]
This seminar provides the opportunity for intensive study of American literature.
Prerequisite(s): ENGL*2080, (ENGL*2120 or ENGL*2130), (ENGL*3940 or ENGL*3960)

ENGL*4080 Canadian Literatures U (3-0) [0.50]
This seminar provides the opportunity for intensive study of Canadian literature.
Prerequisite(s): ENGL*2080, (ENGL*2120 or ENGL*2130), (ENGL*3940 or ENGL*3960)

ENGL*4100 Special Studies in English U (3-0) [0.50]
A seminar designed to provide students in semesters 7 and 8 with an opportunity to pursue studies in an area or areas of language or literature not available in other courses. The course may be taught by a visiting professor or members of the school.
Prerequisite(s): ENGL*2080, (ENGL*2120 or ENGL*2130), (ENGL*3940 or ENGL*3960)

ENGL*4110 Special Studies in English U (3-0) [0.50]
A seminar designed to provide students in semesters 7 and 8 with an opportunity to pursue studies in an area or areas of language or literature not available in other courses. The course may be taught by a visiting professor or members of the school.
Prerequisite(s): ENGL*2080, (ENGL*2120 or ENGL*2130), (ENGL*3940 or ENGL*3960)

ENGL*4200 Postcolonial Literatures U (3-0) [0.50]
This course provides the opportunity for intensive study of a representative selection of literature in English by writers from Africa, India, the Caribbean, Australia, and the Pacific.
Prerequisite(s): ENGL*2080, (ENGL*2120 or ENGL*2130), (ENGL*3940 or ENGL*3960)

ENGL*4210 Modern and Contemporary Literatures U (3-0) [0.50]
This course provides the opportunity for a study of significant works in fiction, poetry, and drama that demonstrate new approaches in form and content characteristic of 20th-century writings in English.
Prerequisite(s): ENGL*2080, (ENGL*2120 or ENGL*2130), (ENGL*3940 or ENGL*3960)

ENGL*4220 Special Topics in Women's Writings U (3-0) [0.50]
This course provides for intensive study of issues relating to the aesthetic strategies, such as those associated with structure, imagery, and language, devised by women writers to reflect women's experience and perceptions.
Prerequisite(s): ENGL*2080, (ENGL*2120 or ENGL*2130), (ENGL*3940 or ENGL*3960)

ENGL*4300 Non-fiction Prose U (3-0) [0.50]
This course offers an intensive study of non-fiction prose. Topics to be explored may include the roles and contexts of public and/or private writing, the role of literary criticism in reading texts sometimes marked as non-literary, the history of non-fictional prose forms, or the formal or ideological uses of the distinctions between fact and fiction.
Prerequisite(s): ENGL*2080, (ENGL*2120 or ENGL*2130), (ENGL*3940 or ENGL*3960)

ENGL*4680 Seminar: 20th-Century Poetry U (3-0) [0.50]
Studies in English-language modern and contemporary poetry.
Prerequisite(s): ENGL*2080, (ENGL*2120 or ENGL*2130), (ENGL*3940 or ENGL*3960)

ENGL*4690 Contemporary Literary Theory W (3-0) [0.50]
The study of the major branches of contemporary literary theory. Topics covered will include structuralism, reader-oriented theory, feminist theory, new historicist and materialist critique, postcolonialist critique, and deconstruction.
Prerequisite(s): ENGL*2080, (ENGL*2120 or ENGL*2130), (ENGL*3940 or ENGL*3960)

ENGL*4720 Creative Writing: Prose/Poetry U (3-0) [0.50]
A development and extension of the creative writing/reading skills and techniques introduced in ENGL*2920 and ENGL*2940. This course will involve the generation and revision of challenging new work, sophisticated critique of the work of other students, and focused discussion of the cultural, social, and political issues in which the practice of creative writing is enmeshed. Admission to the course is normally dependent on the successful completion of ENGL*2920 or ENGL*2940 and, following the submission of a portfolio of new work, the approval of the instructor.
Prerequisite(s): ENGL*2920 or ENGL*2940
Restriction(s): Instructor consent required.

ENGL*4810 Directed Reading S,F,W (3-0) [0.50]
This course is intended particularly as preparation for ENGL*4910. The student will design a course of readings and assignments with the instructor, whose consent must first be obtained. This option is intended only for students who have performed particularly well within the honours program. Exceptional students may take ENGL*4810 in preparation for a ENGL*4910 creative writing project, on the approval of the instructor.
Prerequisite(s): ENGL*2080, (ENGL*2120 or ENGL*2130), (ENGL*3940 or ENGL*3960)
Restriction(s): Instructor consent required.
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<th>Course Code</th>
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<td>ENGL*4910</td>
<td>Honours English Essay S,F,W (3-0) [0.50]</td>
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A major essay (approx. 25 pages) on some subject of special interest to the student is prepared and written under the direction of a faculty member. Consent of the instructor must be obtained and the subject must be approved by the School prior to the semester in which the course is to be taken. This option is intended only for students who have performed particularly well within the honours program. Exceptional students may use ENGL*4910 for creative writing, on the approval of the instructor.

**Prerequisite(s):** ENGL*2080, (ENGL*2120 or ENGL*2130), (ENGL*3940 or ENGL*3960)

**Restriction(s):** Instructor consent required.
ENVB*2010 Food Production and the Environment W (3-0) [0.50]
Systems of food production are described and related to their impact on the environment and food safety. Consumer demands and the effects of food processing and packaging will be discussed. Issues of population pressure and sustainable development will be explored. For non-B.Sc.(Agr.) students.
Prerequisite(s): 2.50 credits
Restriction(s): AGR*1250. Not available to students in registered in B.Sc. (AGR)

ENVB*2030 Current Issues in Forest Science F (3-0) [0.50]
Basic principles of forestry and forest management with emphasis on Canada's forests. Relationship of important tree species to their preferred environments. Aspects of tree growth, forest ecology and soils and silviculture. Utilization of forests and trees in the global context.
Prerequisite(s): BIOL*1040

ENVB*2040 Biology of Plant Pests W (3-0) [0.50]
An interdisciplinary course on the nature and importance of diseases, weeds, insects and abiotic stresses on plant productivity and quality. A case history approach will be used to illustrate the biology of plant pests, the principles of pest population management, and related topics.
Prerequisite(s): BIOL*1040

ENVB*2100 Problem-Solving in Environmental Biology F,W (2-2) [0.50]
An introduction to current issues and problems in environmental biology. Methodologies of addressing environmental issues and concerns will be critically examined. Project design, information retrieval and organization, and the interpretation of statistical data will be covered. Oral and written presentations, both individual and group will be emphasized.
Prerequisite(s): BIOL*1040, (CHEM*1050 or CHEM*1310), MATH*1080

ENVB*2210 Introductory Apiculture F,W (3-0) [0.50]
This course is designed to acquaint the student with the broad field of beekeeping. It will include honey bee biology and behaviour, management for honey production, products of the hive, pests and enemies and the value of bees as pollinators of agricultural crops.

ENVB*3000 Nature Interpretation S,F (2-3) [0.50]
An exploration of communication and experiential learning theories and their application to natural history interpretation and environmental education program design. Students will develop and present interpretive materials and a program within the context of the existing nature interpretation program at The Arboretum. (Also offered through distance education format.)
Prerequisite(s): 1 of BIOL*2060, BOT*2050, BIOL*3110

ENVB*3030 Pesticides and the Environment W (3-2) [0.50]
The role and use of pesticides by various facets of society and the effect of these pesticides on biological activities in the environment. A research proposal is required.
Prerequisite(s): BIOL*1040, (CHEM*1040 or CHEM*2300)

ENVB*3040 Natural Chemicals in the Environment F,W (3-0) [0.50]
The role of naturally occurring chemical substances in the inter-relationships of organisms, population dynamics and the structure of ecosystems, and the role of such chemicals in the biological regulation and control of pests. (Also offered through distance education format.)
Prerequisite(s): BIOL*1040

ENVB*3090 Insects in Relation to Wildlife W (3-3) [0.50]
A survey of the more common insects of importance to wildlife and outdoor recreation.
Prerequisite(s): BIOL*1040

ENVB*3210 Plant Pathology F (2-3) [0.50]
The nature of disease in plants and a study of the basic principles of control. A collection of 30 plant disease specimens is required.
Prerequisite(s): BIOL*1040

ENVB*3300 Applied Ecology and Environment F (2-2) [0.50]
Environmental issues require scientific analysis. The applications of ecology, the science of diversity, abundance, and activities of living things and their interactions with the physical and biotic environment, are presented as the basis for sustainable agricultural practices, ecosystem rehabilitation, and conservation. Use of ecological principles in planning and policy are debated in local, regional, national, and global contexts.
Prerequisite(s): 1 of BIOL*2060, CROP*2110, (BIOL*3110, BIOL*3120)

ENVB*4020 Water Quality and Environmental Management F (3-3) [0.50]
This course will introduce the student to issues pertaining to water quality, how to assess environmental impacts, and strategies for the management of water resources. Examples and case studies will draw from agricultural, industrial and municipal sources. Topics include: historical perspectives, methods to assess water quality, restoration and rehabilitation of impacted aquatic habitats, and risk assessment and management of water resources.
Prerequisite(s): BIOL*3450

ENVB*4040 Behaviour of Insects W (3-0) [0.50]
Investigation of the behaviour of insects within an ecological and evolutionary framework. Topics range from basic behavioral principles to the complex behaviour exhibited by the social insects.
Prerequisite(s): 1 of BIOL*3110, ENVB*3090, ZOO*4380, ZOO*4400

ENVB*4070 Biological and Cultural Control of Plant Diseases W (3-0) [0.50]
Current concepts and approaches to managing plant pathogens and diseases in crops and natural plant communities by measures that have minimal impact on the environment. Topics include naturally-occurring biological control such as suppressive soils and induced host resistance, use of microbial agents and their modes of action, transgenic disease resistance, use of organic soil amendments and mulches to promote microbial diversity and suppress pathogens, and effects of sanitation, crop sequences, tillage, flooding, soil solarization and other cultural practices on microbial communities, including pathogens and on disease epidemics.
Prerequisite(s): 1 of BIOL*3050, ENVB*3210, MICR*3220

ENVB*4100 Applied Entomology W (3-3) [0.50]
A study of the life histories and pest management practices employed against insect pests of various plant and animal hosts. Principles of economic entomology are illustrated using specific insect pests as examples.
Prerequisite(s): 1 of ENVB*3090, 0.50 credits in Crop Production at the 3000 level

ENVB*4130 Chemical Ecology: Principles & Practice W (3-0) [0.50]
Chemicals mediate interactions between individuals of a species and between organisms and their host plants. These interactions can be manipulated and exploited to manage pest populations through the use of pheromones, allelochemicals and host plant resistance. The nature of these interactions (from behavioural to evolutionary), biological and chemical methods used in their investigation, and the application of chemical ecology to insect pest and plant disease management will be covered.
Prerequisite(s): ENVB*3040

ENVB*4220 Biology of Aquatic Insects F (2-3) [0.50]
A study of the adult and immature forms of aquatic insects. Students are required to present a collection of at least 200 insects.
Prerequisite(s): ENVB*3090

ENVB*4240 Biological Activity of Pesticides W (3-0) [0.50]
A study of the fate and mode of action of pesticides, e.g., insecticides, herbicides and fungicides.
Prerequisite(s): 0.50 credits in biochemistry

ENVB*4260 Field Entomology F (1-0) [0.50]
An introduction to insect sampling, observation, and experimentation in field situations. Lectures and discussions on the biology of the insect fauna of the field site. Students conduct two projects (individual or small group): (1) a diversity study involving the observation, collection and identification of selected groups of insects and (2) a behaviour/ecology study utilizing experimental techniques to test hypotheses. Student evaluation based on participation in course activities and written reports. Course fees cover the costs of room, board, equipment, and transportation to the field station. Detailed information is available from the Office of the Chair - Department of Environmental Biology. This course must be recorded as part of your Fall course selection and tuition and compulsory fees will be calculated accordingly.
Prerequisite(s): 1.00 or more credits in biological sciences, ENVB*3090

ENVB*4270 Insect Biosystematics W (2-3) [0.50]
A study of the lesser known groups of native insects and an introduction to taxonomic procedure and the principles of insect systematics. Students are required to assemble their own insect collections prior to registering in this course. The laboratory portion of the course will focus on identification of student insect collections.
Prerequisite(s): ENVB*3090
**ENVB*4290 Applied Insect Physiology F (2-3) [0.50]**

This course examines major physiological systems of insects at the molecular, cellular and whole animal levels of organization. Emphasis is placed on identification of potential physiological targets for insecticides, and molecular mechanisms of insecticide resistance. Applications of analytical chemistry, electrophysiology, mathematical modeling and molecular biology to the study of insect physiology are discussed. The course includes tutorial exercises examining the external and internal morphology of representative insect species.

*Prerequisite(s):* STAT*2040, (1 of ENVB*3030, ENVB*3040, ENVB*3090, TOX*2000, ZOO*3200)*

**ENVB*4420 Problems in Environmental Biology S,F,W (0-6) [0.50]**

Students will select a research problem in an area of special interest. Direction will be given by a faculty member concerned with entomology-apiculture, applied microbiology, weed science and environmental physiology, plant pathology, etc., as represented within the department. For 7th and 8th semester students considering graduate studies.

*Prerequisite(s):* 1.50 credits at the 3000 level in the agricultural and biological sciences

*Restriction(s):* Instructor consent required.

**ENVB*4550 Ecotoxicological Risk Characterization W (3-0) [0.50]**

A biologically based, advanced course that will give students working knowledge of current processes and techniques for ecotoxicological risk characterization. The course material will cover the topics of problem definition, dose response characterization, exposure characterization, risk assessment, and risk management decision making. (Also listed as TOX*4550.)

*Prerequisite(s):* ENVB*3030, TOX*2000

*Equates(s):* TOX*4550

**ENVB*4780 Forest Ecology F,W (2-3) [0.50]**

Principles of forest ecology with emphasis on the ecological principles needed for sound forest management. Biotic and abiotic components of forest ecosystems will be discussed in the context of energy flow, nutrient cycling, forest succession and appropriate silvicultural systems. (Also offered through distance education format.)

*Prerequisite(s):* ENVB*2030, (1 of BOT*2050, BIOL*2060, BIOL*3110)

**ENVB*4800 Topics in Applied Biology F (2-2) [0.50]**

An integrated overview of those areas of applied biology that are of special interest to environmentalists. The material will be directed toward students majoring in Environmental Biology and Environmental Protection. Lectures and discussions will be presented by faculty and other professionals from research, business, education and technical fields. Students will conduct seminars on selected topics.

*Prerequisite(s):* 1.50 credits at the 3000 level in the agricultural or biological sciences

*Restriction(s):* Restricted to B.Sc (Environmental Biology major) or B.Sc. (Env.) (Environmental Protection major.)
### Environmental Design and Rural Development

**EDRD*3400 Sustainable Rural Communities W (2-1) [0.50]**

The structure, function and trends affecting agri-food community settings including historical, ecological and social factors, institutions, agencies and change processes are discussed. The agricultural role of the Provincial Government and the contemporary impact of the agro-industrial complex on Ontario communities will be considered mainly from a comparative perspective. Related topics will include physical infrastructure, political conflicts, labour markets, settlement patterns, housing, gender relations, landscape management, quality of life, sustainability and the promotion of community leadership.

**Prerequisite(s):** AGR*1250 or 10.00 credits

**Restriction(s):** AGR*3400

**EDRD*3500 Recreation and Tourism Planning W (0-0) [0.50]**

Application of planning theory to recreation and tourism in the private and public sectors, approaches to implementing plans, and strategies for involving stakeholders in the planning process. Focus will also be on the impact of various approaches to planning recreation and tourism. (Offered through distance education format only.)

**Prerequisite(s):** 10.00 credits or permission of the instructor

**Equate(s):** UNIV*3500

**EDRD*3550 Economic Development for Rural and Smaller Communities S,W (0-0) [0.50]**

This course addresses the variety of challenges facing rural and smaller communities in Canada relating to livelihood creation and maintenance, employment, investment, business development, tax base maintenance and enhancement and the associated strategies for development planning and management. The roles of various agents (public, private, community, Third Sector) are addressed through the literature and case studies. The course critically examines "local" and "community" economic development, and reviews the rich Canadian experience here. The structure and dynamics of rural economies are examined. The course addresses selected methods of analysis and outlines the process of planning for, and managing, economic development at the local level. Various development organizations (e.g. cooperatives, Community Development Corporations) are examined. (Offered through distance education format only.)

**Equate(s):** UNIV*3550

**EDRD*4010 Tourism Planning in the Less Developed World F,W (0-0) [0.50]**

This course will provide a discussion and investigation of tourism from an interdisciplinary point of view. The subject of tourism development cuts across many disciplines and is fundamental to a variety of scholars and practitioners working in tourism and development generally. While a variety of important theories and planning practices from a variety of disciplines have been selected for study, planning and community development theory will provide the overarching perspective. The features of planning theories and models stress analysis and intervention into human and environmental systems. This perspective begins with the view that tourism is a complicated human construct and as such needs to be structured and guided in order to maximize the benefits to all stakeholders in the system. (Offered through distance education format only.)

**Prerequisite(s):** 5 credits

**EDRD*4500 Planning Industrial Ecology S,F (0-0) [0.50]**

To create ecologically informed and professionally skilled scientists, engineers, planners, and managers by providing them with: systems-analytic frameworks to critically examine processes, products, infrastructure, management systems and public policies from the perspective of environmental sustainability; and the skill set to guide the design of appropriate responses. Course requires a science background, minimum OAC Chemistry or Physics. (Offered through distance education format only.)

**Prerequisite(s):** 10.00 credits or equivalent

**Equate(s):** UNIV*4500
# Environmental Sciences

**Faculty of Environmental Sciences.**

The program in Environmental Sciences is interdisciplinary, involving courses from several different departments. See the B.Sc.(Env.) program information in Section X—Undergraduate Degree Programs.

## ENVS*1010 Introduction to Environmental Sciences F (3-2) [0.50]

The development of environmental science as an integrative, interdisciplinary approach to understanding and resolving environmental problems. An environmental science problem-solving framework is applied to a series of case studies reflecting the diversity of contemporary environmental issues.

**Restriction(s):** Registration in the B.Sc. (Env.) program.

## ENVS*2010 Decision-making and Communication Skills F (1-3) [0.50]

This course will cover basic concepts in creative thinking, research design, and project planning through discussion and application of a problem-solving methodology. A strong emphasis on oral and written presentations is included.

**Prerequisite(s):** ENVS*1010. Registration in semester 3.

## ENVS*3010 Internship/Externship in Environmental Sciences S,F,W (0-6) [0.50]

This is a student initiated experiential learning opportunity to be undertaken either on or off campus, and developed in consultation with the Associate Dean's Office (Faculty of Environmental Sciences). Details of the proposed activities will be outlined in a learning contract initiated by the student and agreed by the Associate Dean and an appointed project advisor prior to the commencement of the work experience. The supervisor will also provide a description of the project and/or the work experience. The course is designed to meet the needs of B.Sc. (Env.) students. (This is not available to students in the B.Sc. (Env.) Co-op program.)

**Prerequisite(s):** 12.50 credits including ENVS*2010

**Restriction(s):** Instructor consent required.

## ENVS*3320 Principles of Landscape Ecology F (3-2) [0.50]

An integrated approach to understanding the functioning of landscapes. The emerging theories, concepts and methodologies of landscape science and their application to landscape and environmental management. (Offered in even-numbered years.)

**Prerequisite(s):** 1 of BIOL*2010, BIOL*2060, BIOL*3110, GEOG*2110

## ENVS*3360 Waste Management and Utilization F (3-2) [0.50]

Students will study sources, characteristics, fate, impact and control of liquid, gaseous and solid wastes. This includes cross-media issues in waste management. Introduction to unit operations and processes for handling and treatment of solid waste, hazardous waste, wastewater and waste gas. Applications will include municipal, industrial and agricultural wastes.

**Prerequisite(s):** CHEM*2300, (MATH*2080 or MET*2030), (BIOL*1040 or MICR*1000)

## ENVS*4011 Colloquium/Project in Environmental Sciences F (0-1) [0.00]

First part of the two-semester course ENVS*4011/2. Refer to ENVS*4011/2 for course description.

**Prerequisite(s):** ENVS*2010 and registration in semester 7 or 8 of the B.Sc.(Env.) degree program

## ENVS*4011/2 Colloquium/Project in Environmental Sciences F-W [0.50]

The course permits the student the opportunity to integrate both the skills and knowledge acquired in earlier courses through application to current environmental problems and issues. Group research problems and exposure to critical environmental policy issues will form the core elements of the course. Students must be registered and attend preliminary organizational meetings scheduled in the Fall semester. This is a two-semester course offered over consecutive semesters. When you select it you must select ENVS*4011 in the Fall semester and ENVS*4012 in the Winter semester. A grade will not be assigned to ENVS*4011 until ENVS*4012 is completed.

**Prerequisite(s):** ENVS*2010 and registration in semester 7 or 8 of the B.Sc.(Env.) degree program

## ENVS*4012 Colloquium/Project in Environmental Sciences W (0-3) [0.50]

Second part of the two-semester course ENVS*4011/2. Refer to ENVS*4011/2 for course description.

**Prerequisite(s):** ENVS*4011

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### ENVS*4220 Environmental Impact Assessment W (3-0) [0.50]

This course examines environmental impact assessment (EIA) from philosophical, methodological and institutional perspectives. The evolution of EIA in Canada will be the focus. Case studies illustrating major issues and applications will be presented at a variety of geographical scales. The preparation and presentation of a research project is an integral component.

**Prerequisite(s):** 15.00 credits including (1 of BIOL*2010, BIOL*2060, BIOL*3110, (POLS*3370 or ZOO*4050, where ZOO*4050 may be taken concurrently)

### ENVS*4500 International Environmental Field Course F (0-6) [0.50]

An interdisciplinary field course to be held overseas. The course will include a common curriculum for all students, dealing with the historical, geographical, cultural and biological aspects of the location. Students will also undertake a project which would normally relate to their own specific interest. Formal instruction on the common core element of the course will be given either by Guelph faculty and/or by faculty from the host country. Each student will submit both a paper developed from the general core of the course and also a project report.

**Prerequisite(s):** 12.50 credits

**Restriction(s):** Approval of the Faculty of Environmental Sciences.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>EURO*1050</td>
<td>The Emergence of a United Europe</td>
<td>(3-0)</td>
<td>This interdisciplinary course will provide students with an understanding of the events and processes resulting in economic integration in Europe after 1945. Economic, historical and political aspects will be emphasized.</td>
</tr>
<tr>
<td>EURO*1200</td>
<td>European Culture from the Mid 18th to the Mid 19th Century</td>
<td>(3-0)</td>
<td>This course explores major trends in European culture in the context of political and social events. Focus will be on major developments in politics (e.g. the French Revolution, the birth of nationalism), philosophy (e.g. enlightenment, idealism), arts and letters (e.g. classicism, romanticism). Restriction(s): EURO*2000</td>
</tr>
<tr>
<td>EURO*2070</td>
<td>European Integration, 1957-1992</td>
<td>(3-0)</td>
<td>This interdisciplinary course aims to provide an in-depth analysis of the development of European integration from the establishment of the EEC to 1992. Major emphasis will be placed on the historical development of the European communities, their economic framework and political institutions. Other attempts at economic integration such as EFTA and Comecon will be considered in less detail. Prerequisite(s): 1 of EURO<em>1050, HUMN</em>1050, permission from one of the instructor or Coordinator of European Studies</td>
</tr>
<tr>
<td>EURO*2200</td>
<td>European Culture from the Mid 19th Century to the 1920’s</td>
<td>(3-0)</td>
<td>This course explores major trends in European culture in the context of political and social events. Topics studied include major political events and their significance for culture (e.g. bourgeois liberalism, revolts in the mid 19th century, World War I and its aftermath), thinkers who have shaped the 20th century (e.g. Nietzsche, Unamuno, Freud), avant-garde movement and innovation in the arts and letters (e.g. impressionism, futurism, expressionism, surrealism). Prerequisite(s): EURO<em>1200 is recommended Restriction(s): EURO</em>1020</td>
</tr>
<tr>
<td>EURO*2300</td>
<td>European Culture since 1920</td>
<td>(3-0)</td>
<td>This course explores major trends in European culture in the context of political and social events. The focus will be on political events and their significance for culture (e.g. fascism, World War II and the Holocaust and their effects in the second half of the 20th century, the political reorganization of Europe, protest movements), new trends in thought (e.g. existentialism, structuralism, post-modernism feminism) and the arts and letters (e.g. neorealism epic theatre, new wave cinema). Prerequisite(s): EURO<em>1200 and EURO</em>2200 are recommended Restriction(s): EURO*1020</td>
</tr>
<tr>
<td>EURO*3150</td>
<td>Topics in European Film</td>
<td>(3-0)</td>
<td>This course will examine representative French, German, Italian and Spanish films in a socio-political context. It will focus on the interaction between the films' aesthetics and the political and cultural conditions in Europe. The topics to be discussed in the course will centre on the relationship between the development of major movements in European film, such as Italian Neo-Realism and the French, German and Spanish New Waves, and film makers' ideological projects such as the construction or deconstruction of national, gender and ethnic identity. (Offered in even-number years.) Prerequisite(s): EURO*2300</td>
</tr>
<tr>
<td>EURO*4600</td>
<td>Honours Seminar in European Studies</td>
<td>(3-0)</td>
<td>A seminar course designed to explore one or more topics of European culture, history and/or business, depending on the expertise of the instructor. Students should consult the Coordinator of European Studies for specific offerings. Prerequisite(s): EURO<em>1020, EURO</em>1050, EURO<em>2000, EURO</em>2070 Restriction(s): Approval of the Coordinator for European Studies.</td>
</tr>
<tr>
<td>EURO*4740</td>
<td>Research Project in European Studies</td>
<td>(3-0)</td>
<td>An independent study course that requires a research project on an aspect of European Studies. The topic must be approved by the Coordinator of the European Studies Program. Research is undertaken with the guidance of a faculty advisor, and seminar presentations will be included. A final research paper must be written in the student's chosen core language. Note: In order to demonstrate language proficiency and complete the requirements of EURO<em>4740, students have another option. They may choose to spend their third year studying at a European university, in the country where their chosen core language is spoken. Those who can demonstrate that they have successfully written a major academic paper or exam in their chosen core language while registered in a course at a European university as part of their approved study year will be waived from EURO</em>4740. See the Coordinator for the European Studies program for more information. Prerequisite(s): EURO<em>1020, EURO</em>1050, EURO<em>2000, EURO</em>2070, Restriction(s): Approval of the Coordinator for the European Studies Program.</td>
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</tbody>
</table>
External Courses

All courses labeled XCST*XXXX are Conestoga College Institute of Technology and Advanced Learning Courses. The corresponding Conestoga Course numbers are provided. Detailed course profiles can be accessed through the Conestoga College Institute of Technology and Advanced Learning home page at http://www.conestogac.on.ca/. All XCST*XXXX courses are limited to students in the Career Development Practitioner program.

All courses labeled XSEN*XXXX are Seneca College Courses. The corresponding Seneca Course numbers are provided. Detailed course profiles can be accessed through the Seneca College home page at http://www.senecac.on.ca/. All XSEN*XXXX courses are limited to students in the B.Sc.(Tech.) program.

All courses labeled XSHR*XXXX are Sheridan College Institute of Technology and Advanced Learning Courses. The course descriptions appear in the Sheridan College Institute of Technology and Advanced Learning academic calendar and can be accessed through the Sheridan College Institute of Technology and Advanced Learning home page at http://www.sheridanc.on.ca/. All XSHR*XXXX courses are limited to students in the Sports Injury Management program.

XSEN*3060 Pharmaceutical Analysis - Advanced W (2-3) [0.50]
This course reinforces the concept of how the pharmaceutical laboratory works by focusing on method validation requirements within the pharmaceutical industry. It introduces students to the regulatory (ICH, FDA) requirements and guidelines for systems validation, including TPF-acceptable methods and GMP regulations. Validation methods that are taught include Related Substances, Assay, Dissolution and Cleaning. Critical validation parameters (e.g., linearity, specificity, limit of quantitation, etc.) are focused on as well as validation protocols including establishing specifications and dealing with exceptions or out-of-specification (OOS) results. Process validation characteristics (i.e., Design Qualification (DQ), Installation Qualification (IQ), Operation Qualification (OQ), Performance Qualification(PQ) or System Suitability) are also emphasized as well as "Best Practices" such as Process Capabilities and Annual Product Review. This course is taught at Seneca College.
Prerequisite(s): XSEN*3020
External Course Code(s): Seneca #PHS-533

XSEN*3100 Analog and Digital Communications F,W (3-2) [0.50]
Students are provided with a good background in the fundamentals of analog communication techniques including modulation schemes (e.g. AM and FM) and associated circuitry. The course also introduces the concepts of digital communications, covering such topics as sampling, PCM, digital multiplexing, and digital modulation. This course is taught at Seneca College.
Prerequisite(s): PHYS*2040
External Course Code(s): Seneca #ADC-455

XSEN*3120 Microprocessors I F,W (3-2) [0.50]
This introductory microcontroller subject deals with both the hardware and software of 8-bit devices. The primary example used is the Motorola MC68HC11. The subject examines two major areas: introductory computer/microcontroller concepts, and assembler language programming. A substantial amount of time is devoted to practical laboratory work. This course is taught at Seneca College.
Prerequisite(s): CIS*2500, PHYS*2040
External Course Code(s): Seneca #MCO-455

XSEN*3130 Object Oriented Programming Using C++,F,W (2-2) [0.50]
The course uses the C++ programming language as a tool to implement Object Oriented Programming (OOP) concepts. The OOP concepts such as Classes, Member and Friend Functions, Constructor and Destructor Functions, Operator Overloading, Inheritance, Composition, Virtual Functions and Polymorphism, Stream I/O, Templates and Exception Handling are covered, as well as the OOP methods. This course is taught at Seneca College.
Prerequisite(s): CIS*2500
External Course Code(s): Seneca #PRG 355

XSEN*3140 Operating Systems F,W (2-2) [0.50]
This course explores the system concepts, command languages and application of several operating system platforms such as UNIX. This course is taught at Seneca College.
Prerequisite(s): CIS*1500, (CIS*2030 recommended)
External Course Code(s): Seneca #DPR-355

XSEN*4010 Pharmaceutical Calculations F,W (3-0) [0.50]
This subject introduces the study of technical writing, including specified formats such as memoranda, letters, proposals, and informal reports. The course applies and develops the skills of technical writing in a series of writing assignments placing emphasis on brevity, clarity, conciseness, unity and coherence - all essential to good technical communication. Basic research skills and effective oral communications are also covered.
This course is offered at Guelph.
External Course Code(s): Seneca #SES-391

XSEN*4030 Occupational Health and Chemistry W (2-3) [0.50]
A general coverage of general aspects of industrial hygiene. Specific topics include Canadian legislation with respect to Occupational Safety, modes of evaluation of chemical exposure, occupational toxicology, and instrumentation associated with the evaluation of the occupational environment. This course is taught at Seneca College.
Prerequisite(s): CHEM*2700
External Course Code(s): Seneca #OCC-433

XSEN*4020 Pharmaceutical Organic Chemistry W (1-3) [0.50]
In this subject the determination of the structure of organic compounds using spectrometric methods such as N.M.R. and mass spectroscopy are discussed. Correlation of structure and reactivity (in particular, drug activity) of organic compounds is also explored. A multi-step synthesis of an anesthetic (lidocaine) and mass-spectrometric analysis of an unknown organic compound (or mixture) are examples of lab-projects covered in this subject. This course is taught at Seneca College.
Prerequisite(s): CHEM*3750
External Course Code(s): Seneca #PAC-633

External Course Code(s): Seneca #OCC-433
XSEN*4030 Pharmaceutical Product Formulations W (2-3) [0.50]
This subject deals with the theoretical and practical aspects of pharmaceutical product formulation with an emphasis on semi-solid and liquid formulations. The students prepare and test ointments, creams, lotions, and syrups in the laboratory. Formulation as it relates to overall product stability and efficacy is also covered in both theoretical and practical terms. This course is taught at Seneca College.

Prerequisite(s): CHEM*3750
External Course Code(s): Seneca #PPF-633

XSEN*4040 Pharmaceutical Manufacturing W (2-3) [0.50]
An introduction to the important principles and methods related to the production of pharmaceuticals. Topics include methods of manufacture of important dosage forms, regulations governing various dosage forms, good manufacturing practice as defined by regulatory bodies and an overview of the manufacturing plant during the various stages of production with emphasis on GMP. This course is taught at Seneca College.

Prerequisite(s): BIOC*3570, CHEM*3750
External Course Code(s): Seneca #PYN-633

XSEN*4050 Biopharmaceuticals W (3-0) [0.50]
This subject introduces the student to the rapidly developing field of biotechnology and biopharmaceuticals. Techniques used in the development of biopharmaceuticals will be emphasized as well as large-scale production of biologicals manufactured by genetic engineering processes. This course is taught at Seneca College.

External Course Code(s): Seneca #BPH-633

XSEN*4100 Event Driven Programming and Visual Basic F,W (2-2) [0.50]
This course covers the essential programming concepts supported by the Visual Basic programming language, including: object-oriented programming, database management, activeX controls, file I/O, user-defined data types. Various objects (forms, modules and controls) provided by Visual Basic will be used. The course will introduce the fundamental concepts of the event-driven and visual programming. Visual Basic Professional Edition will be used as the integrated development environment. The interaction between Visual Basic and various DBMS software packages will be introduced. This course is taught at Seneca College.

Prerequisite(s): XSEN*3130
External Course Code(s): Seneca #PRG-455

XSEN*4110 Data Acquisition and Control F,W (3-2) [0.50]
This course covers the real-time acquisition and display of analog signals using a PC, interface card, and A/D converter. 'C' will be used as the programming language. The course will cover the basic architecture of the PC as well as interfacing to the PC bus. Graphical programming techniques will be developed for the purposes of displaying and reading sensor data. The course will introduce the fundamental concepts of feedback control using a PC. The course also reviews analog electronics, the purpose being to develop skills in analog interface design. This course is taught at Seneca College.

Prerequisite(s): CIS*2500, MATH*2170
External Course Code(s): Seneca #CST-555

XSEN*4120 Data Communications F,W (4-2) [0.50]
This course has been designed to provide an in-depth understanding of the underlying principles of the rapidly expanding and changing discipline of Data Communications. The following topics in this subject are discussed: terminology, components, network design and configurations, transmission media including fibre optical design methods, protocols, topologies, architectures, private and public network strategies and LAN vendors. This course is taught at Seneca College.

Prerequisite(s): XSEN*3100
External Course Code(s): Seneca #DCM-555

XSEN*4130 Networking Essentials F,W (1-3) [0.50]
The major topics covered in this course include: networking overview and topologies, network cabling, network access methods and technologies, network architectures (OSI model) and standards, network protocols, network connectivity, local area network implementation and configuration, Windows 95/98, Windows NT/2K, and Linux. This course is taught at Seneca College.

Prerequisite(s): CIS*2500, XSEN*3140, (CIS*2030 recommended)
External Course Code(s): Seneca #NET-555

XSEN*4140 Technical and Personal Communications F,W (4-0) [0.50]
This course combines reading, writing, and basic research skills and applied them to technical materials and situations. Today, technical firms insist on strong communication skills in their employees, not just technical competence. Oral and written presentations of material, as well as project-related research, will be required elements of this course. This course is taught at Seneca College.

External Course Code(s): Seneca #TPC-455

XSEN*4150 Microprocessors II F,W (3-3) [0.50]
This is the second microcontroller course based on the ADAPT11 EVB Micro Controller System. The course emphasizes Assembly Language program structure, implementation of subroutines, input/output concepts, interrupt utilization, and analog to digital conversion. Students will use an interface which involves switches, LEDs, four 7 segment displays, light sensor, temperature sensor, speaker, infrared transmitter and receiver, and RAM. This course is taught at Seneca College.

Prerequisite(s): XSEN*3120
External Course Code(s): Seneca #MCO-555

XSEN*4160 Computer Peripheral Systems F,W (2-2) [0.50]
This course prepares students for the A+ certification examination, and for small business PC network consulting. Topics include WIN 9x and 2K installation, LINUX installation, SCSI and USB, monitors, printers, notebooks, server set up in a multi-OS network, tape backup systems, and digital cameras. This course is taught at Seneca College.

Prerequisite(s): XSEN*4130
External Course Code(s): Seneca #PER-655

XSHR*1710 Sheridan--Emergency Conditions U (0-0) [0.25]
Offered by Sheridan College.

XSHR*1720 Sheridan--Lower Quadrant Composite U (0-0) [0.25]
Offered by Sheridan College.

XSHR*1730 Sheridan--Field Practice I (100 hours) U (0-0) [0.50]
Offered by Sheridan College.

XSHR*1740 Sheridan--Protective Equipment U (0-0) [0.25]
Offered by Sheridan College.

XSHR*2710 Sheridan--Field Practice II (200 hours) U (0-0) [0.50]
Offered by Sheridan College.

XSHR*2720 Sheridan--Field Practice III (250 hours) U (0-0) [1.00]
Offered by Sheridan College.

XSHR*2760 Sheridan--Clinical Assessment Rehab. I U (0-0) [0.25]
Offered by Sheridan College.

XSHR*2770 Sheridan--Functional Anatomy of Spine/Head U (0-0) [0.25]
Offered by Sheridan College.

XSHR*2780 Sheridan--Sports Injury Clinic I U (0-0) [0.25]
Offered by Sheridan College.

XSHR*2790 Sheridan--Mechanics of Lower Quadrant U (0-0) [0.25]
Offered by Sheridan College.

XSHR*2800 Sheridan--Human Adaptation to Exercise U (0-0) [0.50]
Offered by Sheridan College.

XSHR*2810 Sheridan--Clinical Assessment Rehab. II U (0-0) [0.50]
Offered by Sheridan College.

XSHR*2820 Sheridan--Mechanics of Upper Quadrant U (0-0) [0.50]
Offered by Sheridan College.

XSHR*2830 Sheridan--Clinical Assessment Rehab. III U (0-0) [0.50]
Offered by Sheridan College.

XSHR*2840 Sheridan--Clinical Administration U (0-0) [0.50]
Offered by Sheridan College.

XSHR*2850 Sheridan--Manual Therapy U (0-0) [0.25]
Offered by Sheridan College.

XSHR*2860 Sheridan--Field Practice V (200 hours) U (0-0) [0.75]
Offered by Sheridan College.

XSHR*2870 Sheridan--Field Practice VI U (0-0) [0.75]
Offered by Sheridan College.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
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<tr>
<td>XSHR*2880</td>
<td>Sheridan--Clinical Placement U (0-0)</td>
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<tr>
<td>XSHR*2890</td>
<td>Sheridan--Sports Injury Clinic II U (0-0)</td>
<td>0.25</td>
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<td>Offered by Sheridan College.</td>
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</table>
Family Relations and Human Development

Department of Family Relations and Applied Nutrition.

These courses support three majors offered by the Department of Family Relations and Applied Nutrition: Child Studies, Family and Social Relations, and Gerontology.

FRHD*1010 Human Development F (3-0) [0.50]
An introduction to the study of the development of the individual throughout the life cycle. Emphasis will be placed on the interrelationships between physiological, sociological and psychological aspects of normal human development. (Also offered through distance education format.)
Equates(s): FRHD*2010

FRHD*1020 Couple and Family Relationships W (3-0) [0.50]
A survey of family dynamics throughout the life course, emphasizing themes of power, intimacy and family diversity. Topics may include: gender socialization, sexuality, mate selection, communication, abuse, couple interaction, parent-child relations, divorce, remarriage. (Also offered through distance education format.)

FRHD*2270 Development in Early and Middle Childhood W (3-0) [0.50]
An examination of developmental principles and milestones characterizing infant development from conception to 24 months. Emphasis will be placed on understanding the nature of the reciprocal family-infant interactions during this period, and on the societal context influencing those interactions. (Also offered through distance education format.)
Prerequisite(s): FRHD*1010, PSYC*1200, SOC*1100
Equate(s): PSYC*2200

FRHD*2260 Infant Development W (3-0) [0.50]
An examination of developmental principles and milestones characterizing infant development from conception to 24 months. Emphasis will be placed on understanding the nature of the reciprocal family-infant interactions during this period, and on the societal context influencing those interactions. (Also offered through distance education format.)
Prerequisite(s): FRHD*1010 (or PSYC*1200 and ANTH*1150) or (PSYC*1200 and SOC*1100)
Equate(s): CSTU*2260

FRHD*2200 Development in Early and Middle Childhood F (3-0) [0.50]
Examination of development in the early and middle childhood years, with emphasis on family and societal contexts.
Prerequisite(s): FRHD*1010 or (PSYC*1200 and ANTH*1150) or (PSYC*1200 and SOC*1100)
Equate(s): CSTU*2270

FRHD*2280 Adolescent Development W (3-0) [0.50]
An examination of psychosocial development in adolescence, emphasizing physiological, social and emotional changes. (Also offered through distance education format.)
Prerequisite(s): 1 of FRHD*2260, FRHD*2270, PSYC*2450
Equate(s): FRHD*3080

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FRHD*2040 Principles of Program Design for Children W (2-2) [0.50]
This course will examine the elements involved in planning and implementing quality play-based programs for young children. Some of the issues include: the role of the teacher, meeting developmental needs, the materials and the organization of the environment, and instructional strategies. The course will involve a workshop component.
Prerequisite(s): FRHD*2260, FRHD*2270
Equates(s): CSTU*2040
Restriction(s): Registration in B.A.Sc. Program (Child Studies or Child, Youth & Family majors).

FRHD*2660 Adult Development and Aging W (3-0) [0.50]
An overview of major theoretical approaches, research issues and methodologies, and significant research findings which relate to adult development and aging.
Prerequisite(s): 1 of FRHD*1010, PSYC*1200, SOC*1100
Equate(s): PSYC*2660

FRHD*2110 Development of Human Sexuality F (3-0) [0.50]
A social scientific analysis of human sexuality. Emphasis will be placed on the development of sexuality within an interpersonal context. (Also offered through distance education format.)
Prerequisite(s): 5.00 credits

FRHD*2110 Exceptional Children and Youth W (3-0) [0.50]
An overview of childhood exceptionalities including intellectual differences, communication disorders, sensory impairments, developmental and behavioural disorders, and health problems. Issues faced by the exceptional child as well as the parents and siblings are discussed. (Also offered through distance education format.)
Prerequisite(s): FRHD*1010, FRHD*2270 or PSYC*2450
Equate(s): CSTU*2110

FRHD*2260 Adaptive Development W (3-0) [0.50]
This course will examine the elements involved in planning and implementing quality play-based programs for young children. Some of the issues include: the role of the teacher, meeting developmental needs, the materials and the organization of the environment, and instructional strategies. The course will involve a workshop component.
Prerequisite(s): FRHD*2260, FRHD*2270
Equate(s): CSTU*2040
Restriction(s): Registration in B.A.Sc. Program (Child Studies or Child, Youth & Family majors).

FRHD*2300 Principles of Program Design for Youth W (3-0) [0.50]
The course is designed to expose students to the issues and program development strategies that lay the foundation for quality experiences for youth. Students will examine the developmental needs of adolescents, models for programming and the role of the youth worker in a variety of contexts.
Prerequisite(s): FRHD*2270
Co-requisite(s): FRHD*2280
Restriction(s): Registration in the Child Studies, or Child Studies Co-op, Child, Youth and Family or Child, Youth and Family Co-op majors.

FRHD*2304 Parenting: Research and Applications F (3-0) [0.50]
A study of research concerning parent-child relationships, primarily in North American society.
Prerequisite(s): FRHD*1020, (FRHD*2270 or PSYC*2450)

FRHD*3060 Principles of Social Gerontology F (3-0) [0.50]
A study of social and health aspects of individual and population aging, including theories and implications for understanding and working with the elderly.
Prerequisite(s): 10.00 credits including 1 of FRHD*1020, SOAN*3100, SOC*3100

FRHD*3070 Research Methods - Family Studies F (2-2) [0.50]
A critical examination of research methods in family studies.
Prerequisite(s): 10.00 credits
Restriction(s): Registration in B.A.Sc. Program.

FRHD*3090 Child and Family Poverty F (3-0) [0.50]
An examination of the research dealing with children for whom environmental conditions constitute a serious impediment to later development; a consideration of appropriate policies and practices.
Prerequisite(s): FRHD*2110, NUTR*1010
Equate(s): CSTU*3100

FRHD*3120 Families in Canadian Context W (3-0) [0.50]
Canadian families are studied from a structural perspective and are placed in social and historical context. Topics include structural variations in family form, work roles within and outside the family, the structural significance of marriage and parenthood, and social policies affecting families.
Prerequisite(s): FRHD*1020

FRHD*3150 Strategies for Behaviour Change F (3-0) [0.50]
This course will review the nature and use of behaviour change strategies commonly used in interventions with children, youth, and their families.
Prerequisite(s): FRHD*2110

FRHD*3180 Observation and Assessment W (3-0) [0.50]
Direct observation as a strategy for collecting information on children's behaviour in applied and research settings. Emphasis on theory, recording and interpreting observational data and communicating findings in written reports.
Prerequisite(s): FRHD*2040, FRHD*2110
Equate(s): FRHD*3180
Restriction(s): Registration in semester 5 or above in the Child Studies or Child Studies Co-op, Child, Youth & Family or Child, Youth & Family Co-op majors.

FRHD*3190 Administration of Programs for Children and Youth W (3-0) [0.50]
A study of the roles and responsibilities of administrators in programs for children and youth with emphasis on the development of appropriate policies and procedures: management of human and financial resources; and internal and external communication within the context of multidisciplinary settings. Attention will be given to quality assurance, professional ethics, and continuing professional development. (Offered through distance education format only.)
Prerequisite(s): 10.00 credits including one of FRHD*2260, FRHD*2270, PSYC*2450
Equate(s): CSTU*4270, FRHD*4270

FRHD*3200 Practicum--Child, Youth and Family I F,W (3-0) [1.00]
Seminar and supervised experience with children. The practicum will be designed to demonstrate the application of theory studied earlier in the program. It will also provide opportunities for working directly with young people while examining such topics as the role of the teacher, teacher-child interaction, and program implementation. Students wishing to enrol in this course must consult with the instructor during course selection.
Prerequisite(s): FRHD*1020, FRHD*2040 or FRHD*2300, NUTR*1010
Equate(s): CSTU*2310, FRHD*3170
Restriction(s): Registration in the Child Studies, or Child Studies Co-op, Child, Youth and Family or Child, Youth and Family Co-op majors. Instructor Consent.
XII. Course Descriptions, Family Relations and Human Development

FRHD*3400 Communication and Counselling Skills S,F,W (3-0) [0.50]
Examination and analysis of the theories and methods of communication as applied within the processes of family counseling and consultation.

Prerequisite(s): 10.00 credits including FRHD*1020

Restriction(s): This is a Priority Access Course and some restrictions may apply during some time periods. Please contact the department for more information.

FRHD*4020 Family Theory F (3-0) [0.50]
An analysis of theoretical approaches and concepts in the study of the family.

Prerequisite(s): 12.50 credits including FRHD*2010

FRHD*4061 Family and Community: Field Placement F (2-8) [1.00]
First part of the two-semester course FRHD*4061/2. Refer to FRHD*4061/2 for course description.

Prerequisite(s): FRHD*3400

FRHD*4061/2 Family and Community: Field Placement F-W (2-0) [2.00]
Seminar and supervised field placement in health and social service agencies. The practicum and seminar will further develop and expand students’ helping roles in agencies and the integration and application of theoretical knowledge from previous course work with practice. Students wishing to enrol in this course must consult with the instructor during the course selection period.

This is a two-semester course offered over consecutive semesters. When you select it you must select FRHD*4061 in the Fall semester and FRHD*4062 in the Winter semester. A grade will not be assigned to FRHD*4061 until FRHD*4062 is completed.

Prerequisite(s): FRHD*3400

Restriction(s): Registration in the Family and Social Relations or Gerontology majors. Instructor consent required.

FRHD*4062 Family and Community: Field Placement W (2-8) [1.00]
Second part of the two-semester course FRHD*4061/2. Refer to FRHD*4061/2 for course description.

Prerequisite(s): FRHD*4061

FRHD*4070 Topics in Family Relations and Human Development U (3-0) [0.50]
Lecture-discussion or seminar on a selected topic in family studies. To be conducted by regular or visiting faculty with expertise in the area. Students should check with the Department of Family Relations and Applied Nutrition to determine what topic will be offered during specific semesters and which prerequisites, if any, are appropriate.

FRHD*4080 Topics in Family Relations and Human Development U (3-0) [0.50]
Lecture-discussion or seminar on a selected topic in family studies. To be conducted by regular or visiting faculty with expertise in the area. Students should check with the Department of Family Relations and Applied Nutrition to determine what topic will be offered during specific semesters and which prerequisites, if any, are appropriate.

FRHD*4090 Topics in Family Relations and Human Development U (3-0) [0.50]
Lecture-discussion or seminar on a selected topic in family studies. To be conducted by regular or visiting faculty with expertise in the area. Students should check with the Department of Family Relations and Applied Nutrition to determine what topic will be offered during specific semesters and which prerequisites, if any, are appropriate.

FRHD*4100 Dynamics of Group and Family Functioning F (2-2) [0.50]
An exploration of group processes through participation and laboratory groups. Group theory and current techniques used in group and family counselling will also be reviewed in lectures.

Prerequisite(s): FRHD*3040 or FRHD*3400

FRHD*4160 Family Relations in Gerontology F (3-0) [0.50]
A critical examination of selected issues affecting the well-being of the elderly in Canada. Topics will include such issues as the nature and types of community support systems for the aged, and institutionalization and its alternatives.

Prerequisite(s): FRHD*3060

FRHD*4170 Practicum--Child, Youth and Family II F,W (4-16) [1.00]
Seminar and experience with children in an appropriate field setting to be assigned by the department. Emphasis will be upon developing, implementing and evaluating program plans for children in educational and community settings. Students will acquire communication and interactive skills with children and adults. Students wishing to enrol in the course must consult with the course instructor during the course selection period.

Prerequisite(s): FRHD*3170 or FRHD*3200

Equate(s): CSTU*4151/2

Restriction(s): Instructor consent required.

FRHD*4180 Assessment and Intervention F (2-2) [0.50]
Principles and theories of assessment and evaluation as related to the child, the family, and to child oriented intervention, education and social service programs.

Prerequisite(s): FRHD*2110, FRHD*3070, FRHD*3180

Restriction(s): Registration in semester 7 or above in the Child Studies or Child Studies Co-op, Child, Youth & Family or Child, Youth & Family Co-op majors.

FRHD*4190 Assessment in Gerontology F (2-2) [0.50]
This course provides an examination and critique of current methods of assessing older adults. Tools to be considered include those for assessing dementia, depression, and pain. Students will examine diagnostic criteria that form the underpinnings of most tests and then examine each test for its psychometric properties and appropriate use. An understanding of the ethical principles governing assessment will be gained.

Prerequisite(s): FRHD*2060

Restriction(s): Semester 7 and above.

FRHD*4200 Issues in Human Sexuality W (3-0) [0.50]
An advanced analysis of sexual development. Specific attention will be given to sexual problems, and the concepts, methods and issues associated with sex education and counselling.

Prerequisite(s): FRHD*2010, FRHD*2100 and 1.00 credit at the 3000 level in Family and Social Relations, Psychology or Sociology

FRHD*4210 Senior Seminar in Early Education and Care F (3-0) [0.50]
The study of the historical and philosophical basis of programs for young children evaluated from a developmental perspective. Emphasis will be on current approaches and programs and contemporary issues in early childhood programming.

Prerequisite(s): FRHD*3170 or FRHD*3200

Equate(s): CSTU*4210

Restriction(s): Registration in semester 7 or above in the Child Studies or Child Studies Co-op, Child, Youth & Family or Child, Youth & Family Co-op majors.

FRHD*4250 Aging and Health F (3-0) [0.50]
This course offers upper level undergraduates a forum to explore issues related to aging and health across the adult life span. More specifically, the conceptual groundwork necessary for understanding the roles of the life span development, individual development, physiological changes in human aging, contextual influences and interactions, and several models/theories of aging and health will be examined. A primary objective of the course is the integration of models and theory to facilitate understanding of aging and health topics. Topics include but are not limited to: age changes and disease processes (both acute and chronic); mental health and illnesses; medication use; disease prevention and health promotion; influence of health on family relationships, caregiving, and placement decisions; systemic and societal influences on health; and ethical issues and controversies surrounding the end-of-life care and decision making, advanced directives, assisted suicide, and death and dying.

Prerequisite(s): 10.00 credits including FRHD*2060

FRHD*4260 Social Policy and Gerontology F (3-0) [0.50]
An examination of aging and adult development in relation to social policy with special reference to families.

Prerequisite(s): FRHD*3060

FRHD*4310 Professional Issues F (3-0) [0.50]
This course examines ethical and professional issues in working with children, youth, adults of all ages, and their families. A variety of institutional settings are considered (e.g., school systems, treatment agencies, youth residential programs, senior care facilities). The complexities of professional practice with diverse populations are explored in depth. Legal aspects relevant to work in this area are also addressed.

Prerequisite(s): FRHD*3400

FRHD*4320 Social Policies for Children, Youth and Families W (3-0) [0.50]
This course focuses on current social policies, programs, and services that affect children’s development and family well-being. Issues include policies that affect income security, parental effectiveness, social service provision, and community resources.

Prerequisite(s): FRHD*3040

FRHD*4400 Youth, Risk and Resilience W (3-0) [0.50]
This course examines biological, and social-contextual aspects of developmental issues evident in childhood and adolescence. The theoretical perspective of developmental psychopathology will be used to examine literatures relating to risk, resilience, developmental trajectories, classification, assessment, and intervention. Students will have a chance to critically examine many mental health issues commonly found in childhood and adolescence.

Prerequisite(s): FRHD*2110, FRHD*2280

Restriction(s): PSYC*3460
### FRHD*4810 Thesis I U (3-0) [0.50]
Planning, developing and writing a research proposal under individual faculty supervision. Topic to be decided by the student in consultation with the supervisory faculty member before she/he may course select or register for the course.

**Prerequisite(s):** FRHD*3070. Instructor consent required.

**Equate(s):** CSTU*4810

### FRHD*4910 Thesis II U (6-0) [1.00]
The student will conduct and write an undergraduate thesis under the direction of a faculty member.

**Prerequisite(s):** FRHD*4810

**Equate(s):** FRHD*4911/2
### Food Science

**Department of Food Science.**

#### XII. Course Descriptions, Food Science

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>FOOD*3010</td>
<td>Principles of Food Science S.W (3-0) [0.50]</td>
<td>Principles involved in the processing, handling and storage of foods. Relationship of science and technology to food processing. (Offered through distance education format only.)</td>
<td>Offered through distance education format only.</td>
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<tr>
<td>Restriction(s):</td>
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<td></td>
<td>FOOD<em>2150, FOOD</em>3070, NUTR*2150</td>
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| FOOD*2100 | Communication in Food Science I W (3-0) [0.50] | Students will acquire basic skills in technical and business communication and be prepared to complete a variety of communication assignments in subsequent semesters. Students will learn and apply the principles of effective written and oral communication. Communication achievements made during the undergraduate program will be presented in a communication portfolio in a subsequent course, FOOD*4100. | Enrolment in the Food Science or Food Science Co-op Majors of the B.Sc. Program. |
| Restriction(s): | | | |

**FOOD*2150 Introduction to Nutritional and Food Science F (3-0) [0.50]**

This interdisciplinary course provides an introduction to the Food and Nutritional Sciences from both historical and modern perspectives. Major themes are the nutritional and functional properties of foods, nutrient assimilation, food preservation and safety, and the interactions between food processing, diets and health. The course is taught by the Department of Food Science. (Also listed as NUTR*2150.)

**Prerequisite(s):** BIOL*1040, (CHEM*1040 or CHEM*1300)

**Equate(s):** NUTR*2150

**Restriction(s):** AGR*3330, FOOD*2150, FOOD*3070. Not available to students registered in Applied Human Nutrition major.

**FOOD*2400 Introduction to Food Chemistry S (3-0) [0.50]**

An introduction to the chemistry and biochemistry of the major components of foods: lipids, proteins, carbohydrates and water. In addition, an overview of some of the reactions and changes in food components which occur during processing, handling and storage will be presented. This course may not be taken for credit by students in the Food Science Major. (Offered through distance education format only.)

**Prerequisite(s):** CHEM*1040

**Restriction(s):** FOOD*3010, FOOD*3100

**FOOD*2410 Introduction to Food Processing W (3-0) [0.50]**

An introduction to food processes and the relationships between chemistry, microbiology, and engineering as they apply to food processing are discussed. The following topics are included: high and low temperature processes; moisture control and intermediate moisture foods; concentration and dehydration processes; and novel food processing techniques. This course may not be taken for credit by students in the Food Science Major. (Offered through distance education format only.)

**Prerequisite(s):** CHEM*1040, (BIOL*1040 or MICR*1020)

**Restriction(s):** FOOD*3160, FOOD*3170

**FOOD*2620 Food Engineering Principles W (3-2) [0.50]**

Introduction to engineering principles and operations in food processing including heat transfer, thermal processing, refrigeration, fluid flow, separating, mixing, size reduction and moisture modifications. Material and energy balances. Instrumentation and process control concepts.

**Prerequisite(s):** 0.50 credits in physical chemistry or biochemistry or 0.50 credits in organic chemistry beyond the 1000 level

**Restriction(s):** ENGG*2620

**FOOD*3010 Food Chemistry F (3-2) [0.50]**

A lecture course covering the fundamental principles of the chemistry of foods. The course will discuss selected topics related to the chemistry (physical, organic and analytical) and physics of food materials such as lipids, proteins, carbohydrates and water. Other topics covered include enzymes and pigments.

**Prerequisite(s):** BIOL*2580

**FOOD*3020 Food Chemistry Laboratory W (0-6) [0.50]**

An involved laboratory course on various aspects of food chemistry. Emphasis will be placed on the development of strong analytical skills. Laboratory exercises are based on topics covered in FOOD*3010.

**Prerequisite(s):** FOOD*3010

**FOOD*3070 Introduction to Food Processing F (3-3) [0.50]**

This course will introduce the basic principles of food chemistry, food microbiology, unit operations in food processing and food product development. The lectures will be supplemented with demonstration and hands-on tutorial exercises. An Experience in Agriculture module is also included in this course.

**Prerequisite(s):** AGR*1250, BIOL*1040, CHEM*1050

**Equate(s):** AGR*3330

**Restriction(s):** FOOD*2100, FOOD*2150, NUTR*2150. Registration in the B.Sc.(Agr.) program.

**FOOD*3160 Food Processing I F (3-3) [0.75]**

Processing techniques used in the food industry: pasteurization, sterilization, chilling and freezing as methods of food preservation.

**Prerequisite(s):** (FOOD*2620, MICR*2030) or ENGG*2660

**FOOD*3170 Food Processing II W (3-3) [0.50]**

Principles of food processing with special reference to concentrated, dehydrated and intermediate moisture foods.

**Prerequisite(s):** FOOD*3160

**FOOD*3230 Food Microbiology F (3-3) [0.75]**

Important groups of microorganisms associated with food spoilage, food fermentations, food infections and intoxications. Intrinsic and extrinsic factors and their relationship to microbial growth. Control of microorganisms by food processing.

**Prerequisite(s):** MICR*1020 or MICR*2030

**FOOD*3260 Industrial Microbiology W (3-3) [0.50]**

The course will present microbiological and technological principles of the industrial application of microorganisms followed by specific examples. These will include different liquid aerobic and anaerobic fermentations, such as the production of organic/amino acids, and ethanol, but excluding the dairy sector. A special focus will be given to winemaking, brewing and antibiotic production. The laboratory component of the course includes several field trips and the production of wine and antibiotics.

**Prerequisite(s):** MICR*1020 or MICR*2030

**FOOD*3430 Introduction to Food Analysis F (3-3) [0.50]**

An introduction to quantitative analysis of foods by chemical, physical and instrumental means. Determination of major and minor constituents of foods. (Offered through distance education format only.)

**Prerequisite(s):** FOOD*2400

**Restriction(s):** FOOD*4120

**FOOD*3700 Sensory Evaluation of Foods W (2-3) [0.50]**

Principles of sensory evaluation of foods and a study of the techniques employed. (Offered in odd-numbered years.)

**Prerequisite(s):** (FOOD*2150 or HAFA*2700 ), (1 of STAT*2040, STAT*2060, STAT*2080)

**FOOD*4010 Food Plant Sanitation and Quality Control W (3-0) [0.50]**

Participants will learn and apply principles of hygiene, cleaning chemistry and mechanisms, and will develop and evaluate sanitation programs for specific food processes. Graduates of this course will be able to implement sampling and statistical quality control plans and quality audits. Food Safety programs including both GMP (good manufacturing practices) and HACCP (hazard analysis and critical control point) will be developed for specific cases. A case study approach will be used. Quality management aspects of quality assurance are not included in this course. (Offered through distance education format only.)

**Prerequisite(s):** (FOOD*2150 or FOOD*2150),(1 of FOOD*2410, FOOD*3160, FOOD*3170 ), (FOOD*2420 or FOOD*3230)

**FOOD*4070 Food Packaging F (3-3) [0.50]**

Functions of packaging in food preservation systems will be examined using a review of current packaging materials, their properties, production methods and applications for specific products. Additional topics include regulatory, environmental and marketplace influences on food packaging choices. (Offered through distance education format only.)

**Prerequisite(s):** 1 of 10.00 credits in science or engineering, (FOOD*2100, FOOD*2410, FOOD*2420), instructor consent
FOOD*4090 Functional Foods and Nutraceuticals W (3-0) [0.50]
The course examines the relation of functional foods and nutraceuticals (FFN) to food and drugs. The safety and efficacy of individual FFN products, and the regulatory issues that influence the development and commercialization of FFN in global markets are emphasized. The course is co-operatively taught by the Department of Human Health and Nutritional Sciences and the Department of Food Science. (Also listed as NUTR*4090.)
Prerequisite(s): NUTR*3190 or NUTR*3210
Equating(s): NUTR*4090

FOOD*4100 Communication in Food Science II W (2-0) [0.25]
Each student will present a communication portfolio based on their proposal in FOOD*2100. Additional communication assignments and work shops will build skills in discussion leading, meeting, management, crisis management and both peer and self evaluation.
Prerequisite(s): FOOD*2100, 2.50 credits at the 3000 level in Food Science

FOOD*4110 Meat and Poultry Processing W (2-3) [0.50]
The course focuses on the principles and techniques employed by the meat industry (the largest food processing segment in Canada). Lectures include a study of muscle structure and its relation to meat quality, the physical properties of meat proteins, lipids and flavour compounds important in meat processing. Practical applications of processing techniques (including producing different products in lab) packaging and merchandizing are emphasized in the laboratory. Eggs and egg processing are also covered. Emphasis is put on learning how various food science principles (e.g. preservation, HACCP, emulsification) are used to optimize meat products' quality and safety. (Offered in odd-numbered years.)
Prerequisite(s): 1 of ANSC*2340, FOOD*3160, FOOD*3070

FOOD*4120 Food Analysis F (3-4) [0.75]
Quantitative analysis of foods by chemical and physical methods. Determination of major and minor constituents of foods.
Prerequisite(s): 0.50 credits in analytical chemistry or FOOD*3100 taken as corequisite

FOOD*4140 Communication in Food Science III S,F,W (0-2) [0.25]
This course gives the student the opportunity to integrate both communication skills and technical knowledge in Food Science acquired in earlier courses through participation in an independent experiential learning project. The topic of the project may be in any area of Food Science, but an emphasis on communication to a non-scientific audience is required. The project may be conducted in teams of up to four students. Students are required to present a concise report in a written paper and in a seminar. Students must make arrangements with both faculty supervisor and course co-ordinator in a prior course selection period.
Prerequisite(s): FOOD*2100, 2.50 credits at the 3000 level in Food Science
Restriction(s): Instructor consent required.

FOOD*4220 Topics in Food Science S,F,W (0-2) [0.25]
Independent study of a selected topic in Food Science, involving a review and critical evaluation of the current literature. The course comprises independent library research and students are required to present a concise report in a written paper and in a seminar. Students must make arrangements with both faculty supervisor and the course co-ordinator in a prior course selection period.
Prerequisite(s): 2.50 credits at the 3000 level in Food Science
Restriction(s): Instructor consent required.

FOOD*4230 Research in Food Science I S,F,W (0-2) [0.25]
Independent laboratory research of a selected topic in Food Science, under the supervision of an individual faculty. The laboratory research is based on the literature review conducted in FOOD*4220. In addition, a review and critical appraisal of experimental principles will guide the design of laboratory experiments. Students are required to present a concise report in a written paper and in a seminar. Students must make arrangements with both faculty supervisor and the course co-ordinator in a prior course selection period.
Prerequisite(s): FOOD*4220

FOOD*4240 Research in Food Science II S,F,W (0-2) [0.25]
Independent laboratory research of a selected topic in Food Science, under the supervision of an individual faculty. The laboratory research conducted in FOOD*4230 will be continued and expanded. Students are expected to demonstrate increasing independence in designing, conduction and evaluating experiments. Students are required to present a concise report in a written paper and in a seminar. Students must make arrangements with both faculty supervisor and the course co-ordinator in a prior course selection period.
Prerequisite(s): FOOD*4230

FOOD*4340 Cheese and Fermented Dairy Foods W (3-3) [0.50]
The manufacture, chemistry and microbiology of cheese and fermented dairy foods. Quality control and yield efficiency. Laboratories include manufacture of representatives from all cheese families and a variety of other fermented milk products. (Offered in even-numbered years.)
Prerequisite(s): BIOC*2580 or MICR*2030

FOOD*4400 Dairy Processing W (3-3) [0.50]
Production, processing and marketing of fluid milk and frozen dairy products and butter. Public health aspects of pasteurization, composition and formulation of mixes, and discussion of the various unit operations involved in processing of fluid products, frozen dessert products and butter. Purchase and marketing of dairy products will also be discussed. (Offered in odd-numbered years.)
Prerequisite(s): BIOC*2580, FOOD*2150

FOOD*4520 Cereal Technology W (2-3) [0.50]
The technology and chemistry of the principal cereals; kernel structure and its chemistry with respect to the technological characteristics and nutritive value. Processing of wheat, corn, sorghum, rice, oats and barley; utilization of products and by-products. Bread-making process, dough rheology and technology; breakfast cereals and protein-enriched cereal products. (Offered in even-numbered years.)
Prerequisite(s): BIOC*2580

FOOD*4700 Food Product Development W (2-3) [0.50]
The course examines the research and development processes related to food products. Technological developments affecting food product development will be examined. Experience in planning, conducting, and communicating results as a team working on developing a food product.
Prerequisite(s): FOOD*3100
### French Studies

**School of Languages and Literatures.**

The School reserves the right to determine the appropriate level to be taken by students enrolling in language courses. With the exception of FREN*1000, literary texts are, at all levels, studied in French. Students registering in these courses will be expected to have the appropriate language proficiency.

Francophone students and Graduates of Highschool French Immersion will not normally be admitted into FREN*1200 and FREN*2030. It is recommended they start their program with FREN*2020, FREN*2060, FREN*2500, or FREN*2520 with the approval of the Faculty Advisor.

**FREN*1000 Understanding the French Speaking World F (3-0) [0.50]**

A course taught in English which introduces students to French culture as it manifests itself in France, Quebec, the rest of North America, Africa, and the West Indies. Historical, linguistic and socio-political issues will be examined within the broader context of culture.

**FREN*1090 Basic French: Reading S,F,W (3-0) [0.50]**

A basic course in French grammar and reading for students who have up to Ontario Grade 9 French (or equivalent) but not above. FREN*1090 cannot be counted toward a specialization in French. (Offered through distance education only.)

**Restriction(s):** Francophones and French immersion students will not be admitted to this course. Instructor consent required to verify student's level.

**FREN*1100 Basic French: Listening S,F,W (3-0) [0.50]**

A basic course in French grammar with emphasis on listening skills for students who have up to Grade 10 French (or equivalent) but not above. FREN*1100 cannot be counted toward a specialization in French. (Offered through distance education format only.)

**Restriction(s):** Francophones and French immersion students will not be admitted to this course. Instructor consent required to verify student's level.

**FREN*1110 Elementary French F (3-1) [0.50]**

A review course in French grammar, oral and written skills for students who have Ontario Grade 11 French or equivalent but not above. FREN*1110 cannot be counted toward a specialization in French.

**Restriction(s):** Francophones and French immersion students will not be admitted to this course. Instructor consent required to verify student's level.

**FREN*1120 Basic French: Writing S,W (3-0) [0.50]**

A basic course in French grammar with emphasis on writing skills for students who have up to Grade 11 French (or equivalent) but not above. FREN*1120 cannot be counted toward a specialization in French. (Offered through distance education format only.)

**Restriction(s):** Francophones and French immersion students will not be admitted to this course. Instructor consent required to verify student's level.

**FREN*1200 French Language I F,W (3-1) [0.50]**

A first year, university-level course for students graduating with a high-school background in core French. Practice in written and oral French.

**Prerequisite(s):** 1 of FREN*1100, Grade 12U French or permission of the School

**Restriction(s):** Francophones and French immersion students will not be admitted to this course. Instructor consent required to verify student's level.

**FREN*2020 France: Literature and Society F,W (3-1) [0.50]**

An introduction to French life and thought as seen through literature and art. Lectures and small seminars are integrated into a multi-media presentation including videotapes, slides and audio tapes.

**Prerequisite(s):** FREN*1200 or FREN*2030

**FREN*2030 French Language II F,W (3-1) [0.50]**


**Prerequisite(s):** Francophones students will not normally be admitted to this course.

**FREN*2060 Quebec: Literature and Society F,W (3-1) [0.50]**

An historical introduction to Quebec life and thought from New France to the present as seen through literature and art. Lectures and small seminars are integrated into a multi-media presentation including videotapes, slides and audio tapes.

**Prerequisite(s):** FREN*1200 or FREN*2030

**FREN*2500 French Translation I S,W (3-0) [0.50]**

An introduction to the art and techniques of French-English translation. (Also offered through distance education format.)

**Prerequisite(s):** FREN*2030

**FREN*2520 French Composition I F (3-0) [0.50]**

Essay writing and textual analysis.

**Prerequisite(s):** FREN*2030

**FREN*2540 Spoken French: Theory and Practice W (3-1) [0.50]**

A course focusing on the differences between written and spoken French and designed to help students function efficiently in an oral French context (comprehension and expression). Francophones will normally not be admitted to this course.

**Prerequisite(s):** FREN*2030

**FREN*3000 Romanticism and Realism in France F (3-0) [0.50]**

A seminar on the 19th-century novel emphasizing themes and ideas which have contributed to contemporary literature and thought.

**Prerequisite(s):** FREN*2020, FREN*2030

**FREN*3010 Twentieth-Century French Novel W (3-0) [0.50]**

A changing world as perceived by 20th-century writers in France. From Gide to post-modernism, the impact of renewed scientific perspectives on literature, and the questioning of modes of representation, signs and society. (Offered in even-numbered years.)

**Prerequisite(s):** FREN*2020, FREN*2030

**FREN*3020 Twentieth-Century French Theatre F (3-0) [0.50]**

Twentieth-century drama: Sartre, Beckett, Ionesco and more recent dramatists. (Offered in odd-numbered years.)

**Prerequisite(s):** FREN*2020, FREN*2030

**FREN*3070 Enlightenment and Crisis F (3-0) [0.50]**

Prosé literature in the 18th century; the questioning of traditional values. The road to revolution.

**Prerequisite(s):** FREN*2020, FREN*2030

**FREN*3150 Children's Literature in French F (3-0) [0.50]**

A study of children's literature in the francophone world from the 17th century to the present.

**Prerequisite(s):** FREN*2020, FREN*2030

**FREN*3200 Quebec Novel F (3-0) [0.50]**

A survey of representative Quebec novels from World War II to the Quiet Revolution. A seminar and lecture course.

**Prerequisite(s):** FREN*2030, FREN*2060

**FREN*3210 Quebec Theatre W (3-0) [0.50]**

A survey of recent trends in Quebec drama and readings from representative works by Quebecois playwrights. A seminar and lecture course. (Offered in odd-numbered years.)

**Prerequisite(s):** FREN*2030, FREN*2060

**FREN*3220 Recent Quebec Writing W (3-0) [0.50]**

An analysis of representative contemporary Quebec novels, short stories and poems from aesthetic, thematic and ideological points of view. (Offered in even-numbered years.)

**Prerequisite(s):** FREN*2030, FREN*2060

**FREN*3230 The Structure of French F (3-0) [0.50]**

Elements of the sound system, grammar and vocabulary of contemporary French.

**Prerequisite(s):** FREN*2030

**FREN*3240 French Classicism W (3-0) [0.50]**

Human destiny in 17th-century drama.

**Prerequisite(s):** FREN*2020, FREN*2030

**FREN*3290 Post-colonial Francophone Fiction W (3-0) [0.50]**

An introduction to 20th century Francophone writers from Maghreb, Black Africa and the Caribbean, through the study of selected works. (Offered in even-numbered years.)

**Prerequisite(s):** FREN*2020, FREN*2030

**FREN*3300 Perspectives of French and Quebecois Literature S,F,W (3-0) [0.50]**

Treatment of a certain theme or area of interest such as: regionalism, feminism, France and Quebec in the world, politics and polemics, popular literature in France, and Quebec humour. Content will vary from semester to semester.

**Prerequisite(s):** 1 of FREN*2020, FREN*2030, FREN*2060

**FREN*3310 Perspectives of French and Quebecois Literature S,F,W (3-0) [0.50]**

Treatment of a certain theme or area of interest such as: regionalism, feminism, France and Quebec in the world, politics and polemics, popular literature in France, and Quebec humour. Content will vary from semester to semester.

**Prerequisite(s):** 1 of FREN*2020, FREN*2030, FREN*2060
FREN*3320 Perspectives of French and Quebecois Literature S,F,W (3-0) [0.50]
Treatment of a certain theme or area of interest such as: regionalism, feminism, France and Quebec in the world, politics and polemics, popular literature in France, and Quebec humour. Content will vary from semester to semester.
Prerequisite(s): 1 of FREN*2020, FREN*2030, FREN*2060

FREN*3330 Perspectives of French and Quebecois Literature S,F,W (3-0) [0.50]
Treatment of a certain theme or area of interest such as: regionalism, feminism, France and Quebec in the world, politics and polemics, popular literature in France, and Quebec humour. Content will vary from semester to semester.
Prerequisite(s): 1 of FREN*2020, FREN*2030, FREN*2060

FREN*3340 Perspectives of French and Quebecois Literature S,F,W (3-0) [0.50]
Treatment of a certain theme or area of interest such as: regionalism, feminism, France and Quebec in the world, politics and polemics, popular literature in France, and Quebec humour. Content will vary from semester to semester.
Prerequisite(s): 1 of FREN*2020, FREN*2030, FREN*2060

FREN*3350 Perspectives of French and Quebecois Literature S,F,W (3-0) [0.50]
Treatment of a certain theme or area of interest such as: regionalism, feminism, France and Quebec in the world, politics and polemics, popular literature in France, and Quebec humour. Content will vary from semester to semester.
Prerequisite(s): 1 of FREN*2020, FREN*2030, FREN*2060

FREN*3360 Perspectives of French and Quebecois Literature S,F,W (3-0) [0.50]
Treatment of a certain theme or area of interest such as: regionalism, feminism, France and Quebec in the world, politics and polemics, popular literature in France, and Quebec humour. Content will vary from semester to semester.
Prerequisite(s): 1 of FREN*2020, FREN*2030, FREN*2060

FREN*3370 Perspectives of French and Quebecois Literature S,F,W (3-0) [0.50]
Treatment of a certain theme or area of interest such as: regionalism, feminism, France and Quebec in the world, politics and polemics, popular literature in France, and Quebec humour. Content will vary from semester to semester.
Prerequisite(s): 1 of FREN*2020, FREN*2030, FREN*2060

FREN*3380 Perspectives of French and Quebecois Literature S,F,W (3-0) [0.50]
Treatment of a certain theme or area of interest such as: regionalism, feminism, France and Quebec in the world, politics and polemics, popular literature in France, and Quebec humour. Content will vary from semester to semester.
Prerequisite(s): 1 of FREN*2020, FREN*2030, FREN*2060

FREN*3390 Perspectives of French and Quebecois Literature S,F,W (3-0) [0.50]
Treatment of a certain theme or area of interest such as: regionalism, feminism, France and Quebec in the world, politics and polemics, popular literature in France, and Quebec humour. Content will vary from semester to semester.
Prerequisite(s): 1 of FREN*2020, FREN*2030, FREN*2060

FREN*3500 French Translation II F (3-0) [0.50]
Contrastive grammar (French and English). Analysis of various styles and their application to written translation. Small discussion groups.
Prerequisite(s): FREN*2030, FREN*2500

FREN*3520 French Composition II W (3-0) [0.50]
A continuation of FREN*2520 with special emphasis on stylistics.
Prerequisite(s): FREN*2030, FREN*2520

FREN*3530 Business French F (3-0) [0.50]
This course is a detailed study of the French language as it is currently used in administration and business, both in France and Quebec. It will cover areas such as advertising, administrative reports, employment, communication and levels of language.
Prerequisite(s): FREN*2030

FREN*3560 Contemporary French Women's Writings W (3-0) [0.50]
A study of the main trends in women's writings and feminist criticism in contemporary France. (Offered in odd-numbered years.)
Prerequisite(s): FREN*2020, FREN*2030

FREN*3610 Studies in French Literature and Culture in Nice F,W (3-0) [0.50]
Thematic courses relating to the literature, arts, and society of metropolitan France and of the Francophone world. Options may include other languages, literatures, and other disciplines in the arts and social sciences. For Nice students only.
Prerequisite(s): 1 of FREN*2020, FREN*2030, FREN*2060
Restriction(s): Admission to Nice Program.

FREN*3620 Studies in French Literature and Culture in Nice F,W (3-0) [0.50]
Thematic courses relating to the literature, arts, and society of metropolitan France and of the Francophone world. Options may include other languages, literatures, and other disciplines in the arts and social sciences. For Nice students only.
Prerequisite(s): 1 of FREN*2020, FREN*2030, FREN*2060
Restriction(s): Admission to Nice Program.

FREN*3630 Studies in French Literature and Culture in Nice F,W (3-0) [0.50]
Thematic courses relating to the literature, arts, and society of metropolitan France and of the Francophone world. Options may include other languages, literatures, and other disciplines in the arts and social sciences. For Nice students only.
Prerequisite(s): 1 of FREN*2020, FREN*2030, FREN*2060
Restriction(s): Admission to Nice Program.

FREN*3640 Studies in French Literature and Culture in Nice F,W (3-0) [0.50]
Thematic courses relating to the literature, arts, and society of metropolitan France and of the Francophone world. Options may include other languages, literatures, and other disciplines in the arts and social sciences. For Nice students only.
Prerequisite(s): 1 of FREN*2020, FREN*2030, FREN*2060
Restriction(s): Admission to Nice Program.

FREN*3650 Studies in French Literature and Culture in Nice F,W (3-0) [0.50]
Thematic courses relating to the literature, arts, and society of metropolitan France and of the Francophone world. Options may include other languages, literatures, and other disciplines in the arts and social sciences. For Nice students only.
Prerequisite(s): 1 of FREN*2020, FREN*2030, FREN*2060
Restriction(s): Admission to Nice Program.

FREN*3660 Studies in French Literature and Culture in Nice F,W (3-0) [0.50]
Thematic courses relating to the literature, arts, and society of metropolitan France and of the Francophone world. Options may include other languages, literatures, and other disciplines in the arts and social sciences. For Nice students only.
Prerequisite(s): 1 of FREN*2020, FREN*2030, FREN*2060
Restriction(s): Admission to Nice Program.

FREN*3670 Studies in French Literature and Culture in Nice F,W (3-0) [0.50]
Thematic courses relating to the literature, arts, and society of metropolitan France and of the Francophone world. Options may include other languages, literatures, and other disciplines in the arts and social sciences. For Nice students only.
Prerequisite(s): 1 of FREN*2020, FREN*2030, FREN*2060
Restriction(s): Admission to Nice Program.

FREN*3680 Studies in French Literature and Culture in Nice F,W (3-0) [0.50]
Thematic courses relating to the literature, arts, and society of metropolitan France and of the Francophone world. Options may include other languages, literatures, and other disciplines in the arts and social sciences. For Nice students only.
Prerequisite(s): 1 of FREN*2020, FREN*2030, FREN*2060
Restriction(s): Admission to Nice Program.

FREN*4050 Early Modern French Culture W (3-0) [0.50]
A study of the literature and culture of Medieval and Renaissance France (1200-1600), from the chivalric and religious writings to humanist thought and early French feminism. (Offered in odd-numbered years.)
Prerequisite(s): FREN*2020, FREN*2030, FREN*3520

FREN*4300 Symbolist and Surrealist Poetry W (3-0) [0.50]
The French Symbolists of the 19th century. The 20th century Surrealist poets' vision of the world. (Offered in even-numbered years.)
Prerequisite(s): FREN*2020, FREN*2030, FREN*3520

FREN*4520 French Translation III F (3-0) [0.50]
A contrastive analysis of French and English stylistic resources, with application to English-French translation. (Offered in odd-numbered years.)
Prerequisite(s): FREN*2030, FREN*2500, FREN*3500
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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Cr/ECTS</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>FREN*4600</td>
<td>Honours Seminar in French and Quebecois Studies</td>
<td>F (3-0) [0.50]</td>
<td>Seminar on literary genres, movements and themes, or on the French language. (Offered in even-numbered years.)&lt;br&gt;Prerequisite(s): FREN<em>2020, FREN</em>2030, FREN<em>2060, FREN</em>3520</td>
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<tr>
<td>FREN*4610</td>
<td>Honours Seminar in French and Quebecois Studies</td>
<td>F (3-0) [0.50]</td>
<td>Seminar on literary genres, movements and themes. (Offered in even-numbered years.)&lt;br&gt;Prerequisite(s): FREN<em>2020, FREN</em>2030, FREN<em>2060, FREN</em>3520</td>
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<tr>
<td>FREN*4620</td>
<td>Honours Seminar in French and Quebecois Studies</td>
<td>F (3-0) [0.50]</td>
<td>Seminar on literary genres, movements and themes. (Offered in even-numbered years.)&lt;br&gt;Prerequisite(s): FREN<em>2020, FREN</em>2030, FREN<em>2060, FREN</em>3520</td>
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<tr>
<td>FREN*4630</td>
<td>Honours Seminar in French and Quebecois Studies</td>
<td>F (3-0) [0.50]</td>
<td>Seminar on literary genres, movements and themes. (Offered in even-numbered years.)&lt;br&gt;Prerequisite(s): FREN<em>2020, FREN</em>2030, FREN<em>2060, FREN</em>3520</td>
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<tr>
<td>FREN*4640</td>
<td>Honours Seminar in French and Quebecois Studies</td>
<td>F (3-0) [0.50]</td>
<td>Seminar on literary genres, movements and themes. (Offered in even-numbered years.)&lt;br&gt;Prerequisite(s): FREN<em>2020, FREN</em>2030, FREN<em>2060, FREN</em>3520</td>
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<tr>
<td>FREN*4650</td>
<td>Honours Seminar in French and Quebecois Studies</td>
<td>F (3-0) [0.50]</td>
<td>Seminar on literary genres, movements and themes. (Offered in even-numbered years.)&lt;br&gt;Prerequisite(s): FREN<em>2020, FREN</em>2030, FREN<em>2060, FREN</em>3520</td>
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<tr>
<td>FREN*4740</td>
<td>Research Paper in French Studies I</td>
<td>S,F,W (3-0) [0.50]</td>
<td>A research paper in French on an approved topic in French literature or language. Individual attention will be given on methods of research and techniques of writing. This course will be the equivalent of a semester course and is intended to serve as an introduction to future research at the M.A. and Ph.D. levels.&lt;br&gt;Prerequisite(s): FREN<em>2020, FREN</em>2030, FREN<em>2060, FREN</em>3520, 70% average in all French Studies course attempts. Recommendations: Students with less than a 75% average are advised not to take this course.&lt;br&gt;Restriction(s): Instructor consent required.</td>
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<tr>
<td>FREN*4750</td>
<td>Creative Writing in French</td>
<td>S,F,W (3-0) [0.50]</td>
<td>The development and revision of a major work of creative writing in French (fiction, poetry, or drama), under the supervision of a faculty member.&lt;br&gt;Prerequisite(s): (FREN<em>2020 or FREN</em>2060), FREN<em>2030, FREN</em>3520, FREN*4740, 70% average in all French Studies course attempts. Recommendations: Students with less than a 75% average are advised not to take this course.&lt;br&gt;Restriction(s): Instructor consent required.</td>
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<tr>
<td>FREN*4770</td>
<td>Research Paper in French Studies II</td>
<td>S,F,W (3-0) [0.50]</td>
<td>Same as FREN<em>4740: Research Paper in French Studies I&lt;br&gt;Prerequisite(s): FREN</em>2020, FREN<em>2030, FREN</em>2060, FREN<em>3520, FREN</em>4740, 70% average in all French Studies course attempts. Recommendations: Students with less than a 75% average are advised not to take this course.&lt;br&gt;Restriction(s): Instructor consent required.</td>
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<tr>
<td>FREN*4900</td>
<td>Applied Linguistics: French Studies</td>
<td>W (3-0) [0.50]</td>
<td>A course specially designed for future teachers of French, in which the principles of linguistics are applied to the teaching of French. (Offered in even-numbered years.)&lt;br&gt;Prerequisite(s): FREN<em>2030, (FREN</em>3230 or LING*1000), or permission of the department</td>
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Geography

Department of Geography.

Students majoring in other departments may take a number of Geography courses without the prerequisites listed below if they obtain the permission of the instructor.

Note: Several courses in Geography are listed as acceptable for the Natural and Mathematical Science B.A. Distribution Requirements or as Non-Science Electives for B.Sc. students.

For courses without a semester designation, or with an alternate year designation, please check with the department.

GEOG*1200 Society and Space F,W (3-0) [0.50]
This course introduces key concepts in contemporary Human Geography. The course applies a spatial perspective in exploring a wide ranging series of processes and issues in society. Topics include population growth and migration, models and challenges of urban and rural development, interpretation of cultural landscapes and selected issues relating to social welfare. (Also offered through distance education format.)

GEOG*1220 Human Impact on the Environment F,W (3-0) [0.50]
A global overview of the changing relationships among society, technology and the environment. This course emphasizes the major stages of human use of resources and the environmental consequences of global changes in production systems. It contrasts Third and First World experiences, focusing on core-periphery relationships. (Also offered through distance education format.)

GEOG*1300 Introduction to the Biophysical Environment F,W (3-2) [0.50]
An introduction to Physical Geography. The principles and processes governing climate-landform-soil-vegetation systems and interrelationships. Natural and human-induced changes to environmental systems. Laboratories will address techniques of measurement, representation and analysis of environmental systems through maps, air photographs, remote sensing and field observations. (Also offered through distance education format.)
Restriction(s): GEOG*1350

GEOG*1350 Earth: Hazards and Global Change F,W (3-0) [0.50]
An introduction to the principles and processes governing climate-landform-soil-vegetation systems. Emphasis is placed on the interrelationships between human and environmental systems through the examination of natural hazards and global climate change.
Restriction(s): GEOG*1300

GEOG*2000 Geomorphology F (3-2) [0.50]
An introduction to geomorphology emphasizing weathering, slope and fluvial processes within drainage basins, and glacial and periglacial processes. Application of field and laboratory techniques.
Prerequisite(s): 1 of GEOG*1300, GEOG*1350, GEOL*1000, GEOL*1100

GEOG*2030 International Political Geography F (3-0) [0.50]
Examination of the changing world political map from the perspective of national and ethnic identities, their territorial attachments and intra- and inter-state structures and processes. Territorial restructuring, international law, localization and globalization are considered. Particular attention is paid to settlement and development processes and strategies in various parts of the world.
Prerequisite(s): 5.00 credits, GEOG*1220 is recommended

GEOG*2110 Climate and the Biophysical Environment W (3-1) [0.50]
The interrelationships between the atmosphere, lithosphere, hydrosphere, and biosphere to produce distinct physical landscapes (climates, soils, vegetation). Emphasis on the role of climate and the flows of energy, water, and biogeochemicals.
Prerequisite(s): GEOG*1300 or GEOG*1350

GEOG*2210 Environment and Resources W (3-0) [0.50]
This course examines the interrelationships between people and biophysical processes. The main themes are: 1) characteristics of natural resources and processes through which they are developed and used and 2) human response to environmental conditions, including natural hazards and global change. Contemporary Canadian case studies will be presented at the regional and national scales. (Also offered through distance education format.)
Prerequisite(s): GEOG*1220 is recommended

GEOG*2230 Economic Geography F (3-0) [0.50]
An introduction to the spatial distribution of economic activity. The course examines patterns, processes and problems in extractive activities, manufacturing, marketing and the service sector, including the transportation of commodities and people. The principles of economic location are applied to regional economic analysis and development.
Prerequisite(s): GEOG*1200

GEOG*2260 Applied Social Geography W (3-2) [0.50]
This course focuses on the study of social relations and the spatial structures that underpin those relations. It introduces students to a range of topics in social geography, including housing, crime, social justice, difference and identity politics, social constructions of nature, and cultural landscapes. The course uses these topics as a springboard for exploration and application of key research methods and techniques in human geography. The lab component of the course focuses on data collection and analysis using social survey methods, interviewing techniques, ethnographic field study, and use of published data and secondary documents.
Prerequisite(s): GEOG*1200

GEOG*2420 Aerial-photo Interpretation F (2-3) [0.50]
An introduction to the principles and techniques of air photo interpretation and elementary photogrammetry. Topics include stereoscopic viewing, parallax, flightline planning, and mapping from air photos. Lab exercises focus on specific applications in natural habitats and in rural and urban settings.
Prerequisite(s): 0.50 credits in geography and/or earth science

GEOG*2460 Analysis in Geography F (3-2) [0.50]
The application of modern techniques to geographic study. The interpretation of geographic phenomena by objective methods. Major honors students in Geography must complete this course by the end of semester 4.
Prerequisite(s): 0.50 credits at the 1000 level in Geography

GEOG*2480 Mapping and GIS W (3-2) [0.50]
An introduction to the theory and techniques of manipulating and displaying spatial data in a GIS (Geographic Information System). Mapping concepts such as scale, co-ordinate systems, map projections, symbolization and vector data encoding are introduced. Major honors students in Geography must complete this course by the end of semester 4.
Prerequisite(s): 5.00 credits

GEOG*2510 Canada: A Regional Synthesis W (3-0) [0.50]
This course is designed to provide a better understanding of the nature and basis of Canadian regionalism. The first section of the course stresses the biophysical base and the inequality of the natural resource endowment. The historical geographic approach and the systematic overviews of contemporary Canada stress respectively the development and nature of the Canadian space-economy. The final section on regions, regionalism and nationalism provides an overview of the heartland-hinterland dichotomy and centrifugal and centripetal forces operative in the nation.

GEOG*2900 Development and the City W (3-0) [0.50]
A course designed to develop an understanding of the urban form and processes of urban development and growth. Emphasis is placed on the interaction between water and sediment movement and channel morphology. Case studies of human impact on river systems are presented.
Prerequisite(s): GEOG*2000, (GEOG*2460 or STAT*2040)

GEOG*3020 Global Environmental Change F (3-1) [0.50]
Major global environmental issues examined include climate change, deforestation, desertification and global fisheries. This course is interdisciplinary, exploring the interactions of bio-physical processes with human socio-economic dynamics, including policy initiatives. Particular attention is given to global climate change, its causes, its nature and extent, its implications for ecosystems and societies, and its policy ramifications. (Also offered through distance education format.)
Prerequisite(s): 7.50 credits, (GEOG*2210 recommended)

GEOG*3050 Development and the City W (3-0) [0.50]
This course examines different theoretical and policy perspectives of urbanization and urban development, as well as social, economic and environmental living conditions in cities of the global "south". It refers to concrete examples of cities in their national and international context, paying due attention to diversity and the fluidity of urban-rural boundaries. Specific urban development issues, including migration, housing, employment, health and environment are also addressed.
Prerequisite(s): 7.50 credits, (GEOG*2030 and GEOG*2260 recommended)

GEOG*3090 Gender and Environment F (3-0) [0.50]
This course applies feminist scholarship and perspectives to explore men and women's experiences with both the natural and built environment. The course draws on case studies from developing and developed countries to demonstrate the importance of gender difference in understanding human interactions with the environment. Students will observe gendered use, access, knowledge, responsibility and control in rural and urban landscapes. The course highlights the practical implications of gendered environments for development and planning initiatives.
Prerequisite(s): 7.50 credits, (GEOG*2210 and GEOG*2260 recommended)
GEOG*3110 Biotic and Natural Resources F (2-2) [0.50]
This course focuses on the ecological basis for resource management, evaluates a number of current ecological theories and addresses their implications for resource management.
Prerequisite(s): (GEOG*2460 or STAT*2040), (1 of BIOL*2060, BOT*2050, ENVB*2030, GEOG*2110)

GEOG*3210 Management of the Biophysical Environment F (3-0) [0.50]
An examination of resource management, focusing on public and private decision-making processes. Consideration of techniques for evaluating resources, including EIA and risk analysis. Emphasis is on the economic, social and environmental implications of resource development and use. Contemporary Canadian case studies will be presented at appropriate scales. (Also offered through distance education format.)
Prerequisite(s): 7.50 credits including GEOG*2210

GEOG*3220 Agriculture and Society F (3-0) [0.50]
This course adopts a geographical perspective in exploring the structure and functioning of agriculture and food systems in contemporary society. Particular attention is paid to the interaction of farms with the social, economic, institutional and environmental forces that combine to shape local types and regional patterns of agricultural activity. The concept of sustainability is used as an integrating theme for the consideration of selected issues.
Prerequisite(s): 7.50 credits

GEOG*3420 Remote Sensing of the Environment W (2-3) [0.50]
This course focuses on the use of raster and vector-based geographic information systems to analyze spatial data. Topics include map digitizing, data query and overlay, spatial interpolation, multi-criteria evaluation, least cost path way determination and digital elevation models. This course requires some familiarity with numerical methods and computer operations.
Prerequisite(s): 10.00 credits, including GEOG*2480

GEOG*3490 Tourism and Environment W (3-0) [0.50]
An integrative perspective on tourism, addressing diverse interactions between people and tourist resources. Emphasis is on experiences derived from the use of resources, the environmental, economic and cultural impacts of tourism, and approaches to managing these impacts. (Also offered through distance education format.)
Prerequisite(s): 7.50 credits

GEOG*3600 Geography of a Selected Region U (3-0) [0.50]
The study of an area which will include topics in physical, economic, social and historical aspects of geography.
Prerequisite(s): 7.50 credits

GEOG*3610 Environmental Hydrology W (3-1) [0.50]
An introductory course in hydrology, the study of water in the environment. Emphasis is placed on understanding and modeling the hydrologic cycle. Topics include hydrologic processes, water resources, and case studies of freshwater systems.
Prerequisite(s): 7.50 credits, (GEOG*2460 or STAT*2040), (1 of GEOG*2000, GEOG*2110, or another 2000 level earth science or engineering science course is recommended)

GEOG*3620 Desert Environments F (2-2) [0.50]
This course investigates the interrelationships among various biophysical processes that control weathering rates, sediment transport and landform/landscape development in arid environments. Topics will include: the concept of desertification, use and misuse of surface and ground water, salinization and the effect of human disturbance on landscape development. (Offered in even numbered years.)
Prerequisite(s): 7.50 credits, (GEOG*2460 or STAT*2040), (1 of GEOG*2000, GEOG*2110, or another 2000 level earth science or engineering science course is recommended)

GEOG*4110 Environmental Systems Analysis F (2-2) [0.50]
An integrated systems approach to solving issues of environmental evaluation, impact and development. Focus will be on the biophysical components of the environment.
Prerequisite(s): GEOG*3110 or GEOG*3610

GEOG*4150 Sedimentary Processes W (2-2) [0.50]
This course examines the basic properties and flow characteristics of fluids that control the entrainment and transport of sediment by air and water. Bedform development in fluvial, coastal and aeolian environments are also discussed in relation to fluid flow mechanics. Lectures are complemented by weekly labs using the wind tunnel, flame and wave tank.
Prerequisite(s): GEOG*3000

GEOG*4200 Seminar in Urban Geography W (3-0) [0.50]
Many of the traditional features of cities are changing in light of powerful forces of globalization. The course examines spatial patterns and processes of economic restructuring, social dynamics and political change in Canadian and non-Canadian cities. Students discuss and interpret evolving urban forms from a geographical perspective.
Prerequisite(s): GEOG*2260, GEOG*3050 recommended
Restriction(s): GEOG*3400

GEOG*4210 Environmental Resource Analysis F (3-1) [0.50]
This course provides an opportunity for advanced studies in resource and environmental management. A central aim is developing an understanding of principles, practices and emerging issues relating to resource and environmental evaluation and management.
Prerequisite(s): GEOG*3210

GEOG*4250 Coastal Processes F (2-2) [0.50]
This course examines the geomorphological processes and associated landforms found in the coastal zone. Initially the focus is on developing an understanding of the major controls on coastal erosion and sediment transport, including waves, nearshore currents and water level fluctuations. This is followed by the study of features and processes in selected coastal environments such as beaches, barrier islands and spits, coastal sand dunes and bluff coasts. In each case applications to problems of coastal management are introduced.
Prerequisite(s): 1 of GEOG*3000, GEOG*3610, GEOG*3620

GEOG*4390 Seminar in Rural Geography F (3-0) [0.50]
This course surveys themes and issues in contemporary rural geography. Specific attention will be given to the processes of restructuring and change in rural systems in Canada and other developed economies. Themes include transformations in the use of rural land, the new rural economy, restructuring in service delivery, and the sustainability of rural communities and systems.
Prerequisite(s): GEOG*2260, GEOG*3320

GEOG*4480 Applied Geographic Information Systems W (2-2) [0.50]
This course adopts a project-oriented approach to the application of Geographic Information Systems (GIS) in spatial analysis. Students will have the opportunity to design and implement a research project using GIS techniques to investigate a problem in any area of Geography.
Prerequisite(s): GEOG*3480

GEOG*4690 Geography Field Research F (3-6) [1.00]
This course provides an opportunity for senior students to develop skills in the design, implementation and presentation of a field research project. The course involves a field trip of about 10-14 days, either in Canada or abroad. This component of the course takes place between the end of the summer session and the start of classes in the fall semester. Classes during the fall semester focus on the analysis and interpretation of data and incorporate student research seminars. Information on the location and cost of the field research course is available from the department in the winter semester prior to each fall offering.
Prerequisite(s): 12.50 credits
Restriction(s): Restricted to majors in Geography B.A. and B.Sc.(Env.) and in Earth Surface Science (B.Sc.) with an overall average of at least 70% at the time of registration.

GEOG*4880 Contemporary Geographic Thought W (3-0) [0.50]
A critical overview of the evolution and current status of Geography. Particular emphasis will be given to the variety of approaches and convergence and divergence within the discipline. The interaction between human and physical geographers and their approaches to issues and the subject will be analyzed.
Restriction(s): Restricted to major honours students in Geography at semester 6 or above.

GEOG*4990 Independent Study in Geography U (3-0) [0.50]
The independent study option is designed to provide senior undergraduate students with an opportunity to pursue library or field research under faculty supervision and to prepare a research report. Formal agreement between the student and the faculty supervisor is required, as is approval of the department chair.
Restriction(s): Restricted to majors in Geography B.A. and B.Sc.(Env.) and in Earth Surface Science (B.Sc.) with an overall average of at least 70% at the time of registration.
Geology

Department of Land Resource Science.

GEOL*1050 Geology and the Environment F,W (2-3) [0.50]
Geological materials, their origin, recognition and economic potential, use and location, oil and gas, coal, mineral deposits, aggregate resources, groundwater, Geological basis for environmental evaluation and land use. Emphasis on local and North American examples.

GEOL*1100 Principles of Geology F,W (3-0) [0.50]
Introduction to geological principles, their historical development and application to interpreting Earth materials and processes. Suitable for those wishing a general knowledge of earth sciences. (Also offered through distance education format.)

GEOL*2020 Stratigraphy F (3-0) [0.50]
Principles of recognizing and interpreting Earth surface environments using examples from geology, geomorphology and archeology. Brief summary of sediment identification, recognition of processes and environments. Section description and interpretation followed by principles of physical correlation and facies interpretation. Concepts of physical, biological and radiometric dating. Controls on stratigraphic sequence development - isotasy, eustasy and tectonics. Sedimentary basin development, interpretation and history including changes in atmosphere, hydrosphere and biosphere. (Offered in even-numbered years.)

GEOL*2110 Earth Material Science F (3-3) [0.50]
Minerals are the building blocks of rocks, and rocks are the basis of the earth’s crust. The nature, classification and recognition of the common rocks and minerals and their chemical and physical transformations is dealt with. Emphasis is on the role that minerals and rocks play in determining the abiotic character of earth-surface environments.

GEOL*2160 Glacial Geology W (3-0) [0.50]
Identical to GEOL*2200 but without laboratory. Lectures taken with GEOL*2200.

GEOL*2200 Glacial Geology W (3-3) [0.50]
This course is designed to give students an introduction to the processes, landforms and deposits of glacial environments. This includes basic principles of glaciology, the landforms and deposits found in various glacial and periglacial environments, and the nature of past glaciations in Earth history. Ancient to recent glacial deposits from the Great Lakes region and other international locations will be examined. A field trip will be scheduled.

GEOL*2250 Geology of Natural Disasters S (3-0) [0.50]
This course will offer insight into the mechanisms of natural geological disasters and their effects on Planet Earth, human civilization and life in general. Events before, during and after geological disasters such as earthquakes, volcanic eruptions, meteorite impact and climate change will be the focus of this course. This course will not count as a science credit for B.Sc. students. (Offered through distance education format only) (First offering Summer 2005.)

GEOL*3060 Groundwater W (3-0) [0.50]
To obtain a general understanding of the physical and chemical processes that operate in the groundwater zone under natural and human-induced conditions. The interrelations between the groundwater regime and the other components of the hydrological cycle. Considerable emphasis is placed on the applied aspects of topics such as exploration, testing and development of aquifers for water supply, the chemical quality of groundwater, and the hydrogeological aspects of waste disposal.

GEOL*3090 Applied Structural Geology W (3-0) [0.50]
Systematic study of structural elements of the earth crust. Introduces concepts on the distribution, origin and structural development of the major landforms in North America and other continents (plate tectonics). The course provides examples of structural geology applied to engineering, environmental geology, and ore geology. Hands-on experience on deformation analysis, slope stability and interpretation of structures during the field trip and in classroom simulations. (Offered in odd-numbered years.)

GEOL*3100 Non-Renewable Earth Resources W (3-0) [0.50]
An analysis of processes leading to formation and accumulation of principal non-renewable metallic and non-metallic mineral and fuel resources. Methods of extraction and processing, economic assessment, environment problems associated with resource development. Field trips may be scheduled. (Offered in even-numbered years.)

GEOL*3120 Paleontology W (3-0) [0.50]
Basic principles of analysis of fossil communities (mostly marine). Students should already know the basic biology of common marine invertebrates. Sediment analysis and process interpretation to determine paleoenvironments. Analysis of fossil preservation, autoecology and population structures of species; community paleoecology of selected fossil assemblages. Simple paleobiogeography and basics of community evolution through time. Stages in the evolution of marine and continental ecosystems possible causes including physical (sea-levels, meteorite impacts) and biological (predation, evolution) components. This is not a ‘history of life’ course. (Offered in even-numbered years.)

GEOL*3130 Agrogeology W (3-0) [0.50]
Inter-disciplinary course: geology; soil, crop and horticultural sciences; international development. The geological basis of farming, application of agrominerals, such as phosphates, limestones, gypsums, as well as fertilizers in agriculture and horticulture. Evaluating the environmental effects of mining/processing of agrominerals and the use of fertilizers. Case studies and experiences from around the world.

GEOL*3190 Environmental Water Chemistry F (3-0) [0.50]
An examination of the chemical composition of both natural and contaminated waters at the earth’s surface and the interaction of these waters with soils and sediments. The significance of these interactions will be studied with respect to the mobility of organic and metallic contaminants in geochemical cycles and as contaminants in the environment.

GEOL*3250 Field Methods in Geosciences F (2-2) [0.50]
This course is designed to provide experience in field methods and applied aspects of Earth surface science. The field camp portion will focus on geological mapping skills, while the rest of the term will be spent on developing a consulting proposal for a field-based project. Other topics covered will be project design, proposal writing, oral communication skills and ethics of field-based research. Students are required to notify the designated departmental instructor of their intention to participate in this course during the previous Winter semester. There will be a fee to cover partial costs in this course: students in financial need should approach the Chair of the department. (First offering Fall 2005)

GEOL*4090 Sedimentology F (3-3) [0.50]
Origin, transport, deposition of sediments, and formation of sedimentary rocks. Emphasis will be on the interpretation of recent and ancient environments of deposition, and on the uses of sedimentary materials. Six laboratories will be scheduled as field trips. One Saturday field trip may be scheduled. (Offered in even-numbered years.)

GEOL*4110 Topics in Earth Science F,W (3-0) [0.50]
Lecture-discussion or seminar on selected topics in Earth Science to be conducted by faculty with expertise in the area. Students should check with the department to determine what topic, if any, will be offered during specific semesters. Field trips will be scheduled as required.

GEOL*4990 Independent Study in Geology F,W,S (3-0) [0.50]

Instructor consent required.

GEOL*4995 Field Geology F,W,S (6-0) [1.00]
Field camp for students interested in pursuing graduate studies in geological sciences. Students in financial need should approach the Chair of the department. (First offering Summer 2005.)
<table>
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<tr>
<th>Course Code</th>
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<th>Credits</th>
<th>Description</th>
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</thead>
</table>
| GEOL*4120   | Topics in Earth Science F,W (3-0) [0.50]         |         | Lecture-discussion or seminar on selected topics in Earth Science to be conducted by faculty with expertise in the area. Students should check with the department to determine what topic, if any, will be offered during specific semesters. Field trips will be scheduled as required.  
Prerequisite(s): (1 of GEOG*1300, GEOL*1000, GEOL*1050), 0.50 credits at the 3000 level in a science appropriate to chosen topic  
Restriction(s): Instructor consent required. |
| GEOL*4130   | Clay and Humic Chemistry W (3-3) [0.50]           |         | Study of the fundamental chemistry of clay minerals and humic substances in the environment, with particular reference to soils, sediments and waters. Emphasis will be placed on their structures and charge characteristics in the context of surface complexation modeling of proton binding and cation and anion adsorption. (Offered in alternate years.)  
Prerequisite(s): SOIL*3060 or GEOL*3190  
Restriction(s): GEOL*4060 |
## German Studies

School of Languages and Literatures.

**NOTE:** The School reserves the right to determine the appropriate level to be taken by students enrolling in language courses.

### GER**M**1100 Introductory German I F,W (3-1) [0.50]
A beginning course in German. Students will attain a basic knowledge of the language and practice all four language skills (listening, speaking, reading and writing). They will also learn about aspects of German culture. This course may not normally be taken by anyone who has grade 12 or OAC German.

### GER**M**1110 Introductory German II F,W (3-1) [0.50]
An intensification of the four language skills introduced in GER**M**1100. Students will attain a grasp of essential grammatical concepts and the ability to converse comfortably in everyday situations. This course may not normally be taken by anyone who has OAC German.

**Prerequisite(s):** GER**M**1100 or equivalent

### GER**M**2240 Germany Through the Ages W (3-0) [0.50]
A survey of German history, society and culture illustrated by art, music, film and literature. This course is taught in English.

### GER**M**2400 Contemporary Germany W (3-0) [0.50]
A multimedia approach to contemporary German culture, 20th-century history and recent political events. Emphasis on oral work in German.

**Prerequisite(s):** GER**M**1110 or equivalent

### GER**M**2490 Intermediate German I F (3-1) [0.50]
Systematic oral and written practice with discussion of contemporary texts, and comprehensive grammar review.

**Prerequisite(s):** 1 of OAC German, GER**M**1110, equivalent

### GER**M**2500 Intermediate German II W (3-0) [0.50]
Further development of conversational and writing skills; introduction to more complex grammar.

**Prerequisite(s):** GER**M**2490 or equivalent

### GER**M**2560 Themes in German Literature/Culture W (3-0) [0.50]
This course aims to provide students with basic skills for interpreting literary texts through an exploration of themes that have shaped German literature and culture. Note: Students intending to take both GER**M**2560 and GER**M**2590 should take GER**M**2560 before GER**M**2590.

**Prerequisite(s):** GER**M**2490 or permission of the instructor

### GER**M**2590 Classics of German Literature F (3-0) [0.50]
This course is designed to introduce students to German literary texts which could be considered classics. Note: Students intending to take both GER**M**2560 and GER**M**2590 should take GER**M**2560 before GER**M**2590.

### GER**M**3020 Myth and Fairy Tales in Germany F (3-1) [0.50]
The course explores the role of mythology, fairy tales and legends in late 18th- and 19th-century German literature and culture in the context of socio-political developments. Topics may include the formation of a national identity, the allegorical fairy tale and its role in Romanticism, women and the fairy tale, the fairy tale and the socialization of children (incl. Disney), romantic mythology in music, art and literature. Authors may include Goethe, Brothers Grimm, ETA Hoffman, Wagner. Lectures and texts are English. Students registered in GER**M**3020 will meet a fourth hour per week to discuss texts in German. This course is offered in conjunction with HUM**N**3020. (Offered in even-numbered years.)

**Prerequisite(s):** GER**M**2560, GER**M**2590

**Equate(s):** HUM**N**3020

**Restriction(s):** GER**M**3440, HUM**N**3440

### GER**M**3420 Late 18th- and 19th-Century Drama W (3-1) [0.50]
German-language drama from ca. 1780 to ca. 1900 within a European context, including enlightenment, revolutionary and naturalist drama. This course is offered in conjunction with HUM**N**3420. Lectures are in English. Students registered in GER**M**3420 will meet a fourth hour per week to discuss texts in German. (Offered in odd-numbered years.)

**Prerequisite(s):** GER**M**2560, GER**M**2590

**Restriction(s):** HUM**N**3420

### GER**M**3430 Tradition and Innovation in 20th-Century Drama W (3-1) [0.50]
Trends, themes and theories in 20th-century German-language drama, with particular focus on significant innovations (e.g. expressionist drama, Brecht's epic theatre). This course is offered in conjunction with HUM**N**3430. Lectures are in English. Students registered in GER**M**3430 will meet a fourth hour per week to discuss texts in German. (Offered in even-numbered years.)

**Prerequisite(s):** GER**M**2560, GER**M**2590

**Restriction(s):** HUM**N**3430

### GER**M**3450 20th-Century German Literature and Film F (3-1) [0.50]
Trends and cultural movements that have shaped the 20th-century as reflected in works of major writers (e.g. Mann, Kafka, Grass, WolI) and film directors (e.g. Fassbinder). This course is offered in conjunction with HUM**N**3450. Lectures are in English. Students registered in GER**M**3450 will meet a fourth hour per week to discuss texts in German. (Offered in even-numbered years.)

**Prerequisite(s):** GER**M**2560, GER**M**2590

**Restriction(s):** HUM**N**3450

### GER**M**3500 Advanced German F (3-0) [0.50]
A study of advanced German grammar as well as aspects of structure and style of the German language. Oral presentations and discussions with a special emphasis on essay writing. Translation into idiomatic German and English.

**Prerequisite(s):** GER**M**2500

### GER**M**3530 German in the Workplace W (3-0) [0.50]
This course is designed to enable students to communicate and interact appropriately in professional and business situations.

**Prerequisite(s):** GER**M**2500 or equivalent

### GER**M**3600 Directed Readings in German Studies U (3-0) [0.50]
A reading course in German literature designed according to the program and interest of the individual student.

**Restriction(s):** Instructor consent required.

### GER**M**4940 Research Paper in German Studies U (3-0) [0.50]
A reading course on some approved topic in German language or literature, leading to an end-of-term research paper.

**Restriction(s):** Instructor consent required.
Greek

School of Languages and Literatures.

NOTES: Literary texts are, at all levels, studied in the original language. Students registering in these courses will be expected to have the appropriate knowledge. Higher level courses in Greek are available as language modules attached to selected Classical Studies courses. (See Classical Studies course descriptions.)

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<tr>
<th>Course Code</th>
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<th>Credits</th>
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<tbody>
<tr>
<td>GREK*1100</td>
<td>Preliminary Greek I F (3-0) [0.50]</td>
<td>A beginning course in Greek, providing the fundamentals of structure and idiom. (This course may not be taken by anyone who has OAC Greek).</td>
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<tr>
<td>GREK*1110</td>
<td>Preliminary Greek II W (3-0) [0.50]</td>
<td>A continuation of GREK*1100.</td>
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<tr>
<td>Prerequisite(s):</td>
<td>GREK*1100 or high school year 4 (Grade 12) Greek</td>
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<tr>
<td>GREK*2020</td>
<td>Greek Language and Culture F (3-0) [0.50]</td>
<td>Consolidation of fundamental morphology and syntax acquired in GREK<em>1100 and GREK</em>1110. Intensive reading in texts that also illuminate aspects of Greek culture.</td>
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<tr>
<td>Prerequisite(s):</td>
<td>GREK<em>1100, GREK</em>1110</td>
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History

Department of History.

Students wishing to take a 3000 level course must have pass standing in at least 5.00 university credits.

Students wishing to take a 4000 level course must have pass standing in at least 10.00 credits. Access to all 4000 level courses is restricted to students in the B.A. Honours program with a minimum 70% average in all history course attempts.

Students should note the prerequisite requirements for upper level courses in planning their individual programs.

Content of individual courses may vary depending on the instructor; students therefore should check course outlines at the time of course selection.

Courses marked (C) are core courses required of all History program students.

Courses marked (H) are honours courses. Students in a general program wishing to take these must obtain the permission of instructors concerned.

HIST*1010 Europe in the Age of Expansion F,W (3-0) [0.50]
This course will deal with the evolution and expansion of European society during the pre-industrial era. Commencing with the upheavals of Renaissance and Reformation it will survey such themes as the voyages of exploration, the impact of western culture on indigenous societies, the development of commercial capitalism, the transformation of science and technology and the conflict between imperial powers in Europe and overseas.

(C)

HIST*1150 20th-Century Global History F,W (3-0) [0.50]
Twentieth-century world history with particular emphasis on Asia, Africa, and Latin America.

HIST*1250 Science and Society Since 1500 F (3-0) [0.50]
This course is intended as an introduction to the history of science and its interrelationships with society in the western world since 1500, including its influence on the environment, religion, economics and political developments, warfare, etc. Particular emphasis will be laid upon scientific developments in the 19th or 20th centuries.

Restriction(s): ASCI*1000

HIST*2000 The British Isles, 1066-1603 S,F (3-0) [0.50]
A comparative survey of the histories of England, Scotland, Ireland and Wales during the Medieval and Early Modern eras. Stress will be placed upon common themes such as institutional development, warfare and the often violent interaction between the English and the Celtic peoples.

HIST*2020 Film as History F (2-1) [0.50]
This course will consider film both as a source and as a comment on the past. Topics will vary depending on instructor expertise, and may include film as propaganda, the city in film, film as myth, women and gender in film, film and war.

HIST*2400 War and Society W (3-0) [0.50]
Concentrating on developments following the introduction of gunpowder, the course will consider the evolution of military strategy and tactics, the impact of technology on warfare, and the relationship between war and civilian populations.

HIST*2700 World Religions in Historical Perspective W (3-0) [0.50]
This course introduces students to the comparative study of religion in history and the interaction of religion with general social and cultural traits over time. A focus on the cultural roots of specific traditions and religion as a metaphor will account for the spread of these diverse traditions across social and national boundaries. This course will consider eastern religions, primal religions, 'People of the Book' (Judaism, Christianity and Islam considered together), and the 'New Religious Movements' (a category considering religions and para-religions produced by modernity). (Offered through Distance Education format only).

HIST*2110 The Atlantic World 1500-1850 W (3-0) [0.50]
A study of the comparative histories of colonial societies of England, France, Spain and Portugal in a transatlantic context. This course will compare the regional interconnections as well as the uniqueness of each society.

HIST*2150 U.S.A.: Revolution to Civil War F (3-0) [0.50]
History of the United States from 1760 to 1877. The course will consider themes of westward expansion, sectionalism and Civil War, immigration, and the growth of modern American society.

Restriction(s): HIST*2650

HIST*2200 The Medieval World W (3-0) [0.50]
The major events and developments in Europe, north Africa and Western Asia from the fall of the Roman Empire to 1500 a.d. Emphasis will be placed on the evolution of western Christianity, the rise and expansion of Islam, the emergence of the University, and the growth of literacy and print culture culminating in the humanist movement of the late Middle Ages.

HIST*2250 Environment and History S (0-0) [0.50]
An introduction to the field of environmental history - its nature and uses. This course provides a historical perspective to environmental issues. It examines the causes and impact of human-induced modification of the natural world in selected areas of the globe, the evolution of attitudes and ideas about the natural world over time and the growth of conservation/environmental issues and movements. (Also offered through distance education format.)

HIST*2260 Religion and Society in the Modern World F (3-0) [0.50]
A survey of the major trends in religious beliefs and practices and their social impact since the Reformation. The focus of the course is on the British Isles and North America with some discussion of developments in Continental Europe.

HIST*2390 Imperial and Soviet Russia Since 1800 W (3-0) [0.50]
An introductory survey of Russian History from the death of Catherine the Great to the onset of World War II. This course will focus on efforts by Russian rulers to modernize the Empire's social and economic institutions in response to Western influence. Attention will be directed to the study of the musical culture of Russia. Previous familiarity with basic music terminology and note reading is recommended. (Offered in odd-numbered years.) (Also listed as MUSC*2390.)

HIST*2450 Historical Methods F (3-0) [0.50]
A course designed to acquaint students with the development of historical writing, the interpretive problems surrounding the study of history, and the methods employed by historians. (C) (Also offered in Distance Education format.)

Prerequisite(s): 1.00 credits in history at the 1000 or 2000 level

HIST*2500 Britain and the World Since 1600 U (3-0) [0.50]
This course will survey the history of England and the Celtic Regions of the British Isles from the close of the Tudor period up to the mid-20th century. Emphasis will be placed on social and economic development before and after the Industrial Revolution as well as on those political and military challenges which have characterized Britain's status as a global power in the modern era.

HIST*2510 The Emergence of Modern European Society 1789-1945 F (3-0) [0.50]
This course will deal with the emergence of modern European society as the result of socio-economic and consequent political changes from the French Revolution to the end of World War II.

HIST*2601 Canadian History F (2-1) [0.50]
First part of the two-semester course HIST*2601/2. Refer to HIST*2601/2 for course description.

Restriction(s): HIST*2600

HIST*2601/2 Canadian History F-W [1.00]
A study of selected events and issues in Canadian history from 1500 to the present to deepen our understanding of Canadian social, economic and political structures and values. This is a two-semester course offered over consecutive semesters. When you select it you must select HIST*2601 in the Fall semester and HIST*2602 in the Winter semester. A grade will not be assigned to HIST*2601 until HIST*2602 has been completed. (C)

Restriction(s): HIST*2600

HIST*2602 Canadian History W (2-1) [0.50]
Second part of the two-semester course HIST*2601/2. Refer to HIST*2601/2 for course description.

Prerequisite(s): HIST*2601

Restriction(s): HIST*2600

HIST*2610 Contemporary Canadian Issues S (3-0) [0.50]
A study of selected issues in modern Canadian history. The subjects investigated such as natives, the environment, the state, the family, will vary with the expertise of the instructor.

HIST*2650 America Since 1877 W (3-0) [0.50]
A survey of the history of the United States since Reconstruction. Political, social and intellectual developments will be covered, as will the rise of America to world power.

HIST*2800 The History of the Modern Family W (3-0) [0.50]
An examination of the family since 1500 with particular emphasis on the English speaking world, though comparisons will be made with other societies. Topics considered will include: change in the legal structure of marriage; power relations and sex roles within the family; the role of kin in the family; changing attitudes to sexuality; the attitude of state to the family and its functions.
HIST*2820 Modern France, 1750-1992: From Louis XV to Mitterand U (3-0) [0.50]
This course is a survey of French history from the beginning of modernization in the 18th century to the challenges of the late 20th century. Topics will include the Revolution, the Napoleonic period, social and political transformation in the 19th century, the Great War, the defeat of 1940 and Vichy, and the remarkable changes in French life since the Second World War.

HIST*2830 The Emergence of Modern Germany 1871-1990 U (3-0) [0.50]
This course will be devoted to a study of major themes in modern German history, and to an analysis of Germany's role in post-war Europe. Topics include the unification of Germany, the role of nationalism in modern German history, the significance of the Bismarck era, the rise of Hitler and the development of the two Germanies until their unification in 1990.

HIST*2850 History of Greece and Rome W (3-0) [0.50]
The history of the Mediterranean World from prehistoric Greece through Classical Greece and Rome to the legalization of Christianity in the Roman Empire in the 4th century.

HIST*2860 Topics in the History of Slavery U (3-0) [0.50]
An introduction to the history of slavery. The course will consider the founding of Islam, its global diffusion, and its role in the transformation of modern societies in the developing world.

HIST*2910 History of Modern Asia W (3-0) [0.50]
An introduction to the histories and cultures of South, Southeast and East Asia since 1750. The course will consider the evolution of Asian religions, cultural identities, concepts of state and of society in the modern era.

HIST*2920 Republican Latin America W (3-0) [0.50]
This course will study selected themes in the history of Latin American republics from the independence period to the modern era.

HIST*2930 Women and Cultural Change F (3-0) [0.50]
Using gender and ethnicity as the main categories of analysis this course examines the history of women in the broad geographical regions of North America. The roles women have played in political, economic and private life will be emphasized.

HIST*2960 Topics in the History of Slavery U (3-0) [0.50]
This course introduces students to slavery and the slave trades of the societies of the Atlantic Rim during the era of the Atlantic slave trade. The African experience of the trade constitutes a major focus, but the course also examines aspects of the Atlantic and the trans-Saharan slave trades as they affected societies on the other side of the Atlantic and in the Islamic Middle East. The course also examines the disputed links between the Atlantic slave trade and the rise of capitalism on the one hand and underdevelopment on the other.

HIST*3010 Government and Society in Tudor-Stuart England, 1529-1689 U (3-0) [0.50]
An assessment of the challenges facing England during its emergence from a medieval to a modern state in the 16th and 17th centuries. The course will examine such external forces as the Renaissance, Reformation and Scientific Revolution as well as domestic crises culminating in the political revolutions of 1640 and 1688.

Prerequisite(s): HIST*1010 or HIST*2000

HIST*3020 Sexuality and Gender in History U (3-0) [0.50]
This course provides an introduction to the issues of sexuality and gender within history. The course will enable students to develop an understanding of how issues of masculinity, femininity, and sexuality were developed and defined across cultures. The chronological and geographic focus of the course may vary according to the interests and expertise of the instructor. (Also offered through distance education format.)

Prerequisite(s): 5.00 credits

HIST*3030 Celtic Britain and Ireland to 1066 U (3-0) [0.50]
The social, political and cultural history of the Celtic peoples of the British Isles from Prehistory to the advent of the Normans. Special consideration will be given to the development of Celtic institutions as well as to comparative study of successive waves of invaders-Romans, Anglo-Saxons, Vikings and Normans.

Prerequisite(s): HIST*2000

HIST*3060 American Society U (3-0) [0.50]
A study of selected aspects of American society focusing on the 19th and 20th Centuries. Specific topics, which will vary according to the expertise of the instructor, may include such themes as War and American society, the Jacksonian Era, Civil War America, Film and American society.

Prerequisite(s): HIST*2110 or HIST*2650

HIST*3070 Modern South Asia U (3-0) [0.50]
This course studies the history of modern South Asia from 1757 to the present day. Possible topics include: ideologies of British power in South Asia, Indian reactions to imperialism, socio-religious movements, the birth of nationalism and the nation-state in South Asia, civil society and social issues in a developing nation, regionalism, foreign policy and South Asia's place in the 21st century.

Prerequisite(s): HIST*2910 or HIST*3590

HIST*3090 Nationalism and Internationalism in Europe 1914-1957 U (3-0) [0.50]
This course will be concerned with two main themes of 20th-century European history: the impact of nationalism and the gradual emergence of international ideas and institutions. Major topics to be discussed include nationalism during the two world wars, the strengths and weaknesses of the League of Nations, and the creation of the European Economic Community.

Prerequisite(s): HIST*2510

HIST*3130 Popular Culture and Punishment, 1700-1900 U (3-0) [0.50]
The course will survey the social, political and intellectual influences upon the leisure activities of Europeans and Americans in the period with special reference to institutions such as the prison, the reformatory and the regulation of popular culture and leisure activities. Witchcraft and the witch-hunt will be discussed.

Prerequisite(s): HIST*1010 or SOC*1500

HIST*3140 Witch-hunts and Popular Culture S (0-0) [0.50]
This course will explore the phenomenon of the 'witch-hunts' in early modern Europe through a focus on Scotland in the period 1560-1700. In doing so it will provide students with a background on the history of Scotland during the early modern period and introduce them to the considerable body of historical writing on the subject of the witch-hunts. In addition, students will explore notions of both elite culture and the 'popular culture' of witchcraft and the witch-hunt will be discussed.

Prerequisite(s): HIST*1010 or SOC*1500

HIST*3150 History and Culture of Mexico U (3-0) [0.50]
This course will cover the history and culture of Mexico from its Precolumbian civilizations to the present. Topics may include: Aztec and Maya civilizations, European discovery and conquest, inquisition, conquests, independence, the Mexican Revolution, indigenous, NAFTA and Zapatista insurgency in Chiapas.

Prerequisite(s): 4.50 credits (including 1 of HIST*2110, HIST*2920, HIST*2930)

HIST*3160 Canadian Political History Since 1867 U (3-0) [0.50]
This course consists of a detailed study of the background and development of the Canadian political process and culture. It devotes special attention to the changing role and character of the state.

HIST*3220 Canadian Cultural Identity U (3-0) [0.50]
This course uses a case study approach to explore the origins, major themes, and historical development of Canadians' cultural identities. Possible topics include anti-Americanism, loyalism, multiculturalism, official bilingualism, mass culture, tourism, folklore, and state cultural policies.

Prerequisite(s): HIST*2610/2

HIST*3270 Revolution in the Modern World W (3-0) [0.50]
This course offers a comparative analysis of revolutionary movements in the modern world. It focuses on the French Revolution, the development of a revolutionary tradition in the 19th century, the Russian Revolution, and the Communist Revolution in China. Comparative themes include the relative importance of ideology and class conflict, the emergence of professional revolutionaries, and the relationship between revolutions and international relations.

HIST*3290 Europe in the Age of Revolutions, 1789-1848 U (3-0) [0.50]
This course will examine changes in the structure of European society in the first half of the 19th century; the rise of new forces, e.g., liberalism, nationalism, socialism and their impact on European society and politics.

Prerequisite(s): HIST*1010 or HIST*2510

HIST*3310 Disease and History, U (3-0) [0.50]
This interdisciplinary course provides an introduction to the historical interactions between disease and human society from the Middle Ages to the present. Major themes may include the co-construction of disease and society; disease and urbanization; disease and colonialism; disease and globalization; disease and gender. (Offered in even-numbered years.)

Prerequisite(s): 4.50 credits
HIST*3380 British Imperialism in Asia and Africa U (3-0) [0.50]
This course examines the British Empire from the 18th through the 20th centuries. It focuses on the empire in Asia and Africa; ideologies of empire; and European and non-European approaches and reactions to empire.
Prerequisite(s): HIST*2500 or HIST*2510

HIST*3410 The History of Pre-Colonial Africa U (3-0) [0.50]
This course will include studies on the Ibo, Yoruba and Edo societies, and on the Dahomey, Hausa, Western Congo and Angola states; the effect of the Atlantic slave trade on African societies. Emphasis will be given to the householding system, lineage group organization, subsistence agriculture, and the sources of African History.
Prerequisite(s): HIST*1150 or HIST*2960

HIST*3430 Topics in Environment and Society U (3-0) [0.50]
This is a topical course, which builds on themes introduced in HIST*2250, Environment and History. Topics may include global deforestation; the origins of the global environmental movement; agriculture and the environment; the environmental impact of cultural encounters.
Prerequisite(s): 4.50 credits including HIST*2250

HIST*3450 Representations of History U (2-1) [0.50]
Critical analysis of public representations and appropriations of history in such forms as websites, films, television, museums, archives, commemorations, historical fiction, and popular non-fiction.
Prerequisite(s): HIST*2450

HIST*3470 Independent Reading U (3-0) [0.50]
A course of independent study, based on a comprehensive reading list provided by the department. Evaluation will be based on 2 written examinations.
Prerequisite(s): 7.50 credits
Restriction(s): Instructor consent required.

HIST*3480 Workplace Learning U (0-0) [0.50]
An independent study course based on either History related voluntary or paid workplace experience. Evaluation will be based on assignments relating to work duties. These will usually be in the form of a weekly journal, and a major project relating to some specific aspect of the work experience. Students interested in this option must have their project approved by the department prior to the semester in which they plan to engage in their work experience. Students will then be assigned to a faculty supervisor who will oversee their project.
Prerequisite(s): 7.50 credits including 1.50 History or equivalent credits
Restriction(s): Instructor consent required.

HIST*3530 Celtic Britain and Ireland Since 1603 U (3-0) [0.50]
This course will deal with the Celtic peoples in the British Isles and their effort to maintain their cultural, economic and political independence.
Prerequisite(s): 1 of HIST*2000, HIST*2500, HIST*3030

HIST*3540 World War Two U (3-0) [0.50]
An in-depth analysis of the immediate causes and impact of the Second World War focusing on the influence of military events, on the social, political and economic developments of the major participating nations.
Prerequisite(s): 2 of HIST*1150, HIST*2040, HIST*2500, HIST*2510, HIST*2601/2, HIST*2650, HIST*2830, HUMN*2050

HIST*3570 Women in Modern Europe U (3-0) [0.50]
This course will examine selected topics in modern European women’s history. Attention will be given to action in the public sphere, women’s personal and family lives and occupations.
Prerequisite(s): 1 of HIST*2500, HIST*2510, HIST*2800, HIST*2930

HIST*3580 Women’s History in Asia/Africa U (3-0) [0.50]
The roles of women in Asia or Africa. The specific topics covered will be announced each year. Students should consult with the department as to topics to be dealt with in each offering. Specific topics will be announced prior to the course selection period.
Prerequisite(s): 1 of HIST*1150, HIST*2800, HIST*2890, HIST*2910, HIST*2930

HIST*3590 Culture and Society in South Asia F (3-0) [0.50]
This course examines South Asian history from the beginnings of civilization on the Indian subcontinent to the end of the Great Mughals in the 18th century. It provides an overview and analysis of the cultural, social, religious, political and economic developments of South Asian civilization, including development from tribe to state to civil society, political organization, socio-religious movements, cultural contact and exchange, and the development of a composite culture.

HIST*3600 Modern Quebec Since 1850 U (3-0) [0.50]
A course examining the social, economic, and political evolution of Quebec as well as the province’s relations with the rest of Canada. Topics discussed include nationalism, the role of the church, the growth of trade unionism, Quebec federalism, and the Quiet Revolution.
Prerequisite(s): HIST*2601/2

HIST*3650 Twentieth-Century America U (3-0) [0.50]
Starting at the end of World War II, this course considers the nature, origins, and ending of the Cold War, political and social changes in the post-war period and the conflicts in recent decades over issues of race, ethnicity, gender, and culture.
Prerequisite(s): HIST*2650

HIST*3660 Canadian Social History Since Confederation U (3-0) [0.50]
An examination of selected themes in the development of modern Canadian society such as the role of class, the social consequences of industrialization and urbanization, immigration, ethnicity and religion, education and culture.
Prerequisite(s): HIST*2601/2

HIST*3750 The Reformation U (3-0) [0.50]
The changes in religious, social and cultural life in 16th century Europe. This course will examine the impact of humanism, the developments in urban culture known as the Renaissance, the reform movements, in central and western Europe, the Catholic response, and the resulting disintegration of the medieval social order.
Prerequisite(s): HIST*1010

HIST*3820 Early Modern France U (3-0) [0.50]
This course surveys French History from the renaissance to the French Revolution. Students will examine the emergence of the powerful monarchy, 16th-century religious conflict and civil war, and the social, political and intellectual developments of the 17th and 18th centuries, which culminated in the 1789 Revolution.
Prerequisite(s): HIST*1150 or HIST*2960

HIST*3910 Africa Since 1800 U (3-0) [0.50]
This course will trace the suppression of the slave trade and the opening of Africa to European imperialism. Emphasis will be given to resistance movements and rising nationalism between the two World Wars. An endeavour will be made to relate the national liberation movement to the achievement of independence.
Prerequisite(s): HIST*1150 or HIST*2960

HIST*3930 Black America in the 20th-Century U (3-0) [0.50]
A study in depth of the demographic expansion of the Black population in the United States since the Reconstruction; W.E.B. Du Bois, the Niagara Movement and the NAACP, the "great migrations"; the rise of the ghettos; the impacts of the Great Depression and World War II; Martin Luther King and the civil rights movement.
Prerequisite(s): HIST*3970 Independent Reading II U (3-0) [0.50]
Similar to HIST*3470.
Prerequisite(s): HIST*3470
Restriction(s): HIST*3480. Instructor consent required.

HIST*4030 Historical Biography U (3-0) [0.50]
This advanced research seminar asks students to consider the role of the individual in history by reading theoretical works and examples drawn from the major schools of thought on this issue. Students will undertake to write a biography that will utilize primary sources and which will include a detailed historiographical discussion of the works available on their chosen subject.
Prerequisite(s): 1.50 credits in History at the 3000-level

HIST*4040 Topics in Scottish History U (3-0) [0.50]
A seminar course dealing with selected aspects of Scottish social, economic and political history. The seminars will be based upon an examination of primary sources from the University library’s extensive Scottish Collections, as well as secondary literature. Students should consult with the department for specific offerings. (H)
Prerequisite(s): HIST*3530
Restriction(s): 70% average in all History course attempts

HIST*4050 Topics in Scottish History U (3-0) [0.50]
A seminar course dealing with selected aspects of Scottish social, economic and political history. The seminars will be based upon an examination of primary sources from the University library’s extensive Scottish Collections, as well as secondary literature. Students should consult with the department for specific offerings. (H)
Prerequisite(s): HIST*3530
Restriction(s): 70% average in all History course attempts
HIST*4100 Africa and the Slave Trades U (3-0) [0.50]
This course will discuss the origins, character, and operation of slavery and the export slave trades in Africa. It will examine the interaction between domestic slavery and the export slave trades, on the one hand, and demographic, political, economic, social and cultural impact on African states and societies, on the other. Other themes to be examined include slave resistance in Africa, and abolition and the introduction of legitimate commerce and their impact on Africa.
Prerequisite(s): 1 of HIST*2960, HIST*3410, HIST*3910

HIST*4120 Topics in Global History U (3-0) [0.50]
This course focuses on issues that emphasize the history of connections between different parts of the world. Topics may include the growth of the world economy; transformations of the global environment; trade and exchange; diasporas and migration.
Prerequisite(s): 1.50 credits in History at the 3000-level

HIST*4160 Seminar in Canadian Political History U (3-0) [0.50]
Political events, key personalities, the political process, and state institutions will be analyzed with a view to understanding historical aspects of the political system and culture in Canada. (H)
Prerequisite(s): HIST*2601/2
Restriction(s): 70% average in all History course attempts

HIST*4190 The American South U (3-0) [0.50]
A study of the slave south from colonial times to the Civil War, this course will concentrate on the evolution of the plantation system and slave society, the growth of a distinctive south civilization, and the immediate causes of the Civil War. (H)
Prerequisite(s): HIST*2150
Restriction(s): 70% average in all History course attempts

HIST*4210 Seminar in American Political History U (3-0) [0.50]
This course will examine a variety of topics drawn from the 19th- and 20th-centuries. (H)
Prerequisite(s): HIST*2150 or HIST*2650
Restriction(s): 70% average in all History course attempts

HIST*4280 Poverty and Policy in the Victorian Age U (3-0) [0.50]
Starting with the debates over the New Poor Law of 1834, this course will examine the changing content of the notion of poverty, and changing methods adopted to treat it. It will also look at the lives of the poor, in so far as these can be reconstructed from contemporary sources. (H)
Prerequisite(s): HIST*2500
Restriction(s): 70% average in all History course attempts

HIST*4450 History with Numbers F (3-0) [0.50]
This course surveys the use of quantitative methods, the historical evolution of data generation and recording, and the use of quantitative sources in historical analysis and evidence in historical research. The principal objective is to build numeracy among senior History students. Case studies and example will be drawn from studies of inequality, family structure and migration from a variety of regions in Europe, Asia, Africa and the Americans.
Prerequisite(s): HIST*2450 and at least 1.00 credits in History at the 3000 level or above.
Restriction(s): 70% average in all History course attempts

HIST*4470 Special History Project Seminar I U (3-0) [0.50]
This course is designed to train honours students in the techniques of research, interpretation and writing of history. The student will choose a topic for intensive study from a list approved by the department. (H)
Restriction(s): 70% average in all History course attempts. Instructor consent required.

HIST*4560 Topics in Revolution U (3-0) [0.50]
A seminar course designed to explore one or more social or political or intellectual revolutions in the early modern or modern era depending on the expertise of the instructor. Students should consult the department for specific offerings. (H)
Restriction(s): 70% average in all History course attempts. Instructor consent required.

HIST*4570 Topics in Revolution U (3-0) [0.50]
A seminar course designed to explore one or more social or political or intellectual revolutions in the early modern or modern era depending on the expertise of the instructor. Students should consult the department for specific offerings. (H)
Restriction(s): 70% average in all History course attempts. Instructor consent required.
Horticultural Science

Department of Plant Agriculture

HORT*1050 Introduction to Horticultural Management F (2-3) [0.50]
Various sectors of the horticulture industry are introduced, reviewed and investigated, integrating environmental perspectives. Field trips, hands-on experience, and a review of safety legislation and practices will provide a practical base. The variety, breadth, and importance of the horticulture industry in Ontario's economy will be outlined and discussed.

Restriction(s): Registration in BBRM, Horticulture Major

HORT*1060 Plant Identification I. Woody Landscape Plants F (3-2) [0.50]
Identification of cultivated woody plants by plant form, size, and habitat will be related to landscape function. The basic elements of nomenclature and the classification of genera into families will be studied. Discussion will highlight interconnections between woody plants and human history, ethnobotany, medicine, literature, geography, and ecology. (Also offered through distance education format.)

Restriction(s): Registration in BBRM, Horticulture Major, HORT*3260

HORT*3010 Annual, Perennial and Indoor Plants - Identification and Use F (2-2) [0.50]
The identification and adaptation of annual, biennial, perennial herbaceous and indoor plants. Lectures will be integrated with outdoor laboratory activities to emphasize utilization of plant groups in park, perennial border, general landscape botanical garden and interiorscape settings.

Prerequisite(s): 0.50 credits in botany

HORT*3220 Turf Management F (2-2) [0.50]
Principles and practices of turf production and management of all aspects of the turf industry including golf courses, athletic fields, parks, roadsides, reclamation sites and nursery sod production.

Prerequisite(s): 0.50 credits in botany

HORT*3230 Plant Propagation F (3-2) [0.50]
Principles and practices of propagation for horticultural plants. Sexual (seed) propagation to include seed maturation, dormancy and seed germination; vegetative (asexual) propagation, including division, layering, budding, grafting and tissue culture.

Prerequisite(s): BIOL*1040

HORT*3260 Woody Plants F (1-3) [0.50]
Identification and cultural adaptation of native and introduced woody plants useful in cultivated landscapes and natural areas.

Prerequisite(s): BIOL*1030

HORT*3280 Greenhouse Production W (3-3) [0.50]
Principles and practices of production, culture and marketing of greenhouse flower and vegetable crops.

Prerequisite(s): BOT*3310 or PBIO*3110

HORT*3340 Culture of Plants W (3-2) [0.50]
Site preparation, plant establishment and culture of plants in various landscape settings. The course will examine the problems of disturbed planting sites, urban environment and the culture of plants in high traffic areas. Arboricultural cultivation and maintenance of woody plants with practical application will be discussed.

Prerequisite(s): BIOL*1040 or equivalent

HORT*3510 Vegetable Production F (3-3) [0.50]
The vegetable industry and the characteristics, culture, storage and marketing of field-grown vegetable crops will be studied. Organic vegetable production will also be considered.

Prerequisite(s): BOT*2100

HORT*4080 Controlled Environment Systems for Plants W (3-3) [0.50]
An examination of controlled environments, including: commercial greenhouses, plant growth chambers, advanced life support systems for space, urban office towers and other indoor spaces where some form of environment control/management is required. The material presented will address sensor requirements and principles of operation, feedback control requirements and computer-automated systems in plant growth facilities.

Prerequisite(s): At least 3.00 credits from BOT, CROP, HORT, PBIO courses including BOT*2100.

HORT*4250 Nursery Production W (2-3) [0.50]
Methods of production for field and container grown landscape nursery stock including cultural management and merchandising in wholesale and retail operations.

Prerequisite(s): 1 of AGR*2451/2 , AGR*2470, 1.00 credits in horticulture, botany or a related field.
Hospitality and Tourism Management

School of Hospitality and Tourism Management.

**HTM*1000 Introduction to Hospitality and Tourism Management F (1-2) [0.50]**
A survey of the hospitality and tourism industry, with reference to its historical development, growth, organization; the management process, and the scope of the industry today. (Also offered through distance education format.)
Equate(s): HFAA*1000
Restriction(s): Registration in B.Comm. HFAA, HFAA Co-op or Tourism Management.

**HTM*2000 Hospitality and Tourism Purchasing Management W (3-0) [0.50]**
The management of the purchasing function in hospitality and tourism businesses as it applies to food, beverages, supplies, equipment, furnishings and services. The focus is on the process of managing the supply channel as well as on developing appropriate policies and procedures.
Prerequisite(s): 1 of HFAA*1000 , HTM*1000, (ECON*1050, HFAA*2700 ), (ECON*1050, HTM*2700)
Equate(s): HFAA*2000
Restriction(s): Registration in B.Comm. HFAA, HFAA Co-op or Tourism Management.

**HTM*2030 Control Systems in the Hospitality and Tourism Industry F,W (2-2) [0.50]**
A study of the policies and procedures required to control food, beverage and other products, payroll and other operating costs. Areas examined include such topics as cost behaviour and analysis, menu analysis, budget preparation and the interpretation of data. The course will also stress the application of analytical techniques. Examples from all industry segments will be used. (Also offered through distance education format.)
Prerequisite(s): 1 of HFAA*2000 , HFAA*2700 , HTM*2000, HTM*2700
Equate(s): HFAA*2030
Restriction(s): Registration in B.Comm. HFAA, HFAA Co-op or Tourism Management.

**HTM*2050 Dimensions of Tourism F (3-0) [0.50]**
The examination of tourism as an amalgam of industries - transportation, accommodation, travel, trade and other facilitating services; follows a multidisciplinary approach in its analysis, organization, planning and control.
Prerequisite(s): 5.00 credits
Equate(s): HFAA*3100 and HTM*3100
Restriction(s): Registration in B.Comm. HFAA, HFAA Co-op or Tourism Management.

**HTM*2070 Meetings and Convention Management F (3-0) [0.50]**
This course is intended to serve as an overview and survey of the Meetings, Incentives, Conventions and Exhibitions (MICE) Industry. The objective of the course is to provide the learner with a general macro working knowledge of the MICE industry principles, practices, operations and management.
Prerequisite(s): HFAA*1000 or HTM*1000
Restriction(s): Registration in B.Comm. HFAA, HFAA Co-op or Tourism Management.

**HTM*2120 Hospitality and Tourism Marketing I W (3-0) [0.50]**
This course discusses the hospitality and tourism marketing environment in Canada and all elements of the marketing planning process through the use of numerous up-to-date examples from all geographic areas and sectors of the tourism and hospitality industries. Students will gain a comprehensive understanding of the private and public sector stakeholders as well as the contemporary marketing challenges they face.
Prerequisite(s): HTM*1000
Restriction(s): Registration in B.Comm. HFAA, HFAA Co-op or Tourism Management.

**HTM*2150 Introduction to Canadian Business Management U (3-0) [0.50]**
An introductory course in the fundamentals of business management in Canada. Students will be exposed to the basic functions of business and management. This course will also cover small business and entrepreneurship, forms of business ownership, competing in the global business environment and the economic and political realities of business in Canada today. This course may not be taken for credit by Bachelor of Commerce students. (Offered through distance education format only.)
Equate(s): HFAA*2150
Restriction(s): B.Comm. students cannot take this course for credit.

**HTM*2170 Canadian Tourism Policy, Planning and Development W (3-0) [0.50]**
This course focuses on the various aspects of tourism planning, policy, and development in Canada. Topics covered include: reasons for development; tourism development as a strategy for urban revitalization; tourism's links to heritage conservation and regional development; sustainability and the adverse impacts of development; cultural considerations and community participation; and the importance of context for individual tourism projects. (First offering Winter 2007.)
Prerequisite(s): GEOG*1220, HTM*1000, HTM*2050
Restriction(s): Registration in B.Comm. HFAA, HFAA Co-op or Tourism Management.

**HTM*2200 Organizational Behaviour F,W (3-0) [0.50]**
This course introduces organizational behaviour. It focuses on individual perception, learning, communication, motivation and decision-making as well as group effectiveness, problem-solving and decision-making. (Also offered through distance education format.)
Prerequisite(s): 5.00 credits
Equate(s): HFAA*2200
Restriction(s): ISS*2500, PSYC*3080. Priority Access course. Enrolment restricted to particular programs or specializations. See department for more information.

**HTM*2700 Introductory Foods F,W (2-2) [0.50]**
Scientific principles and their application to food preparation and food consumption. An integrated lecture and laboratory approach is used to study the chemical and physical properties of foods.
Prerequisite(s): 1 of Grade 12U Chemistry, OAC Chemistry, CHEM*1000 , CHEM*1040, CHEM*1060, CHEM*1100
Equate(s): HFAA*2700
Restriction(s): Registration in B.Comm. HFAA, HFAA Co-op or Tourism Management, B.A.Sc. Applied Human Nutrition.

**HTM*2740 Cultural Aspects of Food F (3-0) [0.50]**
A survey of cultural influences on individual and group food habits and patterns. The study of the selection and uses of food; food beliefs, attitudes and related behaviours within the context of cultural systems.
Equate(s): HFAA*2740

**HTM*3000 Human Resources Management F,W (3-0) [0.50]**
This course examines the essential human resource function of planning, staffing, employee training and development, employee assistance programs, the legal environment and employee maintenance in a variety of organizational settings. (Also offered through distance education format.)
Prerequisite(s): 1 of AGEC*2220, FRHD*3060, HFAA*2030 , HFAA*2200 , HTM*2030, HTM*2200
Equate(s): HFAA*3000
Restriction(s): PSYC*3070. Priority Access course. Enrolment restricted to particular programs or specializations. See department for more information.
HTM*3030 Beverage Management F (2-2) [0.50]
This course provides students with knowledge of the beer, spirit, wine, coffee and soft drink industries and their importance in the hospitality environment. Course topics will include product characteristics, purchasing, pricing, control, marketing and promotion, trends and the responsible service of alcoholic beverages.

Prerequisite(s): 10.00 credits
Restriction(s): HAF*A180, HTM*4180. Registration in B.Comm. HAF*A or HTM*4180. Students must be of legal drinking age in Ontario.

HTM*3060 Lodging Management U (4-0) [0.50]
To explore and analyze the principles and practices of lodging management and related sales activities. The management of and interaction among various divisions of lodging operations are addressed, including front office/housekeeping/engineering divisions, food and beverage operations, sales and marketing, accounting and finance. Focus of the course is on communication both within and among departments, divisions, and most importantly, with the consumer.

Prerequisite(s): HAF*A2100 or HTM*2100
Equate(s): HAF*A3060
Restriction(s): Registration in B.Comm. HAF*A or HTM*4180.

HTM*3070 Hospitality and Tourism Management Accounting F,W (2-2) [0.50]
Application of accounting principles to hospitality and tourism accounting systems. Emphasizes use of the uniform system of accounts for hospitality and tourism operations, principles of internal control, payroll control, budgeting, responsibility accounting and analysis of financial data. Designed to assist the student in relating accounting information to management decisions. Examples from all industry segments will be used. (Also offered through distance education format.)

Prerequisite(s): AGEC*2220, (HAF*A2030 or HTM*2030)
Equate(s): HAF*A3070
Restriction(s): Registration in B.Comm. HAF*A or HTM*4180.

HTM*3080 Hospitality and Tourism Marketing II F,W (3-0) [0.50]
Focuses on the major marketing decisions that hospitality managers face in generating and sustaining demand for their products and services. Includes problems, practices, and principles that lead to pricing, distribution, location, promotion and merchandising decisions. Note: Students with credit for this course may not proceed to COST*1000.

Prerequisite(s): HTM*2120
Equate(s): HAF*A3080
Restriction(s): Registration in B.Comm. HAF*A or HTM*4180.

HTM*3090 Foodservice Operations Management F,W (4-6) [1.00]
The application of managerial functions to foodservice operations with an emphasis on the principles of food production and service in a commercial setting.

Prerequisite(s): (HAF*A2030 or HTM*2030), (HAF*A2700 or HTM*2700)
Equate(s): HAF*A3010, HAF*A3090, HAF*A3091/2
Restriction(s): Registration in B.Comm. HAF*A or HTM*4180.

HTM*3120 Operations Analysis in the Hospitality and Tourism Industry W (2-2) [0.50]
The analysis of operations in the hospitality and tourism industry with the aim of improving productivity of resources. Specific areas to be studied include the nature of productivity, the use of work study methods, the significance of statistical concepts and the application of operations research techniques.

Prerequisite(s): (HAF*A2030 or HTM*2030), STAT*2060
Equate(s): HAF*A3120
Restriction(s): Registration in B.Comm. HAF*A or HTM*4180.

HTM*3150 Experiential Learning in the Hospitality Industry U (3-0) [0.50]
An independent program of study formally integrating the student's academic study with a concentrated work experience. The study is to be decided by the student in consultation with the supervisory faculty (normally the department's Co-op Co-ordinator) prior to registration in the course.

Equate(s): HAF*A3150
Restriction(s): Registration in B.Comm. HAF*A or HTM*4180.

HTM*3160 Destination Management and Marketing F (3-0) [0.50]
This course examines the attractiveness of communities (urban and rural; domestic and international) for visitors and the implications that result from the development of a tourism industry. Methods to encourage visitation are explored as are the attempts to create and manage the development of the community and the tourism industry in a sustainable manner.

Prerequisite(s): HAF*A3100 or HTM*3100
Equate(s): HAF*A3160
Restriction(s): Registration in B.Comm. Tourism Management.

HTM*3180 Casino Operations Management W (0-0) [0.50]
The application of business principles, techniques and procedures within the casino management environment. Major topics included in the course are: the global and Canadian casino industries, electronic and table games, regulation and control, casino accounting and statistics, casino marketing, security and surveillance, human resources, customer service, and all components of operations management of a casino. Students must be legal age of 19 or over. (Offered Distance Education only).

Prerequisite(s): (HAF*A2200 or HTM*2200) and (1 of AGEC*2230, HAF*A3070, HTM*3070)
Restriction(s): Registration in B.Comm. HAF*A or HTM*4180.

HTM*3200 Club Management Operations U (3-0) [0.50]
This course examines the effective operation and management of private clubs including city clubs, country clubs and athletic clubs. Major topics include: the unique niche that clubs represent in the hospitality industry, the general manager/COO concept, organizational structure of clubs, role of the board of directors, membership requirements, differences between tax-exempt clubs, duties and responsibilities of department heads in private clubs, governmental regulations, preparing for a career in the club field, trends in club management and the future of clubs.

Prerequisite(s): 10.00 credits
Equate(s): HAF*A3200
Restriction(s): Registration in B.Comm. HAF*A or HTM*4180.

HTM*3250 Tourism in Canada W (3-0) [0.50]
This course will take an in-depth look at the tourism industry in Canada, including all eight sectors recognized by the Canadian Tourism Human Resources Council. Topics will include interrelationships among sectors; an overview of the development of tourism in Canada; economic, social, cultural and environmental impacts of tourism in Canada; and an examination of the issue of sustainability of tourism in Canada. Emphasis will be placed on existing and emerging tourism products (such as destination tourism, adventure tourism, eco-tourism, and First Nations' based tourism); government policies, initiatives, and funding at all levels from federal to municipal; various industry associations and their activities; educational initiatives; and the future of tourism in Canada.

Prerequisite(s): HAF*A3100 or HTM*3100
Restriction(s): Registration in B.Comm. HAF*A or HTM*4180.

HTM*3780 Economics of Food Usage W (3-0) [0.50]
Changing patterns in the food distribution chain, legislation and consumption habits affecting the economics and usage of foods.

Prerequisite(s): 1 of COST*1000, FOOD*2010, HAF*A2700, HTM*2700
Equate(s): COST*3780, HAF*A3780

HTM*4050 Wine and Oenology F (2-2) [0.50]
Provides students with knowledge about the wine industry and will emphasize knowledge about product, purchasing, pricing, and service.

Prerequisite(s): 10.00 credits
Equate(s): HAF*A4050
Restriction(s): Registration in B.Comm. HAF*A or Tourism Management.

HTM*4090 Hospitality and Tourism Facilities Management and Design F,W (2-2) [0.50]
This course will equip an individual to work as a knowledgeable member of a hospitality or tourism organization's design or re-design team. Efficient and effective space utilization and work/traffic flow for food and lodging facilities will be covered. Students will learn to read building drawings ("blueprints"). This course also will provide an understanding of the operation of a physical plant including such elements as systems maintenance, appropriate use of various materials, energy management, life cycle costing, and safety and security issues.

Prerequisite(s): 1 of HAF*A3090, HTM*3090, HAF*A3091/2
Equate(s): HAF*A4090
Restriction(s): Registration in B.Comm. HAF*A or Tourism Management.
HTM*4100 Organizational Behaviour II F,W (4-0) [0.50]
This course is concerned with the structure and dynamics of organizational open systems. It focuses on the external environment, technology, structure (and their interrelationships), organizational culture and change management. It addresses the actions that managers must take to insure that behaviour within the organization aids rather than impedes the achievement of overall organizational goals.

Prerequisite(s): (HAFA*2200 or HTM*2200), (HAFA*3000 or HTM*3000)
Equate(s): HAF A*4100
Restriction(s): Registration in B.Comm. HAFA, HAFA Co-op, Human Resource Management or Tourism Management.

HTM*4110 Restaurant Operations U (1-7) [0.50]
The management and operation of fine dining restaurants, and the study of major cuisines and classical cookery. Analysis of qualitative aspects of the restaurant business (ambience, total service package, and the dynamic relationship between service and the product of food and wine). Emphasis is placed upon creativity and authenticity in menu formulation, operational performance and guest satisfaction.

Prerequisite(s): 1 of HAFA*3090, HTM*3090, HAFA*3091/2
Equate(s): HAF A*4110
Restriction(s): Registration in B.Comm. HAFA, HAFA Co-op or Tourism Management.

HTM*4120 Hospitality Business Management U (3-0) [0.50]
A course that addresses small business and entrepreneurship in the hospitality and food service industry. Planning for and operating in these industries is highlighted throughout this course. Topics include: business planning, business valuation, franchising, sources of capital and specific operating factors that influence successes as a small business.

Prerequisite(s): 1 of AGEC*2230, HAFA*3070, HTM*3070
Equate(s): HAF A*4120
Restriction(s): Registration in B.Comm. HAFA, HAFA Co-op or Tourism Management.

HTM*4130 Current Management Topics U (3-0) [0.50]
Principal operating problems in the hospitality and tourism industry are analyzed and discussed using actual case studies. Students should check with the School of Hospitality and Tourism Management to determine what topic will be offered during specific semesters, and which prerequisites, if any, are appropriate.

Equate(s): HAF A*4130
Restriction(s): Registration in B.Comm. HAFA, HAFA Co-op or Tourism Management.

HTM*4140 Current Management Topics U (3-0) [0.50]
Principal operating problems in the hospitality and tourism industry are analyzed and discussed using actual case studies. Students should check with the School of Hospitality and Tourism Management to determine what topic will be offered during specific semesters, and which prerequisites, if any, are appropriate.

Equate(s): HAF A*4140
Restriction(s): Registration in B.Comm. HAFA, HAFA Co-op or Tourism Management.

HTM*4150 Current Management Topics U (3-0) [0.50]
Principal operating problems in the hospitality and tourism industry are analyzed and discussed using actual case studies. Students should check with the School of Hospitality and Tourism Management to determine what topic will be offered during specific semesters, and which prerequisites, if any, are appropriate.

Equate(s): HAF A*4150
Restriction(s): Registration in B.Comm. HAFA, HAFA Co-op or Tourism Management.

HTM*4160 Human Resources Planning W (4-0) [0.50]
Introduces the strategic planning role that human resources professionals play in organizations. Students will confront the challenges and demands of rightsizing, technological change, corporate repositioning, cost containment, productivity improvements, and the consequences of relocation, outplacement and retraining of staff. An understanding of the essential elements of the human resource planning process in organizations will be provided. Students will acquire knowledge in analyzing, assessing and programming for the human resource requirements of organizational, business and strategic plans.

Prerequisite(s): (HAFA*2200 or HTM*2200), (HAFA*3000 or HTM*3000)
Equate(s): HAF A*4160
Restriction(s): Registration in B.Comm. Human Resources Management.

HTM*4170 International Tourism Development and Management W (4-0) [0.50]
This course encourages students to develop a cross-cultural awareness of the objectives and issues regarding the development of tourism as well as the management of tourism venues in foreign locations. Students will be introduced to a variety of multinational tourism policies as well as strategic and structural approaches to the development of the industry through readings and case studies. Issues relating to ownership, joint ventures, human resources, marketing, risk management, operations, accounting and taxation will be discussed.

Prerequisite(s): (HAFA*3100 or HTM*3100), (HAFA*3160 or HTM*3160)
Equate(s): HAF A*4170
Restriction(s): Registration in B.Comm. Tourism Management.

HTM*4190 Hospitality and Tourism Operations Planning F,W (4-0) [0.50]
The course examines management and organization practices as they are applied to typical hospitality and tourism operational issues. Significant decision points and sub-system interrelationships are emphasized.

Prerequisite(s): (HAFA*3070 or HTM*3070), (HAFA*3080 or HTM*3080)
Co-requisite(s): AGE C*3320
Equate(s): HAF A*4190
Restriction(s): Registration in B.Comm. HAFA, HAFA Co-op or Tourism Management.

HTM*4200 Policy Issues in Hospitality and Tourism Management F,W (4-0) [0.50]
An integrative course intended to draw together the several disciplines in which hospitality and tourism management is based. Conceptual, analytical and decision-making skills will be developed through an extensive exposure to case studies.

Prerequisite(s): AGE C*3320, (HAFA*3070 or HTM*3070), (HAFA*3080 or HTM*3080)
Equate(s): HAF A*4200
Restriction(s): Registration in B.Comm. HAFA, HAFA Co-op or Tourism Management.

HTM*4300 Co-operative Education Seminar U (3-0) [0.50]
An integration of the students' academic studies with their work semester experiences provided by the co-operative program. Emphasis will be placed on students critically evaluating the application of theoretical concepts in different working environments.

Prerequisite(s): Registration in semester 7 of B.Comm. HAFA Co-op.
Equate(s): HAF A*4300

HTM*4390 Individuals and Groups in Organizations F,W (3-0) [0.50]
The course serves as an overview to organizational behaviour. It examines the individual, the group, the organization and how the three interrelate in order to enhance performance and productivity.

Prerequisite(s): 10.00 credits
Equate(s): HAF A*4390
Restriction(s): Not available to students registered in B.Comm. HAFA, HAFA Co-op, Human Resources Management or Tourism Management. Priority Access course. Enrolment may be restricted to particular programs or specializations. See department for more information.

HTM*4500 Special Study in Hospitality and Tourism U (3-0) [0.50]
The special study option is designed to provide senior undergraduate students with an opportunity to pursue an independent course of study. The topic selected will be determined by agreement between the student and the faculty member with expertise in the area.

Equate(s): HAF A*4500
Restriction(s): Registration in B.Comm. HAFA, HAFA Co-op or Tourism Management and instructor consent.
Human Kinetics

Department of Human Health and Nutritional Sciences.

HK*2270 Principles of Human Biomechanics W (3-1) [0.50]
Application of mechanical principles to the study of human movement. Topics include: motion analysis techniques, anthropometrics, biological tissue tolerance, muscle force generation, static and dynamic equilibrium, work/energy and impulse/momentum as they apply to the description of motion, injury of musculoskeletal tissues and optimization of human performance.
Prerequisite(s): PHYS*1000 or PHYS*1080
Equate(s): HK*3270

HK*3100 Neuromuscular Physiology W (3-0) [0.50]
Normal muscle movement is controlled by the motor cortex or by reflexes within the context of the sensory environment. This course will introduce key concepts in motor control of mammalian, human movement, coordination of movement, motor program selection, motor program execution, motor unit recruitment, skeletal muscle excitation-contraction coupling. This course is required for students wishing to gain certification by the Ontario Kinesiology Association.
Prerequisite(s): 1 of ENGG*2120, HK*3270, HK*3600

HK*3401 Human Anatomy F (2-3) [0.75]
First part of the two-semester course HK*3401/2. Refer to HK*3401/2 for course description.
Co-requisite(s): HK*3940 or instructor consent
Equate(s): HK*2910, HK*2920, HK*4951/2
Restriction(s): Restricted to B.S.C., Major in Human Kinetics or Neuroscience Minor.

HK*3401/2 Human Anatomy F-W [1.50]
A two-semester lecture and laboratory course in human anatomy which includes a detailed study of the skeleton, upper and lower limbs, thorax, abdomen, pelvis, perineum, head, neck and central nervous system. This is a two-semester course offered over consecutive semesters. When you select it you must select HK*3401 in the Fall semester and HK*3402 in the Winter semester. A grade will not be assigned to HK*3401 until HK*3402 has been completed.
Co-requisite(s): HK*3940 or instructor consent
Equate(s): HK*2910, HK*2920, HK*4951/2
Restriction(s): Registration in the B.S.C. Major in Human Kinetics or B-Medical Science. Instructor consent required.

HK*3402 Human Anatomy W (2-3) [0.75]
Second part of the two-semester course HK*3401/2. Refer to HK*3401/2 for course description.
Prerequisite(s): HK*3401

HK*3600 Applied Human Biology F (2-3) [0.75]
Laboratory techniques which are central to human biology are covered, together with their underlying concepts. Human performance and function are evaluated through cellular, organic, systemic and whole person studies. The study's technical competence and conceptual understanding are emphasized.
Prerequisite(s): HK*2270
Co-requisite(s): HK*3940 or permission of instructor
Restriction(s): Registration in the Human Kinetics major.

HK*3940 Human Physiology F (6-0) [1.25]
This course consists of a series of lectures, demonstrations and tutorials designed for students desiring a knowledge of physiological concepts as they apply to human beings. The course discusses cellular physiology, neurophysiology, endocrinology, and the physiology of the following systems: cardiovascular, renal, gastrointestinal and respiratory with an emphasis on the regulation of function.
Prerequisite(s): BIOL*2210
Equate(s): HK*3941/2

HK*4070 Clinical Biomechanics F (2-2) [0.50]
Functional human anatomy and mechanical characteristics of biological tissues at the impairment and repair levels. Pathomechanics of human movement resultant from disease, abuse or trauma. Etiology, testing and correction of functional disorders with special reference to balance, posture, and gait.
Prerequisite(s): 1 of ENGG*2660, HK*3270, HK*2270, HK*3600

HK*4230 Advanced Study in Human Biology and Nutritional Sciences S,F,W (3-0) [0.50]
Independent literature research of an approved topic to be decided by the student in consultation with a faculty advisor.
Prerequisite(s): 12.00 credits

HK*4240 Occupational Biomechanics and Ergonomics W (3-2) [0.75]
This course introduces the methods available for reducing musculoskeletal injuries in the workplace. Topics include: biomechanical, psychophysical, physiological, and integrated approaches to performing physical demands analyses, anatomy and etiology of low back injuries and upper limb disorders, principles of redesigning tasks to reduce the risk of injury, pre-employment screening and legislated guidelines. Students apply the course material to ergonomic assessments performed in industrial environments.
Prerequisite(s): 1 of ENGG*2120, HK*3270, HK*2270, HK*3600

HK*4320 Work Physiology W (3-3) [0.75]
The adjustments made by the physiological regulatory systems in response to common human activities will be identified and discussed. This will include an examination of limiting factors within each system.
Prerequisite(s): 1 of HK*3940, HK*3941/2, instructor consent

HK*4360 Research in Human Biology and Nutritional Sciences S,F,W (0-12) [1.00]
The student will select a research topic and design and complete a project in an area of interest, in consultation with a faculty advisor.
Prerequisite(s): 12.00 credits

HK*4371 Research in Human Biology and Nutritional Sciences II S,F,W (0-6) [0.50]
First part of the two-semester course HK*4371/2. Refer to HK*4371/2 for course description.
Prerequisite(s): 12.00 credits

HK*4371/2 Research in Human Biology and Nutritional Sciences II S,F,W-W (1.00)
The student will select a research topic and design and complete a project in an area of interest, in consultation with a faculty advisor. This is a two-semester course offered over consecutive semesters. When you select it you must select HK*4371 in the first semester and HK*4372 in the second semester. A grade will not be assigned to HK*4371 until HK*4372 has been completed.
Prerequisite(s): 12.00 credits

HK*4372 Research in Human Biology and Nutritional Sciences II F,W,S (0-6) [0.50]
Second part of the two-semester course HK*4371/2. Refer to HK*4371/2 for course description.
Prerequisite(s): HK*4371

HK*4410 Research Concepts W (3-0) [0.50]
An introduction to the research process in modern integrative biology and biomedical sciences. The course explores, through lectures, tutorials and practice, the theory and practice of scientific experimentation and communication.
Prerequisite(s): 12.00 credits

HK*4420 Research Modules F (3-0) [0.50]
This course is taught as a series of modules on various research topics that are current in laboratories of the Department of Human Health and Nutritional Sciences and the Department of Biomedical Science.
Prerequisite(s): 12.00 credits

HK*4460 Regulation of Human Metabolism W (3-0) [0.50]
The course focuses on the underlying metabolic events that occur in association with exercise. Skeletal muscle metabolism and substrate delivery are discussed with respect to the intracellular biochemical events integrated with both the endocrine and the chemical aspects of neural mechanisms.
Prerequisite(s): 1 of HK*3940 or HK*3941/2, HK*4230, HK*4520, NUTR*4210 or instructor consent required

HK*4540 Cardio-respiratory Laboratory W (1-2) [0.25]
This lab-based course will provide the student with a knowledge of classical and recent techniques for cardio-respiratory data collection. Cardio-respiratory responses to increased metabolic demand are a major focus. The lab is comprised of regular lab exercises and small group projects.
Prerequisite(s): HK*3940
HK*4550 Human Cardio-respiratory Physiology W (4-0) [0.75]
The central focus is a comprehensive examination of the effects of a variety of work parameters on normal cardio-respiratory adjustments required to meet metabolic demands. Immediate adjustments to increase metabolic rate as well as long term cardio-respiratory adaptability will be discussed.
Prerequisite(s): 1 of HK*3940, HK*3941/2, instructor consent
Restriction(s): HK*4530

HK*4670 Prosthetic Biomechanics W (3-1) [0.50]
Prerequisite(s): ENGG*2660 or HK*4070
HUMN*3200 Latin American Studies in the Humanities W (1-2) [0.50]
An integrated course of studies in the humanities as they relate to the resources of Latin America.
Prerequisite(s): Admission to the Latin America semester, consent of the instructor and satisfactory participation in a bi-weekly preparation seminar during the fall semester.

HUMN*3420 Late 18th-and 19th-Century Drama W (3-0) [0.50]
German-language drama from ca. 1780 to ca. 1900 within a European context, including enlightenment, revolutionary and naturalist drama. Texts are read in English. Students who want a German credit must be registered in GERM*3420. Lectures are in English and the laboratory is conducted in German. (Offered in even-numbered years.)
Prerequisite(s): 5.00 credits
Equate(s): GERM*3420

HUMN*3430 Tradition and Innovation in 20th-Century Drama W (3-0) [0.50]
Trends, themes and theories in 20th-century German-language drama, with particular focus on significant innovations (e.g. expressionist drama, Brecht's epic theatre. Texts are read and discussed in English. Students who wish for a German credit must register for GERM*3430. (Offered in odd-numbered years.)
Prerequisite(s): 5.00 credits
Equate(s): GERM*3430

HUMN*3450 20th-Century German Literature and Film F (3-0) [0.50]
This course considers significant social, political, and artistic events and movements of the 20th century in German-speaking countries as reflected in film and literature. Topics may include fin de siècle, expressionism, decadence, gender relations, National Socialism, holocaust, GDR, war, post-war society. Filmmakers may include R. W. Fassbinder, S. Kubrik, F. Lang, V. Visconti, V. Schlöndorff. Authors may include T. Mann, F. Kafka, C. Wolf, H. Hesse. Lectures and texts are in English. Students who wish for a German credit must register for GERM*3450. (Offered in odd-numbered years.)
Prerequisite(s): 5.00 credits
Equate(s): GERM*3450

HUMN*3501 Independent Interdisciplinary Research Project F (3-0) [0.50]
First part of the two-semester course HUMN*3501/2. Refer to HUMN*3501/2 for course description.
Restriction(s): Instructor consent required.

HUMN*3501/2 Independent Interdisciplinary Research Project F-W [1.00]
A two-semester course designed for students enrolled in the B.A. program in 1 of the College of Arts disciplines. Students in a general program with no major must seek the approval of the B.A. program counsellor. Students will prepare proposals for independent research projects spanning 2 or more disciplines, at least 1 of which must be from the College of Arts, and arrange for faculty members representing at least 2 of these disciplines to provide supervision. Projects are subject to the approval of the department(s) or school(s) concerned and must be submitted to the appropriate chair(s) or director(s) by the end of the course selection period prior to beginning the course. Subject to approval, this course may be accepted as credit towards an honours major in Art History, Drama, English, Studio Art, French, History, German, Italian, Spanish, Classical Languages, Classical Studies, Music and Philosophy. This is a two-semester course offered over consecutive semesters. When you select it you must select HUMN*3501 in the Fall semester and HUMN*3502 in the Winter semester. A grade will not be assigned to HUMN*3501 until HUMN*3502 has been completed.

HUMN*3502 Independent Interdisciplinary Research Project W (3-0) [0.50]
Second part of the two-semester course HUMN*3501/2. Refer to HUMN*3501/2 for course description.

HUMN*4170 Don Quixote and the Picarosque Novel (In English) F (3-0) [0.50]
This course will study, in English, the importance of this Spanish masterpiece in the 20th century in Spanish-speaking countries as reflected in film and literature. Topics include "fin del seculo", expressionism, decadence, gender relations, National Socialism, holocaust, GDR, war, post-war society. Filmmakers may include R. W. Fassbinder, S. Kubrik, F. Lang, V. Visconti, V. Schlöndorff. Authors may include T. Mann, F. Kafka, C. Wolf, H. Hesse. Lectures and texts are in English. Students who wish for German credit must register for GERM*3450. (Offered in odd-numbered years.)
Prerequisite(s): 5.00 credits
Equate(s): GERM*3450

HUMN*3300 Myth and Fairy Tales in Germany F (3-0) [0.50]
The course explores the role of mythology, fairy tales and legends in late 18th- and 19th-century German literature and culture in the context of socio-political developments. Topics may include the formation of a national identity, the allegorical fairy tale and its role in Romanticism, women and the fairy tale, the fairy tale and the socialization of children (incl. Disney), romantic mythology in music, art and literature. Authors may include Goethe, Brothers Grimm, ETA Hoffmann, Wagner. Lectures and texts are English. Students registered in GERM*3300 will meet a fourth hour per week to discuss texts in German. This course is offered in conjunction with GERM*3302. (Offered in even-numbered years.)
Prerequisite(s): 5.00 credits
Equate(s): GERM*3302

Restriction(s): GERM*3440, HUMN*3440

HUMN*3301 London Studies in the Humanities W (2-3) [0.50]
An integrated course of studies in the Humanities (including 2 or more of theatre, visual arts, history, music, literature and philosophy) as they relate to London cultural resources. For London Semester students only.
Prerequisite(s): Admission to London Semester.

HUMN*33150 Paris Studies in the Humanities W (2-3) [0.50]
An integrated course of study in the Humanities (including 2 or more of theatre, visual arts, history, music, literature and philosophy) as they relate to Paris cultural resources. For Paris Semester students only.
Prerequisite(s): Admission to Paris Semester.

HUMN*3360 Contemporary Latin American Fiction W (3-0) [0.50]
This course will examine, in English, why and how the leading figures, such as Borges, Cortazar, Garcia Marques, Carpenter, Isabel Allende, and Luisa Valenzuela have "made" history, not only in the way they have recreated the Latin American historical reality, but also in the way they have reformed the Hispanic literature. Two lectures per week in English and one seminar per week in Spanish. Final essay and examination will be in English, short presentations and compositions will be in Spanish. Students who select the course under the listing of HUMN*3360 will attend the first two hours. They will write a research essay. (Offered in odd-numbered years.)
Equate(s): SPAN*3360

HUMN*3370 Women, Virtue and Honour in Spanish Drama (In English) F (3-0) [0.50]
This is a topic-oriented course which will study, in English, major Spanish dramas, seventeenth-century works such as Lope de Vega's Fuentevieja, Calderon's Life is a Dream, Tirso de Molina's Don Juan, and twentieth-century plays such as Garcia Forca's The House of Bernarda Alba and Blood Wedding. In addition to the thematic focus, these texts will be studied for their artistic merit and for the specificity of the Spanish "comedia". Where appropriate, this course will also discuss the influence of Spanish themes on the European culture. Students who select the course under the listing of SPAN*3370 will do selected readings and assignments in Spanish.
Equate(s): SPAN*3370

HUMN*3310 Introduction to Polish History and Culture F (6-4) [1.00]
The core course for the Krakow Semester consisting of three major components: 1) Polish language training, 2) a general introduction to Polish geography, politics and contemporary life and, 3) Polish history and the arts. For Krakow Semester students only.
Prerequisite(s): Admission to Krakow Semester.

HUMN*3220 Krakow Studies in the Humanities I F (3-2) [0.50]
An integrated course of studies in the humanities as they relate to the resources of Krakow, Poland. For Krakow Semester students only.
Prerequisite(s): Admission to the Krakow Semester.

HUMN*3230 Krakow Studies in the Humanities II F (3-2) [0.50]
An integrated course of studies in the humanities as they relate to the resources of Krakow, Poland. For Krakow Semester students only.
Prerequisite(s): Admission to the Krakow Semester.

HUMN*3240 India Studies in the Humanities W (3-0) [0.50]
An integrated course of studies in the humanities as they relate to India. This course looks at selected aspects of one or more areas in the humanities, including Indian religions, philosophy, literature (in English), history, language (Hindi), art and music. For India Semester students only.
Prerequisite(s): Admission to the India Semester.
### Interdisciplinary Physical Science

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
<th>Prerequisite(s)</th>
<th>Restriction(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>IPS*4001</td>
<td>Chemical Physics Research Project F (0-9) [0.75]</td>
<td>First part of the two-semester course. Refer to IPS*4001/2 for course description.</td>
<td>(CHEM<em>3870 or CHEM</em>4880), PHYS<em>3100 (of which CHEM</em>3870 may be taken concurrently)</td>
<td>Instructor consent required.</td>
</tr>
<tr>
<td>IPS*4001/2</td>
<td>Chemical Physics Research Project F-W [1.50]</td>
<td>A two-semester research project supervised by a faculty member from Physics or from Chemistry and Biochemistry, or by a pair of faculty members spanning the 2 departments in order to expand cross disciplinary opportunities. Students will participate in the seminar and reporting activities of either CHEM<em>4900, CHEM</em>4910 or PHYS<em>4500, PHYS</em>4510, and may utilize modules from PHYS<em>4500 as preparation if necessary. This is a two-semester course offered over consecutive semesters. When you select it you must select IPS</em>4001 in the Fall and IPS<em>4002 in the Winter semester. A grade will not be assigned to IPS</em>4001 until IPS*4002 has been completed.</td>
<td>(CHEM<em>3870 or CHEM</em>4880), PHYS<em>3100 (of which CHEM</em>3870 may be taken concurrently)</td>
<td>Instructor consent required.</td>
</tr>
<tr>
<td>IPS*4002</td>
<td>Chemical Physics Research Project W (0-9) [0.75]</td>
<td>Second part of the two-semester course. Refer to IPS*4001/2 for course description.</td>
<td>IPS*4001</td>
<td></td>
</tr>
</tbody>
</table>
### Interdisciplinary Social Science

**ISS*2000 Asia U (3-0) [0.50]**
This course will survey China and/or India, noting the major historical trends, cultural factors, economic systems, and political institutions and political processes. Department of Political Science.

**ISS*2500 Management in Organizations F,W (3-0) [0.50]**
A first course in management designed to consider the management of any organization whether profit-motivated or non-profit, private or public, from the perspective of the social sciences. School of Hospitality and Tourism Management.

**ISS*2990 Introduction to Marx W (3-0) [0.50]**
An interdisciplinary course designed to acquaint students with the thought of Karl Marx. Departments of History, Philosophy, Political Science and Sociology and Anthropology.

**ISS*3100 London Studies in the Social Sciences W (2-3) [0.50]**
An integrated course of studies in the social sciences as they relate to the resources of London. For London Semester students only.

**ISS*3150 Paris Studies in the Social Sciences W (2-0) [0.50]**
An integrated course of studies in the social sciences as they relate to the resources of Paris. For Paris Semester students only.

**ISS*3250 Krakow Studies in the Social Sciences I F (3-2) [0.50]**
An integrated course of studies in the social sciences as they relate to the resources in Krakow, Poland. For Krakow students only.

**ISS*3260 Krakow Studies in the Social Sciences II F (3-2) [0.50]**
An integrated course of studies in the social sciences as they relate to the resources in Krakow, Poland. For Krakow students only.

**ISS*3270 India Studies in the Social Sciences W (3-0) [0.50]**
An integrated course of studies in the social sciences as they relate to India. This course looks at selected aspects of one or more areas in the social, geographic, economic and political aspects of Indian society. For India Semester students only.

**ISS*3300 Latin American Studies in the Social Sciences W (1-2) [0.50]**
An integrated course of studies in the social sciences as they relate to the resources of Latin America.

**ISS*3420 Women Social and Political Theorists W (3-0) [0.50]**
The writings of seventeenth and nineteenth century women social and political theorists will be explored as contributing to the development of classical and contemporary social and political theory. These women wrote on status of women and gender role issues as well as dealing with such fundamental matters as the nature and origin of society/social contract, political rights and obligations, government, constitutional change, revolution, slavery, socialism, the welfare state, imperialism and racism. An important feature of the course would be to show women theorists' contributions on central political interests and the integration of gender issues with those of class and race. Department of Sociology and Anthropology and Department of Political Science.

**ISS*4000 Research Project in Environmental Studies F,W (3-0) [0.50]**
This course is required of all senior students in the Environmental Studies Minor. It provides an opportunity to formulate and investigate an issue of environmental concern from an integrative human and biophysical perspective. Students must consult with the Environmental Studies co-ordinator before course selection. Department of Geography.

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2005-2006 University of Guelph Undergraduate Calendar Last Revision: October 18, 2005
**Interdisciplinary University**

UNIV*3500, UNIV*3550 and UNIV*4500 are re-numbered and now appear under Environmental Design and Rural Development (EDRD)

### UNIV*1200 First Year Seminar W (3-0) [0.50]

First Year Seminars are interdisciplinary courses designed especially for first year students. The goal of the First Year Seminar course is to provide opportunities for students to participate in small enrolment, discussion-oriented classes in their first year. Different seminar topics are offered each year in each separate course section, reflecting the particular research or professional interest of the course instructor. The seminar course counts as a free elective in the student's Schedule of Studies. For information about how the seminar courses may in some cases fulfill particular program distribution requirements, students should contact their program counsellor. A list of current and archived offerings is available by following the links on the First Year Seminars web page.

**Restrictions:** Fewer than 5.00 credits.

### UNIV*1250 Experiential Learning Opportunity I: Peer Helper U (0-0) [0.00]

Open only to students who have been accepted into the Peer Helper program. This 0.00 credit course recognizes the successful completion of the Peer Helper program and a supervised field experience in an approved Peer Helper placement. A pass/fail grade will not be assigned to UNIV*1250 until UNIV*1260 has been completed. Students who wish to enroll in this course should see Student Life and Career Services for more information.

**Restrictions:** Instructor consent required and acceptance in the Peer Helper program.

### UNIV*1260 Experiential Learning Opportunity II: Peer Helper U (0-0) [0.00]

Open only to students who have been accepted into the Peer Helper program. This 0.00 credit course recognizes the successful completion of the Peer Helper program and a supervised field experience in an approved Peer Helper placement. A pass/fail grade will be assigned at the end of the completion of both UNIV*1250 and UNIV*1260. Students who wish to enroll in this course should see Student Life and Career Services for more information.

**Prerequisite(s):** UNIV*1250

### UNIV*2000 Foundations of Leadership F (3-0) [0.50]

Using an integrated approach to studying leadership, this foundation course covers history, evolving theories, models, and research both from a theoretical point of view and practical application. This course will use a seminar style with applied workshops, class discussions, guest speakers, and student participation. Students will prepare elements of a skills portfolio and a research paper. This is a required course for the Certificate in Leadership.

**Restrictions:** Instructor consent required.

### UNIV*2050 The 5000 Days S,F,W (3-0) [0.50]

An interdisciplinary approach to environmental issues which offers opportunities to investigate social processes and philosophical considerations with respect to the position and influence of humankind, and the development of social conditions, values and economic activities that have led to our present situation. These investigations are carried out within the context of physical environmental considerations, such as the sate of the earth, forests, air water and our use of energy, and will lead the student to a detailed consideration of the future. (Offered through distance education format only.)

**Registrations:**

### UNIV*2250 Experiential Learning Opportunity III: Peer Helper U (0-0) [0.00]

Open only to students who have been accepted into the Peer Helper program. This 0.00 credit course recognizes the successful completion of the Peer Helper program and a supervised field experience in an approved Peer Helper placement. A pass/fail grade will not be assigned to UNIV*2250 until UNIV*2260 has been completed. Students who wish to enroll in this course should see Student Life and Career Services for more information.

**Prerequisite(s):** UNIV*1250, UNIV*1260

### UNIV*2260 Experiential Learning Opportunity IV: Peer Helper U (0-0) [0.00]

Open only to students who have been accepted into the Peer Helper program. This 0.00 credit course recognizes the successful completion of the Peer Helper training program and a supervised field experience in an approved Peer Helper placement. A pass/fail will be assigned at the end of the completion of both UNIV*2250 and UNIV*2260. Students who wish to enroll in this course should see Student Life and Career Services for more information.

**Prerequisite(s):** UNIV*2250

### UNIV*3010 University Studies in London I S (3-0) [0.50]

An intensive and integrated course of study in the arts, social sciences and/or sciences as they relate to the resources of London. For London Summer Session students only.

**Prerequisite(s):** Admission to the London Summer Session.

### UNIV*3020 University Studies in London II S (3-0) [0.50]

An intensive and integrated course of study in the arts, social sciences and/or sciences as they relate to the resources of London. For London Summer Session students only.

**Prerequisite(s):** Admission to the London Summer Session.

### UNIV*3150 University Studies in Paris I W (2-3) [0.50]

An integrated course of study in subject areas that will vary from year to year but relate to resources in Paris.

**Prerequisite(s):** Admission to the Paris Semester.

### UNIV*3160 University Studies in Paris II W (2-3) [0.50]

An integrated course of study in subject areas that will vary from year to year but relate to resources in Paris.

**Prerequisite(s):** Admission to the Paris Semester.

### UNIV*3170 University Studies in Paris III W (2-3) [0.50]

An integrated course of study in subject areas that will vary from year to year but relate to resources in Paris.

**Prerequisite(s):** Admission to the Paris Semester.

### UNIV*3250 Beyond the 5000 Days S,F,W (3-0) [0.50]

The complexity and dimensions of key environmental issues introduced in UNIV*2050 are explored in greater detail. This will facilitate the student's ability to critically evaluate socio-economic-environmental linkages between contemporary challenges such as sustainable resources, energy, human population, education and communication, and environmental ethics. Supplementary voluntary workshop. (Offered through distance education format only.)

**Prerequisite(s):** UNIV*2050

### UNIV*3400 Watershed Planning Practice S,F,W (3-0) [0.50]

This course provides a comprehensive review of watershed planning as practiced under the watershed planning initiative in Ontario. It also provides an introduction to watershed planning in other contexts (Canada, U.S.A. and developing world). The materials covered include watershed science and its application in planning and development of watershed programs at the local and municipal level. Case studies of existing watershed planning processes and programs are employed to demonstrate the application of the planning tools. Application of the watershed plans in the context of municipal official plans, plan of subdivision and part lot control are examined, along with a review of innovative planning tools (performance zoning, density control, and open space systems planning).

(Offred through distance education format only.)

**Prerequisite(s):** 1 of AGR*2301, BIOL*1040, ENGG*2550, GEOG*2000 or GEOG*2210, SOAN*3300 or instructor consent

### UNIV*4000 Leadership Capstone W (3-0) [0.50]

Changes taking place in organizations and work, and the advanced level, general skills needed by university graduates in the workplace will be explored. In addition, transition issues, such as the change from the role of 'student' to 'employee' or 'entrepreneur', will be examined. Based on experience in their leadership placements, students will examine the relationships between leadership theory and practice. Students will be encouraged to study leadership issues that relate to professions in the disciplines. They will work on an action project that will involve researching creative approaches to leadership issues. This is a required course for the Certification Leadership.

**Prerequisite(s):** UNIV*2000 plus 120 hours of placement experience.

**Restrictions:** Instructor consent required.
International Development

IDEV*2010 International Development Studies W (3-0) [0.50]
An introduction to a broad range of topics in international development as studied by various researchers and from perspectives of different social-science disciplines. Special emphasis will be placed on research arising from the seven areas of emphasis in the undergraduate CIDS program, the integration of diverse disciplines and paradigms, and the implications for public policy. Students in the International Development major should complete this course before semester five. Students who do not have the stated prerequisites may seek approval from the faculty advisor for International Development to enroll.

Prerequisite(s): (ANTH*1150 or ECON*1050), (POLS*2080 or ENVS*2010)
Restriction(s): Registration in the International Development major, minor or area of concentration or in the Development & Stewardship area of concentration for B.Sc.(Env.) or in the International Trade and Development area of emphasis for BA.APEC.

IDEV*3010 Case Studies in International Development W (3-0) [0.50]
An in-depth examination of select case studies in international development.

Prerequisite(s): 10.00 credits including IDEV*2010
Restriction(s): Registration in BA International Development major. 68% average in all course attempts in the International Development core.

IDEV*3200 Individual Work/Study in International Development S,F,W (3-0) [0.50]
This course is intended for students who seek to combine work and study in development with their academic course work. It may be used in connection with internships or work at international development agencies or other appropriate businesses and organizations (in Canada and abroad), for research and/or experience in a developing country, or for other practica or programs. Any faculty member at the University of Guelph with appropriate expertise may supervise the work/study project. In each case, the student and faculty member will agree on an outline of the work/study project and evaluation criteria. In all cases the project will involve a writing component.

Prerequisite(s): 10.00 credits
Restriction(s): Written approval of the faculty advisor for International Development.

IDEV*4190 Regional Context S,F,W (1.5-0) [0.25]
In this course students will learn about a region that they intend to study further in an advanced work/study project (IDEV*4200) or in a structured semester abroad. It may be offered as a reading course or as a seminar.

Prerequisite(s): 10.00 credits including IDEV*2010
Restriction(s): Written approval of the faculty advisor for International Development.

IDEV*4200 Advanced Work/Study in International Development S,F,W (3-0) [0.75]
Individual work/study option at an advanced level. See IDEV*3200 for course description.

Prerequisite(s): IDEV*4190
Restriction(s): Written approval of the faculty advisor for International Development.

IDEV*4500 International Development Seminar F,W (3-0) [0.75]
This course brings together students in international development in their final year of study to examine key debates and to integrate knowledge from different areas of emphasis in the specialization. Students draw from a variety of disciplinary and inter-disciplinary perspectives in lectures, text-based seminars and in reaction to guest speakers. In addition, students develop and present research projects which focus theoretical insight on practical concerns.

Prerequisite(s): 15.00 credits
Restriction(s): Registration in BA International Development major. 68% average in all course attempts in the International Development core. Written approval of the faculty advisor for International Development.
### Italian Studies

School of Languages and Literatures.

**Note:** Literary texts are, at all levels, studied in the original language. Students registering in these courses will be expected to have the appropriate knowledge.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Prerequisite(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITAL*1060</td>
<td>Introductory Italian I F (3-1)</td>
<td>0.50</td>
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<tr>
<td>ITAL*1070</td>
<td>Introductory Italian II W (3-1)</td>
<td>0.50</td>
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</tr>
<tr>
<td>ITAL*2060</td>
<td>Intermediate Italian I F (3-0)</td>
<td>0.50</td>
<td>ITAL*1070 or OAC Italian</td>
</tr>
<tr>
<td>ITAL*2070</td>
<td>Intermediate Italian II W (3-0)</td>
<td>0.50</td>
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</tr>
<tr>
<td>ITAL*2350</td>
<td>Contemporary Italian Literature W (3-0)</td>
<td>0.50</td>
<td>ITAL*2070</td>
</tr>
<tr>
<td>ITAL*3060</td>
<td>Advanced Italian F (3-0)</td>
<td>0.50</td>
<td></td>
</tr>
<tr>
<td>ITAL*3150</td>
<td>Medieval Italian Literature F (3-0)</td>
<td>0.50</td>
<td>ITAL*2070</td>
</tr>
<tr>
<td>ITAL*3280</td>
<td>Renaissance Italian Literature W (3-0)</td>
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<td>ITAL*2070</td>
</tr>
<tr>
<td>ITAL*3530</td>
<td>Business Italian W (3-0)</td>
<td>0.50</td>
<td>ITAL*3060</td>
</tr>
<tr>
<td>ITAL*3950</td>
<td>Topics in Italian Literature F,W W (3-0)</td>
<td>0.50</td>
<td></td>
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<tr>
<td>ITAL*3960</td>
<td>Topics in Italian Literature F,W (3-0)</td>
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<tr>
<td>ITAL*3970</td>
<td>Topics in Italian Literature F,W (3-0)</td>
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<tr>
<td>ITAL*4900</td>
<td>Research Paper in Italian Studies F,W (3-0)</td>
<td>0.50</td>
<td>ITAL*3960</td>
</tr>
</tbody>
</table>

*Prerequisite(s):* Restricted to the 6th semester in the Italian honours program.
LARC*1100 Design and Communications Studio F (3-3) [0.75]
An introduction to the physical design professions with emphasis on the role of landscape architects. Emphasis on introduction of design awareness, process, communication skills and creativity.
Prerequisite(s): Registration in the B.L.A. program.

LARC*1950 History of Cultural Form I F (4-0) [0.50]
This course explores the cultural form expressed in landscapes from ancient times to the 18th century. (Offered through distance education format only.)

LARC*2020 Design Studio W (2-4) [0.75]
An examination of the theory, process and vocabulary of spatial design. An exploration of the social, psychological, and behavioural forces a designer must respond to. An introduction to landscape analysis.
Prerequisite(s): LARC*1100
Restriction(s): Registration in the B.L.A. program.

LARC*2100 Landscape Analysis F (2-2) [0.50]
A study of biophysical factors and their influence on design. Including soils, climate, vegetation, hydrology, and fauna. Natural and cultural systems interpretation, site assessment methods, and data presentation techniques will be outlined. Students will formulate and conduct site assessments that include resource inventories and the analysis for land use suitability.
Prerequisite(s): BOT*1150, LARC*2020
Co-requisite(s): LARC*3040

LARC*2330 Planting Design I W (1-2) [0.25]
Visual and physical characteristics of plants and their use. Design theory and its application at a site specific scale. Study of the use of plants in a wide range of applications.

LARC*2340 Planting Design II F (1-2) [0.25]
Visual and physical characteristics of plants and their use. Design theory and its application at a site specific scale. Study of the use of plants in a wide range of applications.
Prerequisite(s): LARC*2330

LARC*2410 Site Engineering F (3-1) [0.50]
A focus on contour grading to facilitate circulation, stormwater runoff, and design intent. Aspects of surveying, plotting, as well as runoff and cut and fill calculations.
Prerequisite(s): LARC*2020, LARC*2420

LARC*2420 Materials and Techniques W (3-0) [0.50]
The study of materials commonly used for landscape construction. Specification of procedures and materials for contractual purposes. Detail drafting.
Prerequisite(s): LARC*1100

LARC*2820 Urban and Regional Planning W (3-0) [0.50]
Introduction to the evolution and history of planning and its conceptual base. A study of the theoretical foundations of planning. Emphasis on the Canadian scene and on Canadian planning literature.

LARC*2950 History of Cultural Form II W (4-0) [0.50]
This course follows History of Cultural Form I (LARC*1950) and explores the cultural form of 19th century reform period through to contemporary design developments. (Offered through distance education format only.)

LARC*3040 Site Planning and Design Studio F (2-4) [0.75]
Application of the site planning process, including programming, site analysis, functional analysis and diagramming. Application of design theory and landscape analysis to site design.
Prerequisite(s): LARC*2020
Co-requisite(s): HORT*3260, LARC*2100

LARC*3050 Landscape Architecture I W (2-4) [0.75]
Lectures and projects emphasizing the integration of design theory, skills and knowledge using site scale and urban design projects. Highlighting the use of contemporary history.
Prerequisite(s): LARC*3040

LARC*3060 Landscape Architecture II F (2-4) [0.75]
Application of the landscape architectural design process to conservation, development and rehabilitation of landscapes. Projects at an intermediate scale focusing on biophysical, cultural and visual resources as primary design determinants. Emphasis on secondary research, analysis, program development, alternative concepts and design master planning.

LARC*3070 Landscape Architecture III F (2-6) [1.00]
Exercises in regional scale design and master planning to provide an understanding of the integrative design process that considers ecological, technological, socio-economic, human and aesthetic factors in the land development process. Projects focus on land planning, community design, urban design, and public involvement and communication.
Prerequisite(s): LARC*3060

LARC*3430 Landscape Construction I W (2-4) [0.50]
Lectures and studio exercises that integrate construction documentation with design. The technical procedures needed to direct design implementation including layout, grading, utility design, and planting plans.
Prerequisite(s): LARC*2410

LARC*3440 Landscape Construction II F (2-4) [0.75]
Production of construction drawings, documents and cost estimates using computer and manual techniques.
Prerequisite(s): LARC*3430
Co-requisite(s): LARC*3060

LARC*3500 Independent Study F,W (0-6) [0.50]
Each student establishes, in consultation with the faculty member chosen, the content of special study within the area of expertise of that instructor.
Prerequisite(s): LARC*3040

LARC*4090 Seminar W (3-0) [0.50]
An integrated overview of professional issues involving practice, ethics, environmental concerns, government policy, research needs and professional responsibilities to society. Emphasis on writing and oral presentations.
Prerequisite(s): LARC*3040

LARC*4101 Design Thesis F (1-2) [0.50]
First part of the two-semester course LARC*4101/2. Refer to LARC*4101/2 for course description.
Prerequisite(s): LARC*3050, LARC*3440

LARC*4102 Design Thesis W (2-6) [1.00]
Second part of the two-semester course LARC*4101/2. Refer to LARC*4101/2 for course description.
Prerequisite(s): LARC*4101

LARC*4210 Professional Practice F-W (1-3) [1.00]
A study of the major objectives, policies and administrative practices of the principal park and recreation agencies at various levels of government, with an emphasis on trends and implications for future roles and administrative policies of these agencies. (Offered in odd-numbered years.)
Prerequisite(s): 1.00 credits at the 2000 level in social sciences or three semesters of the B.L.A. program

LARC*4610 Professional Practice F (3-0) [0.50]
Lectures and assignments dealing with professional ethics, organizations, contract law and procedures, relationships with clients, contractors and professional practitioners, office procedure and professional promotion practices and trends.
Prerequisite(s): LARC*3050

LARC*4620 Internship in Landscape Architecture S,F,W (0-10) [1.00]
An experiential learning opportunity requiring professional office experience and faculty supervision under program regulations. Actual work experience for academic credit. Students are required to submit a project or paper as part of the course requirements.
Prerequisite(s): LARC*3050

LARC*4730 Special Study in Landscape Architecture F (0-4) [0.50]
Supervised independent study involving competitions, special projects, modules, and other formats.
Prerequisite(s): LARC*3050
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Description</th>
<th>Prerequisite(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LARC*4740</td>
<td>Travel and field studies of selected projects as approved by a faculty member. Students are required to submit a project or paper.</td>
<td>LARC*3040</td>
</tr>
</tbody>
</table>
# Latin

School of Languages and Literatures.

Note: Literary texts are, at all levels, studied in the original language. Students registering in these courses will be expected to have the appropriate knowledge. Higher level courses in Latin are available as language modules attached to selected Classical Studies courses which are taken as double-weighted courses. (See Classical Studies course descriptions.)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAT*1100</td>
<td>Preliminary Latin I F (3-0) [0.50]</td>
<td>A beginning course in Latin providing the fundamentals of structure and grammar. (This course may not be taken by anyone who has OAC Latin).</td>
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<tr>
<td>LAT*1110</td>
<td>Preliminary Latin II W (3-0) [0.50]</td>
<td>A continuation of LAT*1100.</td>
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<tr>
<td></td>
<td>Prerequisite(s): LAT*1100 or Year 4 (Grade 12) Latin</td>
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<tr>
<td>LAT*2000</td>
<td>Latin Literature F (3-0) [0.50]</td>
<td>A course in Latin literature based on relevant texts.</td>
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<td></td>
<td>Prerequisite(s): OAC Latin or LAT*1100</td>
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<tr>
<td>LAT*4100</td>
<td>Directed Readings in Latin Literature F (3-0) [0.50]</td>
<td>A reading course in Latin Literature designed according to the needs and the interests of the individual student.</td>
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<tr>
<td></td>
<td>Prerequisite(s): CLAS<em>3060 or CLAS</em>3120</td>
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<tr>
<td>LAT*4150</td>
<td>Research Paper: Latin F,W (3-0) [0.50]</td>
<td>A major essay on an area of study to be determined in consultation with the Classics Faculty in the School.</td>
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<tr>
<td></td>
<td>Prerequisite(s): CLAS<em>3060 or CLAS</em>3120</td>
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<tr>
<td>LING*1000</td>
<td>Introduction to Linguistics W (3-0) [0.50]</td>
<td>The nature of language. An elementary survey of linguistic disciplines. Phonetics, morphology, syntax, semantics, language, and society.</td>
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</tr>
</tbody>
</table>
Marketing and Consumer Studies

Department of Marketing and Consumer Studies.

For courses without semester designations, please check with the department. Advance schedules are available in the department.

COST*1000 Introduction to Marketing Management S,F,W (3-0) [0.50]

An examination of the process of analyzing, planning, implementing, coordinating, and controlling programs involved in the conception, pricing, promotion, and distribution of products, services, and ideas designed to create and maintain beneficial exchanges with target markets for the purpose of achieving public and private organizational objectives. (Also offered through distance education format.)

Restriction(s): This is a Priority Access Course and some restrictions may apply during some time periods. Please contact the department for more information.

This course may not be taken for credit subsequent to receiving credit in AGE*C*4370 or HTM*3080.

COST*1400 Introduction to Design W (3-0) [0.50]

Designed to increase visual awareness and recognition of natural and planned design elements in the environment. Investigation of the roles of designers and an understanding of design as an applied process that responds to human needs.

Restriction(s): This is a Priority Access Course and some restrictions may apply during some time periods. Please contact the department for more information.

COST*1800 Housing and Community Planning F (3-0) [0.50]

A general survey of the developing residential environment in the modern community. The social, psychological, economic, physical and political dimensions of housing and urban development are included.

Restriction(s): This is a Priority Access Course and some restrictions may apply during some time periods. Please contact the department for more information.

COST*2020 Information Management S,F,W (2-2) [0.50]

Introduces the concepts and principles of information acquisition, manipulation and management as relevant to organizational decision-making. Provides experience in the applications of information technology as practiced in organizations. Students with credit for this course may not proceed to CIS*1000, CIS*1200.

Prerequisite(s): 5.00 credits

Restriction(s): This is a Priority Access Course and some restrictions may apply during some time periods. Please contact the department for more information.

COST*2100 Personal Financial Management W (3-0) [0.50]

An introductory course designed to meet the professional needs of those in teaching, counselling and community service, as well as personal goals in financial management. (Also offered through distance education format.)

Prerequisite(s): 5.00 credits

Restriction(s): This is a Priority Access Course and some restrictions may apply during some time periods. Please contact the department for more information.

COST*2300 Technology and the Consumer F,W (3-0) [0.50]

A review of major high technology events and their utilization in product development processes; the positive and negative impact of these technologies on consumers and their life styles will be emphasized.

Prerequisite(s): 5.00 credits or instructor consent

COST*2600 Fundamentals of Consumer Behaviour F,W (3-0) [0.50]

In the long run organizations survive and achieve their goals by satisfying the needs and wants of consumers as well as or better than their competitors. This course examines consumer behaviours, the economic, social, cultural and psychological factors related to consumer behaviours, the evolution and change in behaviours and relationships, and the ways in which consumers respond to stimuli employed in the marketing of products, services and ideas.

Prerequisite(s): (1 of COST*1000, HAF*A*1000 , HTM*1000), (1 of PSYC*1100, PSYC*1200, SOC*1100)

Restriction(s): This is a Priority Access Course and some restrictions may apply during some time periods. Please contact the department for more information.

COST*2810 Social Aspects of Housing F (3-0) [0.50]

An overview of the impact of the residential environment upon lifestyles at various stages in the life cycle. Topics include the effect of neighbourhood and dwelling design upon children, seniors and the economically and physically handicapped. Consideration will be given to the development of behaviorally based design guidelines.

Prerequisite(s): 5.00 credits

COST*2820 Housing Finance W (3-0) [0.50]

Examines the financing of both residential and commercial real estate but with an emphasis on borrowing by individual homeowners. A mathematical approach is used to examine the impact of various lender and borrower decisions about loan terms (amortization periods, pre-payment options, etc.). The evolution of the Canadian housing finance system is contrasted with that in the United States. Various mortgage product innovations for seniors and other segments of the borrowing public are investigated.

Prerequisite(s): 5.00 credits

COST*3010 Quality Management W (3-0) [0.50]

Lectures will include general concepts and expectations of quality assurance from consumer, government, managerial and technological points of view and discuss the relationship of national and international groups concerned with quality assurance. Seminars apply concepts to selected products and services.

Prerequisite(s): 10.00 credits including 0.50 credits in statistics

Restriction(s): This is a Priority Access Course and some restrictions may apply during some time periods. Please contact the department for more information.

COST*3020 Services & Retail Marketing F,W (3-0) [0.50]

An examination of the consumer services and retail marketing environment. Topics include services and retail management theories, understanding services and retail change, consumer loyalty and trust, the impact of globalization and e-business, the intangible and tangible nature of services and retail marketing.

Prerequisite(s): 10.00 credits including 1 of AGE*C*4370, COST*1000, HAF*A*3080, HTM*3080

Restriction(s): This is a Priority Access Course and some restrictions may apply during some time periods. Please contact the department for more information.

COST*3030 Research Methods F,W (2-2) [0.50]

Examines the concepts, principles and practices for consumer, market and product development research processes. Topics include research problem definition, research objectives, research design, measurement, sampling methods, execution and research management, analysis and interpretation, and report writing.

Prerequisite(s): STAT*2060 or STAT*2090

Restriction(s): Registration in the B.Comm. Marketing Management Major, regular or co-op, Housing and Real Estate Management Major, regular and co-op, or the B.A. Marketing Management Minor.

COST*3040 Business and Consumer Law F,W (3-0) [0.50]

Course introduces students to statutory and common law concerning business and consumer transactions. An overview of the laws of contracts and torts forms the basis of business and producer/consumer relationships. Discussion topics include sale of goods and consumer protection legislation; debtor-creditor relations; competition law; intellectual property rights and manufacturers' product liability.

Prerequisite(s): 5.00 credits

Restriction(s): This is a Priority Access Course and some restrictions may apply during some time periods. Please contact the department for more information.

COST*3100 Economic Behaviour of Households W (3-0) [0.50]

A micro analysis of the patterns of resource use pursued by the household as conditions inside and outside the household change. Students are expected to possess or develop facility with the calculus of multivariable functions, constrained optimization, and multiple regression analysis.

Prerequisite(s): ECON*2310

COST*3600 Consumer Information Processes F,W (3-0) [0.50]

Course provides an in-depth treatment of information processing research and theories as they relate to consumer judgement and choice. Components of theory addressed include: attention and perception, motivation, processing capacity, encoding and memory storage, retrieval and decision processes. Applications to marketplace policy and strategy are discussed.

Prerequisite(s): COST*2600, COST*3030

COST*3610 Consumer Economics F (3-0) [0.50]

The course examines applications of macro and microeconomic theory to the consumption process. Students are expected to possess or develop facility with calculus and multiple regression analysis.

Prerequisite(s): ECON*2310, ECON*2410, STAT*2060
COST*3620 Advertising Management F,W (3-0) [0.50]
Concepts of communication and management as practiced by public and private sector organizations. Communication management principles are applied to the design and evaluation of communication programs.
Prerequisite(s): 10.00 credits including COST*1000 and COST*2600
Restriction(s): Registration in the B.Comm. Program. This is a Priority Access Course and some restrictions may apply during some time periods. Please contact the department for more information.

COST*3870 Topics in Housing U (3-0) [0.50]
Lecture-discussion or seminar on a selected topic or area of specialization related to housing to be conducted by faculty with special interests or expertise in the area. Students should confirm with the department prior to course selection what topic(s), if any, will be offered during specific semesters.
Prerequisite(s): Will be indicated by the department when the course is offered.
Restriction(s): Instructor consent required.

COST*3880 Topics in Housing U (3-0) [0.50]
Lecture-discussion or seminar on a selected topic or area of specialization related to housing to be conducted by faculty with special interests or expertise in the area. Students should confirm with the department prior to course selection what topic(s), if any, will be offered during specific semesters.
Prerequisite(s): Will be indicated by the department when the course is offered.
Restriction(s): Instructor consent required.

COST*3890 Property Management W (3-0) [0.50]
Financial theory is used to examine the diversification benefits of including real estate with financial assets in an investment portfolio. Diversification strategies within a real estate portfolio are also covered. The marketing and leasing of real estate space culminates in a leasing negotiation exercise between pairs of students. Differing property management issues faced by managers of residential, office, retail, industrial and mixed use properties are covered.
Prerequisite(s): COST*1800, COST*2820

COST*4020 Research in Consumer Studies U (3-0) [0.50]
An independent investigation of a pertinent topic in consumer studies. Registration requires departmental approval.
Prerequisite(s): COST*3030

COST*4040 Management in Product Development F (3-0) [0.50]
Major course components include: new product strategy formulation, the role of technical and market research, the analysis of opportunities, management of development processes, product launches, government and regulatory controls.
Prerequisite(s): Registration in the B.Comm. program (Marketing Management major) and 12.50 credits including COST*2600.

COST*4050 Consumer, Business and Government Relations F,W (3-0) [0.50]
Examination of changing economic, political, financial, and social power as determinants of relationships among and the roles played by consumers, businesses, and governments in the evolution of capitalistic democracies; the impact of power and the absence of power on employment, real incomes, income distribution, consumer attitudes, education systems, and the capacity of governments to govern.
Prerequisite(s): 12.50 credits including COST*2600, ECON*1050, ECON*1100.

COST*4370 Marketing Strategy F,W (3-0) [0.50]
This course focuses on the decision-making role of the marketing manager who is responsible for formulating the strategic marketing plan. The theory of selecting market target(s) for the firm's product and/or services and the development of the marketing mix (product, price, promotion, distribution) with the aid of market research and computerized information systems is covered.
Prerequisite(s): 10.00 credits
Equate(s): AGEC*4370
Restriction(s): Registration in the B.Comm. program (Marketing Management major).

COST*4600 International Marketing F,W (3-0) [0.50]
The study of marketing in a global context with specific emphasis on the strategic implications of marketing in different culture contexts. Included are the global marketing environment and the competitive challenges and opportunities confronting today's international marketers, the cultural environment of global marketing, the assessment of global market opportunities and the development of global marketing strategies.
Prerequisite(s): COST*1000, COST*2600, COST*3030
Restriction(s): Registration in the B.Comm program (Marketing Management major).

COST*4810 Housing Services Systems W (3-0) [0.50]
This course deals with the development, redevelopment and renewal of housing services within the context of organization decision-making systems. Students will design a program and implementation strategy to address a housing issue. The interrelations among the social aspects of housing, public policy, construction industry capabilities and financing mechanisms are considered. Both public and private delivery systems will be examined.
Prerequisite(s): COST*4850, COST*4860

COST*4820 Real Estate Appraisal F (3-0) [0.50]
This course deals with the basic principles involved in valuing real estate. The market comparison, cost and income approaches of appraisal are covered. The major emphasis in the course is on using discounted cash flow projections to value income-producing real estate. The term project involves the use of a spreadsheet program to estimate property value for a property chosen by the student. While valuation of single family homes is covered, the main emphasis is on investment real estate.
Prerequisite(s): (CIS*1000 or COST*2020), (COST*2820 or ECON*3560)

COST*4840 Housing and Real Estate Law F (3-0) [0.50]
Lays out the legal principles which guide the expanding and changing body of law dealing with housing and real estate development and forms of occupancy; statutory and regulatory matters are explored.
Prerequisite(s): 10.00 credits including COST*1800, COST*2820

COST*4850 Housing Policies F (3-0) [0.50]
Examines both substantive and jurisdictional policy and program development at the federal, provincial and local levels. The policy making process will be reviewed as well as policy and program evaluation techniques. The emphasis is on Canada although comparisons with other countries will be discussed.
Prerequisite(s): 10.00 credits including COST*1800, COST*2820

COST*4860 Housing Industry Structure and Process W (3-0) [0.50]
The development and construction sectors of the housing industry will be examined from both the structural and process perspectives in order to develop an understanding of how the industry adapts and how organizations operate. The course will focus on Canadian residential housing industry organizations and related agencies.
Prerequisite(s): 10.00 credits including COST*1800, COST*2820

COST*4910 Topics in Consumer Studies U (3-0) [0.50]
Lecture-discussion or seminar on a selected topic in consumer studies to be conducted by faculty with expertise in the area. Students should check with the department to determine what topic, if any, will be offered during a specific semester.
Prerequisite(s): Will be indicated by the department when the course is offered.
Restriction(s): Instructor consent required.

COST*4920 Topics in Consumer Studies U (3-0) [0.50]
Lecture-discussion or seminar on a selected topic or area of specialization related to housing to be conducted by faculty with special interests or expertise in the area. Students should confirm with the department prior to course selection what topic(s), if any, will be offered during specific semesters.
Prerequisite(s): Will be indicated by the department when the course is offered.
Restriction(s): Instructor consent required.

COST*4950 Consumer Studies Practicum U (1-3) [0.50]
The practicum provides supervised experience in applying the concepts and principles of consumer studies to contemporary issues in areas such as consumer finance, consumer policy, housing, product standards and quality assurance.
Prerequisite(s): 15.00 credits
Restriction(s): Instructor and Department Chair consent required.
Mathematics

Department of Mathematics and Statistics.

Suggested initial course sequence:

1. For students with 4U or OAC Calculus and expecting to pursue further studies in mathematics or the physical sciences: MATH*1200, MATH*1210.
2. For students interested in applications to the biological sciences: MATH*1080, MATH*2080.
3. For students not expecting to pursue further studies in mathematics: MATH*1000, one STAT*XXXX course

MATH*1000 Introductory Calculus F,W (3-1) [0.50]
A brief introduction to analytical geometry. The differential and integral calculus for algebraic, logarithmic, exponential and trigonometric functions, with applications. (Also offered through distance education format.)
Prerequisite(s): 1 4U credit in mathematics or 1 OAC credit in mathematics
Restriction(s): IPS*1110, MATH*1080, MATH*1200. Not available to students registered in the B.Sc. and B.Sc. (Agr.) programs.

MATH*1050 Introduction to Mathematical Modeling W (3-1) [0.50]
The application of non-calculus techniques in modeling "real world" problems in business, psychology, sociology, political science and ecology. The mathematical topics introduced include graphs and directed graphs, linear programming, matrices, probability, games and decisions, and difference equations. Mathematics majors may not take this course for credit.
Equate(s): CIS*1900
Restriction(s): Not available to students registered in B.Comp programs or CIS majors and minors.

MATH*1080 Elements of Calculus I F,W (3-1) [0.50]
The elements of the calculus of one variable with illustration and emphasis on its application in the biological sciences. The elementary functions, sequences and series, difference equations, differential and integral calculus.
Prerequisite(s): 4U Advanced Functions and Calculus or OAC Calculus
Restriction(s): MATH*1000, MATH*1200, IPS*1110

MATH*1200 Calculus I F (3-1) [0.50]
This is a theoretical course intended primarily for students who expect to pursue further studies in mathematics and its applications. Topics include inequalities and absolute value; compound angle formulas for trigonometric functions; limits and continuity using rigorous definitions; the derivative and derivative formulas (including derivatives of trigonometric, exponential and logarithmic functions); Fermat's theorem; Rolle's theorem; the mean-value theorem; applications of the derivative; Riemann sums; the definite integral; the fundamental theorem of calculus; applications of the definite integral; the mean value theorem for integrals.
Prerequisite(s): 4U Advanced Functions and Calculus or OAC Calculus
Restriction(s): MATH*1000, MATH*1080, IPS*1110

MATH*1210 Calculus II S,W (3-1) [0.50]
Topics include inverse functions, inverse trigonometric functions, hyperbolic and inverse hyperbolic functions, indeterminate forms and l'Hopital's rule; techniques of integration; parametric equations; polar coordinates; introduction to MacLaurin and Taylor series; functions of several variables; and partial derivatives.
Prerequisite(s): 1 of IPS*1110, MATH*1000, MATH*1080, MATH*1200, instructor consent
Restriction(s): MATH*2080

MATH*2000 Set Theory F (3-1) [0.50]
The algebra of sets. Equivalence relations, mappings and inverse mappings. Review of the real number system. Countable and uncountable sets. Partially and totally ordered sets. Complex numbers and their arithmetic. Geometry and topology of the line and the plane. Emphasis is placed on developing skills in constructing mathematical proofs.
Prerequisite(s): 0.50 credits in calculus at the university level

MATH*2080 Elements of Calculus II F,W (3-1) [0.50]
Techniques of integration, introduction to differential equations and the elements of multivariate calculus. Illustrations and emphasis will be on biological applications. An introduction to vectors, multivariable and vector functions, difference equations, partial differentiation and multiple integration.
Prerequisite(s): 1 of IPS*1110, MATH*1000, MATH*1080, MATH*1200
Restriction(s): IPS*1210, MATH*1010, MATH*1210

MATH*2130 Numerical Methods S,W (3-2) [0.50]
This course provides an overview of and practical experience in utilizing algorithms for solving numerical problems arising in applied sciences. Topics covered will include solution of a single nonlinear equation, interpolation, numerical differentiation and integration, solution of differential equations and systems of linear algebraic equations. Students will utilize computers in solving problem assignments.
Prerequisite(s): 1 of IPS*1120, MATH*1010, MATH*1210, MATH*2080

MATH*2135 Applied Matrix Algebra F,W (3-1) [0.50]
Prerequisite(s): 1 of a 4U mathematics credit, an OAC mathematics credit, first year university mathematics credit
Restriction(s): MATH*2160

MATH*2160 Linear Algebra I F (3-0) [0.50]
Prerequisite(s): (IPS*1110 or MATH*1200), (1 of MATH*2150, 4U Geometry and Discrete Mathematics, OAC Algebra and Geometry)

MATH*2170 Differential Equations I W,S (3-1) [0.50]
First order equations, linear equations of second and higher orders, phase plane, difference equations, introduction to power series methods, Laplace transforms, formulation, solution and interpretation of differential equations of interest in science.
Prerequisite(s): 1 of IPS*1120, MATH*1010, MATH*1210, MATH*2080
Restriction(s): MATH*2270

MATH*2200 Advanced Calculus I F (3-0) [0.50]
Infinite sequences and series of numbers, power series, tests for convergence; Taylor's theorem and Taylor series for functions of one variable; planes and quadratic surfaces; limits, continuity, and differentiability; partial differentiation, directional derivatives and gradients; tangent planes, linear approximation, and Taylor's theorem for functions of two variables; critical points, extreme value problems; implicit function theorem; Jacobians; double integrals, iterated integrals and change of variables.
Prerequisite(s): 1 of IPS*1120, MATH*1210, MATH*2080

MATH*2210 Advanced Calculus II W (3-0) [0.50]
Spherical and cylindrical polar coordinate transformations; multiple integrals; line integrals; vector and scalar fields including the gradient, divergence, curl and directional derivative, and their physical interpretation; theorems of Green and Stokes; uniform convergence.
Prerequisite(s): MATH*2200 (MATH*1200 is strongly recommended)

MATH*2270 Applied Differential Equations F (3-1) [0.50]
Solution of differential equations which arise from problems in engineering. Linear equations of first and higher order; systems of linear equations; Laplace transforms; series solutions of second-order equations; introduction to partial differential equations.
Prerequisite(s): ENGG*1500, MATH*1210
Restriction(s): MATH*2170

MATH*3100 Differential Equations II F (3-1) [0.50]
First order linear systems and their general solution by matrix methods. Introduction to nonlinear systems, stability, limit cycles and chaos using numerical examples. Solution in power series of second order equations including Bessel's equation. Introduction to partial differential equations and applications.
Prerequisite(s): (MATH*2130 or PHYS*2440), (MATH*2150 or MATH*2160), MATH*2170

MATH*3130 Algebraic Structures F (3-0) [0.50]
Symmetric groups; introduction to group theory; groups, subgroups, normal subgroups, factor groups, fundamental homomorphism theorem. Introduction to ring theory; rings, subrings, ideals, quotient rings, polynomial rings, fundamental ring homomorphism theorem.
Prerequisite(s): MATH*2000, (MATH*2150 or MATH*2160)

MATH*3160 Linear Algebra II W (3-0) [0.50]
Prerequisite(s): MATH*2160
MATH*3170 Partial Differential Equations and Special Functions W (3-0) [0.50]
Wave equation, heat equation, Laplace equation, linearity and separation of variables; solution by Fourier series; Bessel and Legendre functions; Fourier transforms; introduction to the method of characteristics.
Prerequisite(s): MATH*2000, MATH*3100

MATH*3200 Real Analysis F (3-0) [0.50]
Prerequisite(s): MATH*2000, MATH*2160, MATH*2210

MATH*3240 Operations Research F (3-0) [0.50]
Prerequisite(s): (MATH*2150 or MATH*2160), 0.50 credits in statistics
Co-requisite(s): MATH*2200

MATH*3260 Complex Analysis W (3-0) [0.50]
Prerequisite(s): MATH*2000, MATH*2200

MATH*3510 Biomathematics W (3-0) [0.50]
Development, analysis, and interpretation of mathematical models of biological phenomena. Emphasis will be on deterministic discrete and continuous models.
Prerequisite(s): (MATH*2150 or MATH*2160), (MATH*2170 or MATH*2270), at least 0.50 credits in statistics at the 2000 level or above

MATH*4000 Advanced Differential Equations F (3-0) [0.50]
Prerequisite(s): MATH*3100, (MATH*3160 or MATH*3200)

MATH*4050 Topics in Mathematics I W (3-0) [0.50]
Discussion of selected topics at an advanced level. Intended mainly for mathematics students in the 6th to 8th semester. Content will vary from year to year. Sample topics: probability theory, Fourier analysis, mathematical logic, operator algebras, number theory, combinatorics, philosophy of mathematics, fractal geometry, chaos, stochastic differential equations. (Offered in odd-numbered years.)
Prerequisite(s): MATH*2160, MATH*3200

MATH*4060 Topics in Mathematics II W (3-0) [0.50]
Discussion of selected topics at an advanced level as in MATH*4050, but with different choice of topic. (Offered in even-numbered years.)
Prerequisite(s): MATH*2160, MATH*3200

MATH*4070 Case Studies in Modeling F (2-2) [0.50]
Study of selected topics in applied mathematics at an advanced level, intended mainly for mathematical science students in the 7th or 8th semester. Sample topics are optimal control theory and nonlinear programming. The course will include case studies of real-world problems arising from various areas and the contribution of mathematical models to their solution. Part of the course requirement will involve the completion of a mathematical modeling project in conjunction with the departmental Mathematics and Statistics Clinic. For further information concerning the Clinic, consult the department. (Offered in even-numbered years.)
Prerequisite(s): 3.50 credits in mathematical science including MATH*2130

MATH*4140 Applied Algebra W (3-0) [0.50]
Finite symmetric groups, dihedral and cyclic groups with applications to the group of symmetries of a geometric figure in the plane. Polya-Burnside method of enumeration with applications. Galois fields with applications to combinatorial design constructions. Error correcting binary codes. (Offered in even-numbered years.)
Prerequisite(s): MATH*3130

MATH*4200 Advanced Analysis F (3-0) [0.50]
Prerequisite(s): MATH*3160, MATH*3200, MATH*3260

MATH*4220 Applied Functional Analysis W (3-0) [0.50]
Hilbert and Banach spaces; applications to Fourier series and numerical analysis. Hahn-Banach theorem; weak topologies. Generalized functions; application to differential equations. Completeness; uniform boundedness principle. Lebesgue measure and integration; applications to probability and dynamics. Spectral theory. (Offered in even-numbered years.)
Prerequisite(s): MATH*2160, MATH*3200

MATH*4240 Advanced Topics in Modeling W (3-0) [0.50]
A study of selected advanced topics in mathematical modeling, to include model formulation, techniques of model analysis and interpretation of results. Topics usually include transportation and assignment problems, minimum cost flow problems and network simplex methods, Markov chains, queuing theory. Student participation in researching a project and in the preparation of a report.
Prerequisite(s): MATH*3240

MATH*4270 Advanced Partial Differential Equations F (3-0) [0.50]
Prerequisite(s): MATH*3170, MATH*3200, MATH*3260

MATH*4290 Geometry and Topology W (3-0) [0.50]
Classical geometry of the plane and 3-space. Non-Euclidean geometries. Elementary topology of graphs and surfaces. Topics to be selected from: algebraic geometry; analysis on manifolds; Riemannian geometry; tensor analysis; homotopy and homology groups. (Offered in odd-numbered years.)
Prerequisite(s): MATH*2160, MATH*3130, MATH*3200

MATH*4430 Advanced Numerical Methods F (3-0) [0.50]
Numerical solution of linear systems, differential equations; the algebraic eigenvalue problem, interpolation and approximation of functions, numerical quadrature.
Prerequisite(s): MATH*2130, (MATH*2150 or MATH*2160), MATH*2200, (MATH*2170 or MATH*2270)

MATH*4510 Environmental Transport and Dynamics F (3-0) [0.50]
Mathematical modeling of environmental transport systems. Linear and nonlinear compartmental models. Convective and diffusive transport. Specific models selected from hydrology; ground-water and aquifer transport, dispersion of marine pollution, effluents in river systems; atmospheric pollen dispersion, plume models, dry matter suspension and deposition; Global circulation: tritium distribution. (Offered in odd-numbered years.)
Prerequisite(s): MATH*3510 or MATH*3100, 0.50 credits in statistics
## Meteorology

### Department of Land Resource Science.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MET*1000</td>
<td>The Atmospheric Environment</td>
<td>0.50</td>
<td><strong>S (3-0)</strong> The course covers topics on understanding weather maps and forecasts, weather indices for plants and people, local-scale microclimates, diffusion of pollutants and their impact on air quality and climate change. (Offered through distance education format only.)</td>
</tr>
<tr>
<td></td>
<td>Restrictions: Not available to students with previous MET credit. Not available to students registered in B.Sc. or B.Sc.(Env.) programs.</td>
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</tr>
<tr>
<td>MET*2020</td>
<td>Agrometeorology</td>
<td>0.50</td>
<td><strong>W (3-0)</strong> Weather and climate effects on agricultural production. Relation of water balance and other climate factors to growth and yield of crops, introduction to crop-weather modeling, climate hazards and their control, weather aspects of pest and disease management. Data: BIOL<em>1020 or BIOL</em>1030</td>
</tr>
<tr>
<td>MET*2030</td>
<td>Meteorology and Climatology</td>
<td>0.50</td>
<td><strong>F (3-2)</strong> Solar and terrestrial radiation; pressure systems and winds; atmospheric stability and vertical motions; air masses and fronts; clouds and precipitation; selected topics in applied meteorology including air pollution. The laboratory emphasizes the analysis and use of atmospheric data for solving environmental problems. Data: 1 of MET<em>2020, PHYS</em>1000, PHYS<em>1070, PHYS</em>1080, PHYS<em>1110, PHYS</em>1130</td>
</tr>
<tr>
<td>MET*3050</td>
<td>Microclimatology</td>
<td>0.50</td>
<td><strong>W (3-0)</strong> Natural and intentionally-modified microclimates near the earth's surface; energy budgets; transport of mass and heat. Familiarization with some instruments for microclimatic measurements. Data: 1 of MET<em>2020, MET</em>2030, GEOG*2110</td>
</tr>
<tr>
<td>MET*4100</td>
<td>Physical Meteorology</td>
<td>0.50</td>
<td><strong>W (3-0)</strong> This course introduces the principles of physical meteorology, including structure and composition of the atmosphere, radiative transfer, atmospheric energetics and cloud formation. All topics will be discussed in terms of global climate change. (Offered in odd-numbered years.) (First offering Winter 2007.) Data: MET*3050</td>
</tr>
<tr>
<td>MET*4210</td>
<td>Atmospheric Experimentation and Instrumentation</td>
<td>0.50</td>
<td><strong>W (3-0)</strong> This course covers the design and implementation of field experiments for atmospheric and environmental studies. Principles of operation and practical consideration of various meteorological and soil sensors will be discussed along with overall design and implementation procedures for environmental monitoring. Students will prepare a proposal detailing an experimental design of their own. Data: MET<em>2030 or MET</em>3050, MET*4230</td>
</tr>
<tr>
<td>MET*4300</td>
<td>Atmospheric Transport and Chemistry</td>
<td>0.50</td>
<td><strong>W (3-0)</strong> Behaviour of synoptic scale weather systems and the transport of substances in the atmosphere. Chemical and photochemical transformations during transport; scavenging and removal from the atmosphere. (Offered in even-numbered years.) Data: (1 of CHEM<em>1310, CHEM</em>3360, ENGG<em>3360, TOX</em>3360, ENVS<em>3360), MET</em>2030, MET*4310</td>
</tr>
<tr>
<td>MET*4310</td>
<td>Atmospheric Transport and Chemistry</td>
<td>0.75</td>
<td><strong>W (3-0)</strong> Identical to MET<em>4300 with the addition of a laboratory component which emphasizes aspects of Dynamic and Synoptic Meteorology including weather map analysis and forecasting, atmospheric dynamics, geostrophic and thermal winds, vorticity, and mechanisms of pressure change. Lectures taken with MET</em>4300. (Offered in even-numbered years.) Data: (1 of CHEM<em>1310, CHEM</em>3360, ENGG<em>3660, TOX</em>3360, ENVS<em>3360), MET</em>2030, MET*4300</td>
</tr>
</tbody>
</table>
Microbiology

Department of Environmental Biology.
Department of Molecular and Cellular Biology.
Department of Pathobiology.

**MICR*1020 Fundamentals of Applied Microbiology** F (2-3) [0.50]

This course is designed for students in engineering and applied human nutrition. The importance of microbes from an environmental point of view, including water systems and soils as well as their importance in disease, nutrition, food and food processing will be emphasized. The theoretical basis of microbial analysis and control measures will be included. The laboratory component of the course will deal with microbial growth and practical aspects of microbial analysis of environmental and food samples including identification and enumeration of specific microorganisms and approaches for their control. B.Sc. students cannot take this course for credit. Department of Molecular and Cellular Biology.

*Restriction(s):* BIOL*1030, BIOL*1040. Registration in B.A.Sc. Program (Applied Human Nutrition major) or B.Sc. (Env.) program.

**MICR*2020 Microbial Interactions and Associations** F,W (3-0) [0.50]

The interactions and associations of microorganisms with each other and with components of both the biotic and abiotic worlds have an enormous impact on daily life and their influence is felt on a global basis. The diversity of microorganisms including viruses, bacteria, fungi and protozoa will be presented in the context of such interactions and impact. The interactions of microbes with host organisms in symbioses and pathogenesis, and their survival strategies in extreme environments will be examined. The host-pathogen interactions in disease will be emphasized, but balanced with consideration of the beneficial aspects of microorganisms such as their role in biogeochemical cycles and their application in biotechnology. Assignments will evaluate contemporary microbiological issues in the context of the corresponding scientific literature. Department of Molecular and Cellular Biology.

*Prerequisite(s):* BIOL*1040 or equivalent

**MICR*2030 Microbial Growth** S,F,W (2-3) [0.50]

The environmental factors and physiological processes of microbial growth. The transport of nutrients, the metabolic availability of energy, metabolic patterns, and versatility in diverse microorganisms. Microscopy, isolation and enumeration, measurement of growth. Department of Molecular and Cellular Biology.

*Prerequisite(s):* BIOL*1040

**MICR*3110 Techniques in Microbiology** W (3-3) [0.50]

An "open laboratory" course. Techniques used in microbiology laboratories will be studied, including: kinetics of microbial growth, cell harvesting and disruption, separation and biochemical analysis of cell constituents. Department of Molecular and Cellular Biology.

*Prerequisite(s):* BIOL*2580, MICR*2030, MBG*2020

**MICR*3120 Systematic Bacteriology** F (2-3) [0.50]

Classification, nomenclature, and identification of bacteria. Methods and approaches for the isolation and identification of bacteria are considered in the laboratory. The characteristics of some groups of common bacteria and the contributions of molecular systematics to bacterial classification are discussed. Department of Molecular and Cellular Biology.

*Prerequisite(s):* MICR*2030

**MICR*3220 Plant Microbiology** F (3-0) [0.50]

Interaction between plants and microorganisms. Topics include molecular plant-microbe interactions, plant defenses, bacterial ice nucleation, interaction among plant microbes, root nodulation, mycorrhizae, wood decay, and decomposition of plant litter. Department of Environmental Biology.

*Prerequisite(s):* BIOL*1040

**MICR*3230 Immunology I** F (3-0) [0.50]

An introduction to the immune response of the vertebrate host, the cells and tissues of the lymphoid system, humoral and cell-mediated immunity, the concept of immunity to diseases and current techniques in immunology. Department of Molecular and Cellular Biology and Department of Pathobiology.

*Prerequisite(s):* BIOL*1040, BIOL*2580

**MICR*3260 Microbial Adaptation and Development** W (3-1) [0.50]

Adaptation, development, and modulation of microbial physiology in response to environmental stimuli (tutorials included). Department of Molecular and Cellular Biology.

*Prerequisite(s):* BIOL*3560, (MBG*3070 or MBG*3080)

**MICR*4010 Pathogenic Bacteriology** W (3-0) [0.50]

Interactions between bacterial pathogens and host animals, including immune and inflammatory responses of the host's defense mechanisms. The structural and physiological characteristics of a number of important bacterial causes of human and animal diseases are considered. Department of Molecular and Cellular Biology.

*Prerequisite(s):* MICR*3120, MICR*3230, (MBG*3070 or MBG*3080)

**MICR*4120 Virology** F (3-3) [0.50]


*Prerequisite(s):* MBG*2020, BIOL*2210

**MICR*4140 Soil Microbiology and Biotechnology** F (3-0) [0.50]

The biology of soil microorganisms with an emphasis on their integrated ecology, physiology, genetics and biotechnological uses in the soil environment. The response of soil microorganisms to soil physical-chemical factors and aspects of nutrient cycling in soil. Current topics also include soil as an environment for microorganisms, microbial evolution, soil microbial biodiversity, gene flow and microbial nucleic acids in soil, microbial survival and activity in soil, metabolism of soil pollutants and metal-microbe interactions. The use of molecular-based methods to study microorganisms in soil. Regulations and guidelines on the biotechnological applications of microorganisms in the soil environment will be discussed. Department of Environmental Biology.

*Prerequisite(s):* BIOL*1040, BIOL*2580

**MICR*4180 Microbial Processes in Environmental Management** F (3-0) [0.50]

The metabolic basis of microbial processes fundamentally important in the management of agricultural, industrial or municipal wastes are examined. Topics covered include relevant considerations in using microorganisms for pollution control, factors that affect efficient microbial degradation in the environment, and major microbial enzyme systems/pathways for biodegradation of persistent pollutants. Emphasis will be placed on the biochemistry, physiology, genetics and biotechnological applications of pollutant-degrading microorganisms. Department of Environmental Biology.

*Prerequisite(s):* BIOL*1040, BIOL*2580

**MICR*4230 Immunology II** W (3-3) [0.50]

Concepts and current knowledge of the diversity of immune response, experimental systems used in studying immunology, antigen-antibody reaction methods, monoclonal antibodies, antibody engineering, hypersensitivity reactions, autoimmunity, and adhesion molecules and homing of cells of the immune system. Department of Molecular and Cellular Biology.

*Prerequisite(s):* MICR*3230

**MICR*4240 Topics in Microbiology** S,F,W (1-3) [0.50]

Independent study of a selected topic in microbiology, involving a review and critical appraisal of the current literature. Written and oral presentations are required. Department of Molecular and Cellular Biology.

*Restriction(s):* Students are required to discuss a topic with a potential supervisor before registering for the course. Open to students in semesters 6, 7 and 8. Instructor consent required.

**MICR*4260 Microbial Technology** W (3-0) [0.50]

Study of how the metabolism of microorganisms can be manipulated to produce goods and services. The means by which the yields of secondary metabolites, enzymes, and genetically selected products can be maximized are considered and examples of specific processes are examined. Department of Molecular and Cellular Biology and Department of Environmental Biology.

*Prerequisite(s):* MBG*2020, MICR*2030

**MICR*4270 Microbial Design F (3-0) [0.50]

Diversity in structure and function of microorganisms. Adaptation to meet functional demands of the environment. Differences between the Bacteria, Archaea, and Eukarya are emphasized, particularly in respect to action of antimicrobial agents. Department of Molecular and Cellular Biology.

*Prerequisite(s):* BIOL*3560, (MBG*3070 or MBG*3080)

*Restriction(s):* MICR*3250
<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>MICR*4290</td>
<td>Microbial Ecology W (2-3) [0.50]</td>
<td>Microorganisms and transformations involved in the major geochemical cycles in marine, fresh water and terrestrial ecosystems. Factors which affect these activities are considered including nutrition, temperature, pressure, salinity, pH, and oxidation/reduction potential. Common techniques used in ecological research such as measurement of ATP and radioisotope measurement of mineralization are studied in the laboratory section. Department of Molecular and Cellular Biology.</td>
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<td>Prerequisite(s): MICR*2030</td>
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<tr>
<td>MICR*4310</td>
<td>Research Project I S,F,W (0-12) [1.00]</td>
<td>Independent research projects involving experimental or practical work, conducted under the supervision of a faculty member. Results are presented in written and oral form. Department of Molecular and Cellular Biology.</td>
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<td>Restriction(s): Students must have a research advisor and permission from the course coordinator before registering. Instructor consent required.</td>
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<tr>
<td>MICR*4320</td>
<td>Research Project II S,F,W (0-12) [1.00]</td>
<td>Independent research projects involving experimental or practical work, conducted under the supervision of a faculty member. Results are presented in written and oral form. Department of Molecular and Cellular Biology.</td>
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<td>Prerequisite(s): MICR*4310</td>
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<td>Restriction(s): Students must have a research advisor and permission from the course coordinator before registering. Instructor consent required.</td>
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<tr>
<td>MICR*4430</td>
<td>Medical Virology W (3-0) [0.50]</td>
<td>A study of the interactions of animal viruses and their hosts and of important diseases of humans caused by viruses in different taxonomic groups. The emphasis is on aspects of pathogenesis, epidemiology, immune responses and control. Recent advances in the application of molecular biology to the development of diagnostic tests and vaccines will be included. Department of Pathobiology.</td>
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<td>Prerequisite(s): MICR*4120</td>
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### Molecular Biology and Genetics

**Department of Animal and Poultry Science.**
**Department of Molecular and Cellular Biology.**
**Department of Plant Agriculture.**
**Department of Integrative Biology.**

#### MBG*1000 Genetics and Society F,W (3-1) [0.50]
Basic principles of genetics at work in human society. The roles of genes and inheritance in the biology of humans and the organisms with which we interact. Introduction to some of the social and ethical consequences of genetic knowledge and practice. This is a science course designed primarily for students in the Arts or Social and Applied Human Sciences. Department of Molecular and Cellular Biology.

**Restriction(s):** Not available to students registered in B.Sc. programs.

#### MBG*2020 Introductory Genetics S,F,W (3-2) [0.50]
Fundamental aspects of genetics including the chromosomal basis of inheritance, cytotegenetics, genes in populations and quantitative traits. Additional topics include extranuclear inheritance, human genetics, bacterial and viral genetics. The molecular nature of the gene and general mechanisms of gene expression will be introduced but not covered in detail as these topics are expanded in MBG*2020. Intended as the foundation course in genetics for science students and is a prerequisite for all upper level courses in molecular biology and genetics including MBG*2020. Department of Molecular and Cellular Biology.

**Prerequisite(s):** 4 credits including BIOL*1040

#### MBG*2020 Introductory Molecular Biology F,W (3-2) [0.50]
Introduction to the processes by which genetic information is stored, replicated, and expressed in living organisms and the experimental techniques used to study these processes. DNA, gene-protein relationships, and the genetic code. Replication, chromosomes, transcription, and translation. Techniques employed in molecular cloning and applications. Department of Molecular and Cellular Biology.

**Prerequisite(s):** BIOC*2580, MBG*2000

#### MBG*3000 Population Genetics F (3-2) [0.50]
This course is designed to explore the concepts of random mating, inbreeding, random drift, assortative mating and selection as they relate to natural populations. The dynamic genetic structure of populations and its relationship to the process of speciation is examined. The role and significance of molecular genetics as it relates to population genetics, evolution, systemsatics and phylogeny is also considered. Department of Zoology.

**Prerequisite(s):** MBG*2000

#### MBG*3050 Human Genetics W (3-3) [0.50]
A course designed to introduce the student to the study of biological inheritance in humans. The course includes discussion of the genetic basis of human individual differences, gene frequencies in human populations, human behavioral genetics, human cytogenetics, biochemical genetics and developmental genetics, medical genetics and other aspects of human heredity. Department of Molecular and Cellular Biology.

**Prerequisite(s):** MBG*2020

#### MBG*3060 Quantitative Genetics W (3-2) [0.50]
The nature of Mendelian inheritance when extended to quantitative traits that are jointly influenced by the environment and the simultaneous segregation of many genes. Prediction of response to natural and artificial selection in populations. Department of Animal and Poultry Science.

**Prerequisite(s):** MBG*2000, 0.50 credits in statistics

#### MBG*3070 Bacterial Genetics S,F (3-3) [0.50]
Genetics of prokaryotic microorganisms and their viruses. Some major topics covered are: regulation of gene expression, analysis of bacterial and phage genomes, plasmids, transposable elements, and mutation studies. This course is restricted to students in the B.Sc. Major in Microbiology or Molecular Biology and Genetics programs, unless approval by the course instructor is obtained. Department of Molecular and Cellular Biology.

**Prerequisite(s):** MBG*2020, MICR*2030

**Restriction(s):** MBG*3080

#### MBG*3080 Bacterial Genetics S,F (3-0) [0.50]
Lecture portion only of MBG*3070. Department of Molecular and Cellular Biology.

**Prerequisite(s):** MBG*2020, MICR*2020

**Restriction(s):** MBG*3070

#### MBG*3090 Applied Animal Breeding F (3-2) [0.50]
The basis of, and methods for, effective use of modern animal breeding tools for practical improvement of livestock species. An examination and comparison of the structure of genetic improvement programs across species. International aspects and challenges to animal breeding programs.

**Prerequisite(s):** MBG*2000, 0.50 credits in statistics

#### MBG*3100 Plant Genetics F (3-2) [0.50]
Reproduction in plants, genetic and cytogenetic structure of plants, nature of phenotypic variability in plants, patterns of response to selection in plant populations, measurement of continuous and discontinuous genetic variability in plant populations. Department of Plant Agriculture.

**Prerequisite(s):** (MBG*2000 or AGR*2451/2 for B.Sc.(Agr.) students only), STAT*2040

#### MBG*3200 Genetics: Our Uncertain Heritage F (3-0) [0.50]
An examination of the ethical, social, and political issues arising from genetic manipulation, reproductive intervention and biotechnology through the joint application of principles of modern genetics and moral philosophy. Topics include eugenics, cloning, surrogate parenting, abortion, gene therapy, DNA fingerprinting and genetic diagnosis. Related issues such as scientific freedom, access to genetic information and public policy are also considered. Department of Molecular and Cellular Biology.

**Prerequisite(s):** MBG*2000

#### MBG*3350 Laboratory Methods in Molecular Biology I F,W (0-8) [0.75]
Laboratory based instruction in the basic methodologies of Molecular Biology. Students will have the opportunity to develop technical skills and practical knowledge sufficient to perform basic procedures independently, and to diagnose and analyze experimental results obtained with these techniques. Department of Molecular and Cellular Biology.

**Prerequisite(s):** BIOC*2580, MBG*2020

**Restriction(s):** Registration in the B.Sc. Major in Molecular Biology and Genetics, Biochemistry, Biochemistry (Co-op), Biomedical Toxicology, Biomedical Toxicology (Co-op) or instructor consent.

#### MBG*3360 Laboratory Methods in Molecular Biology II W (0-8) [0.75]
Laboratory based instruction in the basic methodologies of Molecular Biology. Students will have the opportunity to develop technical skills and practical knowledge sufficient to perform advanced agendas independently, and to diagnose and analyze experimental results obtained with these techniques. Department of Molecular and Cellular Biology.

**Prerequisite(s):** MBG*3350

**Restriction(s):** Instructor consent required.

#### MBG*3600 Introduction to Genomics S,F (1.5-0) [0.25]
Genomics is the analysis of the structures and functions of entire genomes, whose nucleotide sequences are now known in part or in entirety for many different organisms. This computer-based course will provide an introduction to the methodology and applicability of this new discipline. Department of Molecular and Cellular Biology. (Offered through distance education format only.)

**Prerequisite(s):** MBG*2020

#### MBG*4030 Animal Breeding Methods F (3-2) [0.50]
Theoretical and scientific aspects of practical animal breeding programs which lead to genetic improvement of efficiency and profitability of animal production. Integrates quantitative genetics with concepts of statistics, economics, biology and biotechnology and expands into development of practical breeding plans. Department of Animal and Poultry Science.

**Prerequisite(s):** MBG*3060

#### MBG*4040 Genetics and Molecular Biology of Development F (3-2) [0.50]
An examination of the genetic mechanisms which specify organismic development. Molecular biology of determination and cell differentiation, homeotic genes, oncogenes, genetic control of morphogenesis and pattern formation. Application of embryo manipulation techniques in basic science and medicine. Department of Molecular and Cellular Biology. (Offered in odd-numbered years.)

**Prerequisite(s):** MBG*2020

**Restriction(s):** MBG*4070

#### MBG*4040 Genetics and Molecular Biology of Development F (3-2) [0.50]
Lecture portion only of MBG*4040. (Offered in odd-numbered years.)

**Prerequisite(s):** MBG*2020

**Restriction(s):** MBG*4040

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*Last Revision: October 18, 2005*
<table>
<thead>
<tr>
<th>Course Code</th>
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<th>Credits</th>
<th>Prerequisites/Restrictions</th>
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</thead>
<tbody>
<tr>
<td>MBG*4080</td>
<td>Molecular Genetics F (3-0) [0.50]</td>
<td>The chemical nature of genetic material, transcription and the control of gene expression. DNA cloning and the use of recombinant DNA molecules in modifying gene expression. Department of Molecular and Cellular Biology.</td>
<td>Prerequisite(s): MBG*2020</td>
</tr>
<tr>
<td>MBG*4160</td>
<td>Plant Breeding W (3-2) [0.50]</td>
<td>Application of genetic principles to plant improvement. Topics include breeding objectives, mating systems, selection, testing and germplasm maintenance of horticultural and crop plants. Department of Plant Agriculture.</td>
<td>Prerequisite(s): [MBG<em>2000 or (MBG</em>3100, AGR<em>2451/2 (for B.Sc.(Agr.) students only)], STAT</em>2040</td>
</tr>
<tr>
<td>MBG*4200</td>
<td>Transmission Genetics F (3-0) [0.50]</td>
<td>A critical review of genetic methodologies employed in higher eukaryotes and how formal genetic analysis can be integrated with molecular genetics in studying diverse biological research areas such as meiotic recombination, DNA repair, embryonic development, transposable elements and neurobiology. Department of Molecular and Cellular Biology. (Offered in even-numbered years.)</td>
<td>Prerequisite(s): MBG*2000</td>
</tr>
<tr>
<td>MBG*4240</td>
<td>Applied Molecular Genetics W (3-0) [0.50]</td>
<td>Molecular and cellular aspects of biotechnology. In vitro manipulations of animal and plant cells. Genetic engineering in eukaryotes and development of transgenic organisms. Methods of gene therapy and molecular biology of cancer and its treatment. Department of Molecular and Cellular Biology.</td>
<td>Prerequisite(s): MBG*2020</td>
</tr>
<tr>
<td>MBG*4270</td>
<td>DNA Replication, Recombination and Repair W (3-0) [0.50]</td>
<td>This course will examine the DNA transactions that determine the structure of the function of the genome, with an emphasis on natural and synthetic mutagens and their mode of action, replication and recombination of genetic material, recognition and repair of DNA damage, developmentally-regulated changes in gene structure, inherited and somatic genetic diseases arising from abnormal DNA metabolism, and DNA sequence changes and chromosome alterations in evolution. Department of Molecular and Cellular Biology. (Offered in odd-numbered years.)</td>
<td>Prerequisite(s): MBG*2020</td>
</tr>
<tr>
<td>MBG*4300</td>
<td>Plant Molecular Genetics W (3-0) [0.50]</td>
<td>Molecular genetics of plants. Topics include: plant genome diversity and synteny; Arabidopsis thaliana genome, hormonal, environmental and developmental regulation of gene expression; chloroplast and mitochondrial genomes; and gene expression and silencing in transgenics. The course will be delivered using a lecture and paper discussion format. Students will learn and use a variety of computer techniques to search and analyze plant genome databases.</td>
<td>Prerequisite(s): MBG*2020</td>
</tr>
<tr>
<td>MBG*4350</td>
<td>Structural Molecular Biology W (3-0) [0.50]</td>
<td>Architecture of protein and nucleoprotein complexes associated with gene expression, computational sequence analysis and structure prediction; gene and molecular evolution. Department of Molecular and Cellular Biology. (Offered in even-numbered years.)</td>
<td>Prerequisite(s): MBG*2020</td>
</tr>
<tr>
<td>MBG*4500</td>
<td>Research Project in Molecular Biology and Genetics I S,F,W (0-12) [1.00]</td>
<td>Independent theoretical and laboratory research on a topic in the discipline under the supervision of individual faculty. Students must make arrangements with both a faculty supervisor and the course coordinator prior to preregistration.</td>
<td>Prerequisite(s): MBG*3350&lt;br&gt;Restriction(s): Registration in semester 7 or 8 of the B.Sc. program, Molecular Biology and Genetics major. Instructor consent required.</td>
</tr>
<tr>
<td>MBG*4510</td>
<td>Research Project in Molecular Biology and Genetics II S,F,W (0-12) [1.00]</td>
<td>Independent theoretical and laboratory research on a topic in the discipline under the supervision of individual faculty. Students must make arrangements with both a faculty supervisor and the course coordinator prior to preregistration.</td>
<td>Prerequisite(s): MBG*4500&lt;br&gt;Restriction(s): Registration in semester 7 or 8 of the B.Sc. program, Molecular Biology and Genetics major. Instructor consent required.</td>
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<tr>
<td>MBG*4600</td>
<td>Topics in Molecular Biology and Genetics S,F,W (1-3) [0.50]</td>
<td>Independent study of a current topic in Molecular Biology and Genetics, selected from the recent research literature and involving a review and critical appraisal of underlying experimental principles. The course comprises independent library research, participation in weekly meetings, and written and oral presentations. Students must make arrangements with both faculty supervisor and the course coordinator in a prior course selection period. Open to students in semesters 6, 7, and 8 of the B.Sc. Major in Molecular Biology and Genetics. Department of Molecular and Cellular Biology.</td>
<td>Prerequisite(s): MBG<em>3350&lt;br&gt;Restriction(s): MBG</em>4500, MBG<em>4510, MICR</em>4240. Instructor consent required.</td>
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<tr>
<td>MBG*4620</td>
<td>Molecular Cytogenetics W (3-3) [0.50]</td>
<td>Cellular controls of cell proliferation and DNA replication; chromosome structure, behaviour, and aberrations. Department of Molecular and Cellular Biology. (Offered in even-numbered years.)</td>
<td>Prerequisite(s): ( BIOL<em>2200 or BIOL</em>2210), MBG*2020</td>
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Music

School of Fine Art and Music.

Ensembles

Chamber Music

Choir (Symphonic Choir, Chamber Choir, Siren-Women's Choir)

Concert Winds

Contemporary Music Ensemble

Early Music Ensemble

Jazz Band

Orchestra

Solo Performance (Applied Music): Private instruction is offered in piano, voice, orchestral instruments, and various jazz and early instruments. In order to register in Applied Music (MUSC*1500), students must arrange an audition with the School of Fine Art and Music at the time of course selection. Auditions are held prior to the first day of classes each semester. In order to continue to the 2000 level of Applied Music, students must be in a Music program (honours major or minor, or general).

Applied Music courses are designed to be taken in successive semesters. Registration in this sequence following an interruption of a semester or more requires permission of the Director of the School. Students may be required to re-audition before registering to continue in Applied Music. Students must achieve a minimum grade 70% in Applied Music courses in order to proceed to the next level.

Topics Courses: The School will normally offer a "Topics" course each Fall and Winter. See courses MUSC*3800 to MUSC*3850. Please consult the School of Fine Art and Music for specific titles of courses to be offered.

MUSC*1060 Introduction to Music F,W,S (3-0) [0.50]

An introductory course intended for students with NO previous experience in music. The main concepts and terminology of music from the Medieval period through the 20th-century will be explored in connection with the study of selected musical works. (Also offered through distance education format.)

Restriction(s): MUSC*2600, MUSC*2610, MUSC*2620, MUSC*3630

MUSC*1090 Physics of Music W (3-0) [0.50]

A course designed for arts and social science students with an interest or background in music. The fundamentals of vibrations and waves will be introduced and applied to a study of archetypal instruments. The psychoacoustic basis of pitch and loudness will be discussed. (Also listed as PHYS*1810.) (Offered in even-numbered years.)

Restriction(s): PHYS*1810; students who have standing in any other 1000 level Physics course (except PHYS*1020 or PHYS*1600) may enrol in this only if they are completing an honours or general program in Music, in which case permission of the instructor is required.

MUSC*1120 Introduction to Musicianship S,F,W (1-2) [0.25]

Ear training through dictation and sight-singing exercises. Major and minor scales, key signatures, intervals, triads and chord progressions using treble and bass clefs. Prior acquaintance with the rudiments of music (intervals, scales, rhythm, and notation) is expected. (Also offered in Distance Education format.)

Restriction(s): MUSC*1180

MUSC*1180 Musicianship I F,W (2-2) [0.50]

Ear training through dictation and sight-singing exercises; C clefs; elementary improvisation and harmonization.

MUSC*1250 Melody and Counterpoint W (3-0) [0.50]

An introduction to the linear aspects of music through the study of melody, species counterpoint, and figured bass.

Prerequisite(s): 1 of MUSC*1120, MUSC*1180, instructor consent

MUSC*1500 Applied Music I F,W,S (1-6) [0.50]

Individual instruction in the technical and stylistic aspects of artistic solo and ensemble performance. In order to register for this course, students must arrange an audition with the School of Fine Art and Music at the time of course selection.

Restriction(s): Successful completion of an audition. Registration in semesters 1 to 4

MUSC*1510 Applied Music II F,W,S (1-6) [0.50]

A continuation of MUSC*1500.

Prerequisite(s): A minimum grade of 70% in MUSC*1500.

MUSC*2010 The Musical Avant-Garde F (3-0) [0.50]

An introduction to the avant-garde musical life of the 20th century including the works of Debussy, Stravinsky, Satie, Schoenberg, Cage, Cowell, and others.

Restriction(s): MUSC*3630

MUSC*2030 Music in Canada F (3-0) [0.50]

The background and development of musical life in Canada. Cultivation of understanding of Canadian music using recorded examples with emphasis on 20th-century compositions. (Offered in odd-numbered years.)

MUSC*2100 Creating Music on the Computer F,W,S (6-0) [0.50]

An introduction to computer technologies as they apply to the creation and manipulation of music. Topics will be drawn from the areas of sound synthesis and processing, recording, encoding, and transcription. The course will include a classroom and an applied component.

Prerequisite(s): MUSC*1180, some computer experience is also recommended

MUSC*2110 Music of the Circum-Atlantic and the Americas F (3-0) [0.50]

This course offers an ethnomusicological examination of the musical life of West and Central Africa, the Caribbean, and the Americas. (Offered in even-numbered years.)

Restriction(s): MUSC*2350

MUSC*2140 History of Jazz F (3-0) [0.50]

A survey of the major styles, personalities, and performances of the jazz tradition in terms of its social and cultural contexts through the examination of jazz texts and commentary, autobiographies of musicians, and recorded examples of important performances. (Also offered through distance education format.)

MUSC*2150 Music and Popular Culture F,W (3-0) [0.50]

A survey of the major genres, styles, personalities and performance of popular music primarily in the 20th-century through lectures, listening, discussion and reading. Issues such as the relationships between popular music and race, class, technology, and art will be examined. Technical knowledge of music is not required.

MUSC*2180 Musicianship II F,W (2-2) [0.50]

A continuation of MUSC*1180.

Prerequisite(s): MUSC*1180

MUSC*2200 Music of the Near and Far East W (3-0) [0.50]

An ethnomusicological examination of the musical life of the Islamic world, South Asia, Indonesia, and the Far East. (Offered in even-numbered years.)

Equate(s): MUSC*2350

MUSC*2280 Masterworks of Music W,S (0-10) [0.50]

Selected musical works from 1600 to the present will be studied with reference to the historical, literary, and artistic milieu in which they were written and performed. Previous familiarity with basic musical terminology and note reading is required. This is a web-based course. (Offered through distance education format only.)

MUSC*2360 Tonal Harmony I F (3-0) [0.50]

The study of diatonic harmony: triads, progression, secondary dominants, harmonization of melodies and basses; dissonance treatment; diatonic modulation.

Prerequisite(s): MUSC*1250

Equate(s): MUSC*2250

MUSC*2370 Tonal Harmony II W (3-0) [0.50]

A continuation of MUSC*2360 which introduces chromatic harmonies (augmented and Neapolitan sixth chords), suspension chords, linear structures, and non-diatonic modulation.

Prerequisite(s): MUSC*2360

Equate(s): MUSC*2250

MUSC*2500 Applied Music III S,F,W (1-6) [0.50]

A continuation of MUSC*1510.

Prerequisite(s): MUSC*1180, a minimum grade of 70% in MUSC*1510 (MUSC*1180 may be taken as corequisite)

Restriction(s): Registration in a Music specialization.

MUSC*2510 Applied Music IV S,F,W (1-6) [0.50]

A continuation of MUSC*2500.

Prerequisite(s): A minimum grade of 70% in MUSC*2500, (1 of MUSC*2600, MUSC*2610, MUSC*2620).

Restriction(s): Registration in a Music specialization.
MUSC*2530 Instrumental Ensembles I F,W (0-2) [0.25]
The study and performance of selected instrumental music through participation in one of the School's ensembles: the University of Guelph Orchestra, Concert Winds, Contemporary Music Ensemble, Jazz Band, Contemporary Music Ensemble, or the Early Music Ensemble. In order to register for an ensemble, the student must arrange for an audition with the School of Fine Art and Music. Auditions will be held prior to the first day of classes each Fall and Winter semester. Students must check with the School of Fine Art and Music office for audition dates. Students are encouraged to audition for an ensemble in the Fall semester and to participate in it for both Fall and Winter semesters. Not all ensembles will be able to accept new members in Winter. Consult the School of Fine Art and Music for further information.

Restriction(s): Successful completion of an audition. Instructor consent required.

MUSC*2540 Instrumental Ensembles II F,W (0-2) [0.25]
A continuation of MUSC*2530.
Prerequisite(s): MUSC*2530

MUSC*2550 Choral Ensembles I F,W (0-2) [0.25]
The study and performance of selected choral literature through participation in one of the School's ensembles; the University of Guelph Symphonic Choir, the Chamber Choir, or Siren. In order to register for an ensemble, the student must arrange for an audition with the School of Fine Art and Music. Auditions will be held prior to the first day of classes each Fall and Winter semester. Students must check with the School of Fine Art and Music office for audition dates. Students are encouraged to audition for an ensemble in the Fall semester and to participate in it for both Fall and Winter semesters. Not all ensembles will be able to accept new members in Winter. Consult the School of Fine Art and Music for further information.

Restriction(s): Instructor consent required.

MUSC*2560 Choral Ensembles II F,W (0-2) [0.25]
A continuation of MUSC*2550.
Prerequisite(s): MUSC*2550
Equate(s): MUSC*2550
Restriction(s): Instructor consent required.

MUSC*2570 Keyboard Accompaniment I F,W (0-2) [0.25]
Development of sight-reading and accompaniment skills for pianists in close coordination with vocal and instrumental applied music students.
Prerequisite(s): MUSC*2510
Restriction(s): Instructor consent required.

MUSC*2580 Keyboard Accompaniment II F,W (0-2) [0.25]
A continuation of MUSC*2570.
Prerequisite(s): MUSC*2570

MUSC*2600 Music History I: Chant to Josquin F (3-0) [0.50]
A survey of the history of music from chant to the mid-Renaissance. Principal genres and composers from the pre-Christian era to Josquin will be studied.
Prerequisite(s): 1 of MUSC*1120, MUSC*1180
Equate(s): MUSC*2160

MUSC*2610 Music History II: The Reformation to J.S. Bach W (3-0) [0.50]
A survey of the history of music from the mid-16th century to the end of the Baroque era. Principal genres and composers from the beginning of the Italian madrigal to J.S. Bach will be studied.
Prerequisite(s): 1 of MUSC*1120, MUSC*1180
Equate(s): MUSC*2160

MUSC*2620 Music History III: Classical and Romantic Eras F (3-0) [0.50]
A survey of the history of music from the classical era to the late 19th century. Principal genres and composers from C.P.E. Bach to Brahms and Wagner will be studied.
Prerequisite(s): 1 of MUSC*1120, MUSC*1180
Equate(s): MUSC*2170

MUSC*3020 Tonal Analysis F (3-0) [0.50]
A systematic approach to the principles of reductive analysis of tonal music as they are expressed in the theories of Heinrich Schenker. Introduction of graphic notation. (Offered in even-numbered years.)
Prerequisite(s): MUSC*2370

MUSC*3030 Post-tonal Analysis W (3-0) [0.50]
Advanced theoretical consideration of the structure of atonal and 12-tone music. Set theory and other mathematical models. (Offered in even-numbered years.)
Prerequisite(s): MUSC*2370, MUSC*3630

MUSC*3150 Music in London F (3-0) [0.50]
A lecture/seminar course that will examine in depth choral and instrumental music of major composers from representative periods and media, performed at London, England. Compositions will be analyzed in relation to their stylistic technique, formal structure, and historical place in the repertoire of music. A professor of music will present weekly seminars, arrange assignments, and give personal supervision in London.
Restriction(s): Admission to the London Semester.

MUSC*3160 Music in London II F (3-0) [0.50]
A lecture/seminar course that will examine the music of major composers from representative periods in relation to its evolution and in the context of historical perspective. Musical scores and early instruments will be studied at the British Library, university libraries, and other centres. A professor of music will present weekly seminars, arrange assignments and give personal supervision in London.
Restriction(s): Admission to the London Semester.

MUSC*3290 Musicianship III F (3-0) [0.50]
A study of the fundamentals of conducting techniques. Emphasis on practical application to choral and instrumental organizations; score reading and analysis and interpretation of literature. (Offered in odd-numbered years.)
Prerequisite(s): (MUSC*2180, MUSC*2360) or permission of the instructor
Equate(s): MUSC*2290

MUSC*3500 Applied Music V S,F,W (1-6) [0.50]
A continuation of MUSC*2510; restricted to students in a Music program (honours major or minor or general, area of concentration).
Prerequisite(s): 3.00 credits in music courses including a minimum grade of 70% in MUSC*2510
Restriction(s): Registration in a Music program (honours major or minor or general, area of concentration)

MUSC*3510 Applied Music IV S,F,W (1-6) [0.50]
A continuation of MUSC*3500 including preparation and performance of a juried recital; restricted to students in a Music program (honours major or minor or general, area of concentration).
Prerequisite(s): 4.00 credits in music courses including a minimum grade of 70% in MUSC*3500
Restriction(s): Registration in a Music program (honours major or minor or general, area of concentration)

MUSC*3630 20th Century Music F (3-0) [0.50]
This course examines music from the late 19th century (Debussy and post-romantic composers) to the present from both historical and theoretical perspectives.
Prerequisite(s): MUSC*2370, MUSC*2620
Restriction(s): MUSC*2630

MUSC*3740 Issues in Popular Music Studies W (3-0) [0.50]
This course examines the rise and impact of the cultural industries on production and consumption of music, the development of transnational popular music, and the role of popular music in the politics of social identity.
Prerequisite(s): 1 of MUSC*1120, MUSC*1180

MUSC*3750 Popular Musics of the World W (3-0) [0.50]
The major styles and genres of popular musics around the world, with an emphasis on musical style and its relationship to social processes.
Prerequisite(s): MUSC*1180, MUSC*2150

The following "topics" courses normally focus on current areas of faculty research, such as recent developments in jazz research, the reception of the music of Beethoven, the music of Gabriel Fauré, improvisational studies, Lied and Art Song, Russian music and literature, and black music of the circum-Atlantic.

MUSC*3800 Topics in Music U (3-0) [0.50]
A course which examines selected topics in music history, performance practice, analysis, and music within its cultural context.
Restriction(s): Instructor consent required.

MUSC*3810 Topics in Music U (3-0) [0.50]
A course which examines selected topics in music history, performance practice, analysis, and music within its cultural context.
Restriction(s): Instructor consent required.

MUSC*3820 Topics in Ethnomusicology U (3-0) [0.50]
A detailed examination of the world's major musical traditions. Normally, the course will examine either African musical life and that of its descendants in the Americas and the Caribbean, or the musical life of India.
Prerequisite(s): MUSC*2350
### MUSC*3830 Topics in Ethnomusicology U (3-0) [0.50]
A detailed examination of ethnomusicological issues, techniques, methods, and problems. Subject matter will vary according to the instructor.
Prerequisite(s): MUSC*2350

### MUSC*3840 Topics in Music Theory U (3-0) [0.50]
An analytical investigation of a selected topic in music. Topics will rotate on an annual basis and may include advanced theoretical study of Western art music as well as jazz theory.
Restriction(s): Instructor consent required.

### MUSC*3850 Topics in Music Theory U (3-0) [0.50]
An analytical investigation of a selected topic in music. Topics will rotate on an annual basis and may include advanced theoretical study of Western art music as well as jazz theory.
Restriction(s): Instructor consent required.

### MUSC*4200 Directed Readings I F,W (3-0) [0.50]
A reading course designed to enable the student to investigate a topic in music not otherwise available in the curriculum. The student will design a course of readings and assignments with the instructor and submit the proposal to the Director of the School of Fine Art and Music for approval by the last day of course selection in Fall (for Winter) or Winter (for the following Fall).
Prerequisite(s): Completion of the music core.
Restriction(s): Instructor consent required.

### MUSC*4210 Directed Readings II F,W (3-0) [0.50]
Same course description as MUSC*4200.
Prerequisite(s): Completion of the music core.
Restriction(s): Instructor consent required.

### MUSC*4240 Experiential Learning in Music F,W (3-0) [0.50]
This experiential learning option provides qualified undergraduate students with an opportunity to design an independent program that integrates academic study, such as readings or assignments, with off-campus work or performance (paid or volunteer). Written proposals, signed by the instructor, must be submitted to the Director of the School for approval by the last day of course selection in the Full (for Winter) or Winter (for the following Fall).
Prerequisite(s): 3.00 credits in Music
Restriction(s): Instructor consent required.

### MUSC*4401 Honours Music Project F,W (3-0) [0.50]
First part of the two-semester course MUSC*4401/2. Refer to MUSC*4401/2 for course description.
Prerequisite(s): Completion of the music core.
Restriction(s): Permission of the School and registration in an honours major in music (students who wish to propose a recital must also have completed MUSC*3510 with a minimum grade of 80%).

### MUSC*4401/2 Honours Music Project F,W,W-S [1.00]
Preparation of a major theoretical or historical paper or presentation of a full-length recital. Projects are subject to approval of the School, and must be submitted to the Director, on school forms, by the last day of course selection in the previous semester. This is a two-semester course offered over consecutive semesters. When you select it you must select MUSC*4401 in the first semester and MUSC*4402 in the second semester. A grade will not be assigned to MUSC*4401 until MUSC*4402 has been completed.
Prerequisite(s): Completion of the music core.
Restriction(s): Permission of the School and registration in an honours major in music (students who wish to propose a recital must also have completed MUSC*3510 with a minimum grade of 80%).

### MUSC*4402 Honours Music Project S,W (3-0) [0.50]
Second part of the two-semester course MUSC*4401/2. Refer to MUSC*4401/2 for course description.
Prerequisite(s): MUSC*4401
Nutrition

Department of Animal and Poultry Science.
Department of Family Relations and Applied Nutrition.
Department of Human Health and Nutritional Sciences.

**NUTR*1010 Nutrition and Society F,W (3-0) [0.50]**
The significance of nutrition in terms of individuals and societies throughout the world. Factors involved in the application of knowledge of nutritional needs and food selection. Department of Family Relations and Applied Nutrition. (Also offered through distance education format.)

Prerequisite(s): NUTR*2010

Restriction(s): NUTR*2010

**NUTR*2050 Family and Community Nutrition F (3-0) [0.50]**
Nutritional needs through the life cycle and their significance in family and community health. Department of Family Relations and Applied Nutrition. (Also offered through distance education format.)

Prerequisite(s): NUTR*1010

Restriction(s): NUTR*3010

**NUTR*2150 Introduction to Nutritional and Food Sciences F (3-0) [0.50]**
This interdisciplinary course provides an introduction to the Food and Nutritional Sciences from both historical and modern perspectives. Major themes are the nutritional and functional properties of food, nutrient assimilation, food preservation and safety, and the interactions between food processing, diets and health. The course is taught by the Department of Food Science. (Also listed as FOOD*2150.)

Prerequisite(s): BIOL*1040, CHEM*1040 or CHEM*1300

Equate(s): FOOD*2150

Restriction(s): AGR*3330, FOOD*2010, FOOD*3070. Not available to students registered in Applied Human Nutrition major.

**NUTR*3040 Clinical Nutrition I W (3-0) [0.50]**
Prerequisite(s):

NUTR*1010

Restriction(s): NUTR*3010

**NUTR*3190 or NUTR*3210**

Restriction(s):

Biostatistics for Health Science Students (STAT*2090)

**NUTR*3040 Clinical Nutrition II F (3-0) [0.50]**
A continuation of NUTR*3040. This lecture and laboratory based course is concerned with the application of nutrition to clinical problems. Methods and content of medical nutrition therapy in prevention and treatment of gastrointestinal, renal, hepatic diseases and catabolic states will be emphasized. Ethical issues in nutrition management of disease and health professional practice will be addressed. A case study based course. Department of Family Relations and Applied Nutrition.

Prerequisite(s):

NUTR*3040, BIOM*3110

Restriction(s): Registration in the 4th year of the Applied Human Nutrition Major.

**NUTR*3210 Fundamentals of Nutrition F,W (3-0) [0.50]**
This is the foundation course for the study of nutrition. The occurrence, uptake and metabolic role of nutrients will be discussed in relation to growth, reproduction and longevity in human subjects, domestic animals and other species. Department of Human Health and Nutritional Sciences.

Prerequisite(s): BIOC*2580

Restriction(s): NUTR*3190

**NUTR*3330 Micronutrients, Phytochemicals and Health F (3-0) [0.50]**
The course emphasizes the biochemical basis for the dietary essentiality of vitamins and minerals. The course extends the fundamentals of nutrition to include conditional essentiality of micronutrients, biochemical individuality and the use of micronutrient supplementation to promote human and animal health. Both plant and animal sources of nutrients are discussed. Department of Human Health and Nutritional Sciences.

Prerequisite(s): NUTR*3190 or NUTR*3210

**NUTR*3340 Nutrition of Fish and Crustacea W (3-0) [0.50]**
The nutrition of fish and crustaceans with emphasis on those species used in aquaculture. Nutritional biochemistry, nutritional pathology and comparative nutrition of cold blooded, ammonotelic animals mainly carnivorous, contrasted with warm blooded ureotelic omnivores. Department of Animal and Poultry Science. (Offered in even-numbered years.)

Prerequisite(s): NUTR*3190 or NUTR*3210

**NUTR*3350 Wildlife Nutrition W (3-0) [0.50]**

Prerequisite(s): NUTR*3190 or NUTR*3210

**NUTR*3390 Applied Nutritional and Nutraceutical Sciences I F (2-3) [0.50]**
This course will introduce and develop key concepts of the applied aspects of the Nutritional and Nutraceutical Sciences. Enrichment of foods with health protectant chemicals, establishing biomarkers and risk indicators of disease, testing of bioavailability/efficacy to support basic health claims, health assessment and nutrigenomic analysis as adjuvants in the effective use of functional foods and nutraceuticals, and regulatory and marketing/consumer issues are topics that will be addressed.

Prerequisite(s):

NUTR*3190 or NUTR*3210

Restriction(s):

Registration in the Nutritional and Nutraceutical Sciences Major and the Nutritional Sciences and the Functional Food and Nutraceuticals Minor.

**NUTR*4010 Nutritional Assessment F (3-3) [0.75]**
Prerequisite(s):

NUTR*2050, (NUTR*3190 or NUTR*3210)

Restriction(s):

Registration in the 4th year of the Applied Human Nutrition Major.

**NUTR*4040 Clinical Nutrition II F (3-0) [0.75]**
A continuation of NUTR*3040. This lecture and laboratory based course is concerned with the application of nutrition to clinical problems. Methods and content of medical nutrition therapy in prevention and treatment of gastrointestinal, renal, hepatic diseases and catabolic states will be emphasized. Ethical issues in nutrition management of disease and health professional practice will be addressed. A case study based course. Department of Family Relations and Applied Nutrition.

Prerequisite(s):

NUTR*3040, BIOM*3110

Restriction(s): Registration in the 4th year of the Applied Human Nutrition Major.

**NUTR*4070 Nutrition Education F (3-0) [0.50]**
Methods and approaches in nutrition education. Community programs in nutrition for different age groups; dietary counselling; nutrition education in the preschool, in prenatal and other specialized programs. Department of Family Relations and Applied Nutrition.

Prerequisite(s):

FRHD*3400, NUTR*2050

Restriction(s): Registration in B.A.Sc. Program.

**NUTR*4090 Functional Foods and Nutraceuticals W (3-0) [0.50]**
The course examines the relation of functional foods and nutraceuticals (FFN) to foods and drugs. The safety and efficacy of individual FFN products, and the regulatory issues that influence the development and commercialization of FFN in global markets are emphasized. The course is co-operatively taught by the Department of Human Health and Nutritional Sciences and the Department of Food Science. (Also listed as FOOD*4090.)

Prerequisite(s):

NUTR*3190 or NUTR*3210

Restriction(s):

Registration in the Nutritional and Nutraceutical Sciences Major and

Restriction(s): Registration in the 4th year of the Applied Human Nutrition Major.

**NUTR*4200 Nutrition and Immune Function W (3-0) [0.50]**
This course integrates existing knowledge in several areas - nutrition, metabolism and immunology. Of particular interest are the underlying mechanisms of nutritional immunomodulation with particular reference to the human problem of protein-energy malnutrition. Food sensitivities and the immunological functions of milk will also be considered. Department of Human Health and Nutritional Sciences. (Offered in odd-numbered years.)

Prerequisite(s):

NUTR*3190 or NUTR*3210

**NUTR*4210 Nutrition, Exercise and Energy Metabolism F (3-0) [0.50]**
Energy metabolism will be considered under the headings: thermodynamic principles, energy deposition and hormonal control of metabolism; nutrition, exercise and environmental influences on energy balance and enzyme adaptation; nutrition and exercise in the control of body composition. Department of Human Health and Nutritional Sciences.

Prerequisite(s):

(NUTR*3190 or NUTR*3210), HK*3940

**NUTR*4320 Nutrition and Metabolic Control of Disease W (3-0) [0.50]**
A discussion of disorders of metabolism, either inherited or acquired, in which nutrition plays a major role in the etiology, pathogenesis, or treatment. The nutritional control of metabolic pathways and their role in disease pathogenesis will be considered. The role of dietary factors in promoting health, and the interaction of nutrition with exercise, drugs and gene therapy will be presented. Department of Human Health and Nutritional Sciences.

Prerequisite(s):

NUTR*3190 or NUTR*3210
NUTR*4330 Applied Nutritional and Nutraceutical Sciences II W (2-3) [0.50]
Laboratory and other investigational techniques are covered, together with their underlying concepts. The course is designed to enhance understanding of the design and use of nutraceuticals for human and animal health. Limited to students in Nutritional and Nutraceutical Sciences Major. Department of Human Health and Nutritional Sciences.

Prerequisite(s): (NUTR*3190 or NUTR*3210), NUTR*3330, NUTR*3390, HK*3940
Restriction(s): Registration in B.Sc. Program (Nutritional & Nutraceutical Sciences major).

NUTR*4350 Current Issues F (3-0) [0.50]
This course discusses controversial and/or emerging topics in Human Biology and Nutritional and Nutraceutical Sciences. Topics of current interest will be announced during the course selection period. Department of Human Health and Nutritional Sciences.

Prerequisite(s): (NUTR*3190 or NUTR*3210), HK*3940
Restriction(s): Instructor consent required.

NUTR*4360 Current Issues in Nutrigenomics W (3-0) [0.50]
This course discusses controversial and/or emerging topics in Human Biology and Nutritional and Nutraceutical Sciences as it relates to nutrigenomics. Department of Human Health and Nutritional Sciences.

Prerequisite(s): (NUTR*3190 or NUTR*3210), HK*3940

NUTR*4510 Toxicology, Nutrition and Food F (3-0) [0.50]
The role of foods, herbals and nutraceuticals as sources of antinutrients, natural toxins and environmental contaminants. The impact of toxic exposures on nutritional status, the impact of nutritional status on safe metabolism of toxins, and the use of this knowledge in the design of functional foods. Assessing the risk of genetically modified foods and radioactive contamination of a food supply. Department of Human Health and Nutritional Sciences.

Prerequisite(s): NUTR*3190 or NUTR*3210

NUTR*4810 Applied Human Nutrition Thesis I U (3-0) [0.50]
Planning, developing and writing a research proposal under individual faculty supervision. Topic to be decided by the student in consultation with the supervisory faculty member before course selection or registration period. Department of Family Relations and Applied Nutrition.

Prerequisite(s): FRHD*3070, NUTR*2050, NUTR*3040
Restriction(s): Instructor consent required.

NUTR*4850 Field Experience in Nutrition Education W (2-4) [0.50]
Supervised experience in nutrition education and seminar. Students will apply principles of program planning, nutrition education theory and professional behaviour in a community setting. Placements may be arranged in institutional or community health settings, educational facilities, social services, or food industry. Seminar topics include professional ethics, exploring values, and issues management. Department of Family Relations and Applied Nutrition.

Prerequisite(s): FRHD*3400, NUTR*4040, NUTR*4070
Restriction(s): Instructor consent required.

NUTR*4900 Selected Topics in Human Nutrition W (3-0) [0.50]
Reading and discussion on selected areas in human nutrition and its application; formal class reports and term papers. Primarily for Applied Human Nutrition majors. Department of Family Relations and Applied Nutrition.

Prerequisite(s): FRHD*3070, NUTR*3040, NUTR*4070
Restriction(s): Registration in the 4th year of the Applied Human Nutrition Major.

NUTR*4910 Applied Human Nutrition Thesis II U (6-0) [1.00]
The student will conduct and write an undergraduate thesis under the direction of a faculty member.

Prerequisite(s): NUTR*4810
# Pathology

*Department of Pathobiology.*

Additional course listings may be found in the course descriptions for Veterinary Medicine.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PATH*3610</td>
<td>Principles of Disease W (3-0) [0.50]</td>
<td></td>
<td>A course designed for students with particular interests in nutrition and biology. The course presents basic concepts of disease in the cells, tissues, organs and fluids of the body. Emphasis will be on disease processes resulting from physical, toxic and microbiological and other causes. <em>(Also offered through distance education format.)</em></td>
</tr>
<tr>
<td></td>
<td><strong>Prerequisite(s):</strong> 1.50 credits in biology</td>
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<td></td>
</tr>
<tr>
<td>PATH*3600</td>
<td><strong>Restriction(s):</strong> PATH*3600</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PATH*4100</td>
<td>Diseases of Aquatic Animals F (2-2) [0.50]</td>
<td></td>
<td>A course designed to familiarize the fisheries manager, researcher or veterinarian with the basic principles of diagnosis, prevention, and control of disease of free living and captive aquatic animals, with emphasis on fish.</td>
</tr>
<tr>
<td></td>
<td><strong>Prerequisite(s):</strong> 1.50 credits in biology</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Pharmacology
Department of Biomedical Sciences.
For course listings and descriptions see Biomedical Sciences.
Additional course listings may be found in the course descriptions for Veterinary Medicine and Toxicology.
Philosophy

Department of Philosophy.

Note: Specific descriptions of all courses to be offered in a given semester will be available from the Department of Philosophy in each preceding semester. Students are advised to consult these descriptions. Different sections of a course often emphasize different aspects of that course.

1. All 2000 level philosophy courses are open to students who have completed 5.00 credits or who have completed one of PHIL*1000, PHIL*1010, PHIL*1050.
2. Unless otherwise noted, 3000 level philosophy courses are open to students who have completed at least 1.50 credits in philosophy or 7.50 credits.
3. For most 4000 level courses, students are expected to have completed at least 1.00 credits in philosophy at the 3000 level. Some 4000 level credits have specific prerequisites, e.g. PHIL*4320, PHIL*4360 (see course descriptions in the following pages). If a student is taking several credits with such prerequisites, then the number of other philosophy credits which need to be completed may exceed the general requirement of 1.00 credits at the 3000 level. PHIL*4310 is designed to be open to seventh and eighth semester students who have no previous philosophy credit. If in doubt about being well prepared for a particular course, the student should consult with either the instructor or the chair of the department.
4. Students may receive credit for PHIL*1000, PHIL*1010 and PHIL*1050, but only one may be counted towards the minimum number of philosophy credits required for a degree in philosophy. Students intending to proceed in the discipline at the 2000 level are advised to take only 0.50 credits at the 1000 level.

PHIL*1000 Introductory Philosophy: Major Texts F,W (3-0) [0.50]
An introduction to philosophy through primary texts in the history of philosophy, with emphasis upon traditional topics such as the nature of knowledge and the different types of knowledge, the relationship between the mind and the body, the nature of good and evil, and the nature of sound argument.

PHIL*1010 Introductory Philosophy: Social and Political Issues F,W (3-0) [0.50]
An introduction to philosophy, with particular emphasis upon important problems facing society today, such as punishment, animal rights, discrimination, war and violence, equality and property and the market as a value system. Some consideration of the elements of argumentation will also occur.

PHIL*1050 Introductory Philosophy: Basic Problems F,W (3-0) [0.50]
An introduction to philosophy through the exploration of basic perennial philosophical problems and questions, such as whether there is free will, a God, objective right and wrong, genuine knowledge of the world, and other topics. The readings for the course will consist primarily of 20th century philosophical writing. Some consideration of the elements of argumentation will also occur.

PHIL*2030 Philosophy of Medicine F,W (3-0) [0.50]
An examination of philosophical and ethical issues that arise in human and veterinary medicine, including such topics as the definitions of disease and health, the status of medicine as a science, the role of values in medical research and medical practice, the doctor-patient relationship, psychiatry and the control of human behaviour, and the ethics of genetic counselling.

PHIL*2060 Philosophy of Feminism W (3-0) [0.50]
An examination of metaphorical, epistemological and ethical issues in feminist philosophy, including such topics as the nature and consequences of patriarchy, human nature, sexual divisions of labour, women's studies, rationalizations of inequalities and explorations into a contemporary feminist agenda for social, political and economic changes.

PHIL*2070 Philosophy of the Environment W (3-0) [0.50]
A critical examination of a variety of current ways of thinking about the environment, aimed at developing a satisfactory philosophical approach, especially from an ethical perspective. (Also offered through distance education format.)

PHIL*2100 Critical Thinking F,W (3-0) [0.50]
A course designed to develop clarity of thought and method in the analysis and construction of arguments. By contrast to PHIL*2110, the emphasis here is upon informal principles of critical thinking and arguments stated in terms of ordinary language. Topics include the nature and methods of arguing, classification, definition and fallacies.

PHIL*2110 Elementary Symbolic Logic W (3-0) [0.50]
A study of the basic principles and techniques of formal logic. The analysis of the logical structure of sentences and arguments is explored, together with the fundamental principles of elementary sentential logic and quantification.

PHIL*2120 Ethics F,W (3-0) [0.50]
An examination of competing ethical theories (subjectivism, intuitionism, relativism, utilitarianism, egoism, deontologism) with a view to assessing their theoretical value as well as their ability to provide practical guidance and to resolve moral dilemmas. (Also offered through distance education format.)

PHIL*2130 Philosophy of Religion F (3-0) [0.50]
A consideration of various philosophical questions concerning religion, such as arguments for the existence of God, the problem of evil, the meaning of religious language, the significance of mystical experience, human immortality. (Offered in odd-numbered years.)

PHIL*2140 History of Greek and Roman Philosophy F (3-0) [0.50]
A survey of Western philosophy from the Pre-Socratics (6th-century, B.C.) to Plotinus (3rd-century, A.D.).

PHIL*2160 Modern European Philosophy to Hume W (3-0) [0.50]
A survey of European philosophy from the Renaissance (15th-century) to David Hume (mid-18th century).

PHIL*2180 Philosophy of Science F (3-0) [0.50]
An examination of competing theories concerning the nature of science and its modes of inquiry, and the relationship between theories and data and between scientific knowledge and reality. The central problem of the course is the rational basis of scientific knowledge.

PHIL*2200 Philosophy and Literary Art F (3-0) [0.50]
The course will engage with literary art forms (fiction, drama, poetry, and film) for philosophical goals. Possible emphases include the use of literary works to express philosophical topics; philosophical investigations of the nature of literary art forms; and philosophies of interpretation of such art forms (e.g., classical poetics, hermeneutics, deconstruction, analytical aesthetics).

PHIL*2350 Selected Topics in Philosophy I U (3-0) [0.50]
The topics for this course will vary from one offering to the next, and will deal with material not available in regular courses. Students are advised to consult a departmental advisor before registering.

PHIL*2370 Introduction to Metaphysics F (3-0) [0.50]
A study of major theories of the nature of reality, and of issues and problems that arise in the investigation of fundamental features of the world. Texts read may be either historical or contemporary. Among possible topics explored in the course are materialism, free will, and determinism, the nature of time, and the position of consciousness in the world.

PHIL*2600 Business and Professional Ethics W (3-0) [0.50]
An examination of ethical and evaluative issues relating to business and professional practices. Topics to be explored include the nature of values and ethical systems, duties and rights, private and public goods, the consumer movement, social marketing, corporate social accounting, private right and professional responsibility. Intended for students registered in a science or professional program, but without a background in philosophy.

PHIL*3040 Philosophy of Law F (3-0) [0.50]
An examination of philosophical theories concerning the nature of law and morality. The course may also include an examination of the way in which controversial ethical and social issues are treated under the Canadian Charter of Rights and Freedoms.

PHIL*3050 Philosophy of Art W (3-0) [0.50]
A consideration of various philosophical questions concerning art such as the nature of a work of art, the nature of beauty, the relationship between the artist and the audience, the task of the art critic, the social function of art.

PHIL*3060 Medieval Philosophy W (3-0) [0.50]
A study of philosophy from the Patristic period (3rd century A.D.) to the early Renaissance (14th-century). The ideas of the central figures will be examined through original sources. (Offered in even-numbered years.)

PHIL*3080 History of Modern European Philosophy from Kant F (3-0) [0.50]
A survey of European philosophy from Immanuel Kant (mid-18th century) to the late 19th century.

PHIL*3090 Philosophy of Kant W (3-0) [0.50]
Kant revolutionized the philosophical tradition of investigating objectivity (asking what the nature of reality is, in itself) by investigating subjectivity (asking how knowledge is possible for us). This course will typically examine one of Kant's Critiques and/or a central philosophical theme that appears in Kant's works.

PHIL*3130 Contemporary British and American Philosophy F (3-0) [0.50]
A survey of philosophical movements mainly centred in Britain and America from the late 19th-century to the present.
XII. Course Descriptions, Philosophy 445

PHIL*3170 Intermediate Philosophy of Science W (3-0) [0.50]
A study of more specialized questions posed by the nature of science and its investigation. Topics may include realism and antirealism, naturalized explanations, and other contemporary problems in the philosophy of science.
Prerequisite(s): PHIL*2180

PHIL*3180 Philosophy of Mind W (3-0) [0.50]
A philosophical examination of fundamental theories and problems concerned with mind, thought, and consciousness.
Prerequisite(s): 1.50 credits in philosophy

PHIL*3190 Theory of Knowledge F (3-0) [0.50]
A survey of traditional discussion of the problems of knowledge.
Prerequisite(s): 1.50 credits in philosophy

PHIL*3200 Contemporary European Philosophy W (3-0) [0.50]
A survey of philosophical movements mainly centred in continental Europe from the late 19th-century to the present.
Prerequisite(s): 1.50 credits in philosophy

PHIL*3210 Women in the History of Philosophy F (3-0) [0.50]
This course will examine selected works of women philosophers and their contributions to the major philosophical debates of their day.

PHIL*3230 Issues in Social and Political Philosophy W (3-0) [0.50]
A detailed examination of one or more historical or contemporary treatments of specific issues in social or political philosophy, such as: war and peace, justice, rights, social science, culture, education.

PHIL*3350 Selected Topics in Philosophy II U (3-0) [0.50]
The topics for this course will vary from one offering to the next, and will deal with material not available in regular courses, such as Philosophy of History, Philosophy of Social Science and advanced Philosophy of Religion. Students are advised to consult an academic counsellor before registering.

PHIL*3410 Major Texts in the History of Philosophy W (3-0) [0.50]
A study of central primary sources in ancient, medieval, early modern or nineteenth-century philosophy. The readings and periods stressed will vary from year to year. Students should consult with the department as to topics to be dealt with in each offering. Specific topics offered will be announced prior to the course selection period.

PHIL*3420 Philosophical Problems of Religion F (3-0) [0.50]
A detailed examination of major problems and writings in the philosophy of religion. (Offered in even-numbered years.)
Prerequisite(s): 1.50 credits in Philosophy, including one of PHIL*2130, PHIL*3910, PHIL*3920

PHIL*3810 Indian Philosophy F (3-0) [0.50]
An analysis of selected primary sources of Indian philosophy in translation, from the Vedic Upanishads to the “integral yoga” of Sri Aurobindo. Emphasis will be on the basic inspirational works of Hinduism and Buddhism, and their respective views on the ultimate nature of reality, the self, suffering, freedom, ignorance and enlightenment.
Restriction(s): PHIL*2910

PHIL*3920 Chinese Philosophy W (3-0) [0.50]
An analysis of selected primary sources of Chinese philosophy, in translation, from the I Ching to Mao Tse-tung. Emphasis will be on the foundational works of Confucianism, Taoism, Ch'an (or Zen) Buddhism, and Neo-Confucianism, concerning such issues as the ultimate nature of being, non-being and human destiny, proper government of the self, the family and society, and the principles and practice of enlightenment.
Restriction(s): PHIL*2920

PHIL*3930 African Philosophy F (3-0) [0.50]
An introduction to the philosophical traditions of Africa, part historical and part contemporary. The shorter historical section will cover some themes from the thought of ancient Egypt, early Christian and Islamic philosophy in North Africa and precolonial traditions from West Africa. The greater section of the course will deal with philosophical movements in Africa since the 1960s, as well as their implications for African American thought and philosophy generally. (Offered in even-numbered years.)

PHIL*4110 Symbolic Logic U (3-0) [0.50]
A study of issues and techniques beyond the level of elementary sentential logic and quantification. A consideration of some topics in logical theory. An extension of material explored in PHIL*2110, with special focus on philosophical aspects or implications of formal logic.
Prerequisite(s): PHIL*2110

PHIL*4230 Social and Political Philosophy U (3-0) [0.50]
This is an advanced level course that examines in detail selected historical or contemporary treatments of specific issues in social and political philosophy.
Prerequisite(s): PHIL*2120 or PHIL*3230

PHIL*4270 Current Philosophical Issues U (3-0) [0.50]
A study of primary philosophical texts since 1965. The focus of the course will alternate between analytic texts and issues and continental texts and issues.
Prerequisite(s): 2.00 credits in Philosophy

PHIL*4310 Applied Ethics U (3-0) [0.50]
An advanced study of specific problems in applied ethics. This is an intensive course designed for philosophy majors as well as for seventh and eighth semester students who have had no previous philosophy course.

PHIL*4320 Value Theory U (3-0) [0.50]
An advanced study of problems in social and political philosophy, aesthetics, or general theory of value.
Prerequisite(s): 1 of PHIL*2120, PHIL*3050, PHIL*3230

PHIL*4340 Ethics U (3-0) [0.50]
An advanced study of problems in contemporary ethics.
Prerequisite(s): PHIL*2120

PHIL*4360 Theory of Knowledge II U (3-0) [0.50]
An examination of central problems concerning the nature of knowledge. In some offerings the selection will emphasize problems in the Philosophy of Language.
Prerequisite(s): 2.50 credits in Philosophy or PHIL*3190

PHIL*4370 Metaphysics U (3-0) [0.50]
An advanced study of problems concerning the nature of reality.

PHIL*4390 Selected Topics in Philosophy III U (3-0) [0.50]
Open to honours philosophy students in their 7th and 8th semesters.

PHIL*4400 Major Texts in Philosophy U (3-0) [0.50]
Advanced study of a major text in philosophy not treated in either PHIL*4410 or PHIL*4420.

PHIL*4410 Major Texts in Philosophy U (3-0) [0.50]
Advanced study of a major text in philosophy not treated in either PHIL*4400 or PHIL*4420.

PHIL*4420 Major Texts in Philosophy U (3-0) [0.50]
Advanced study of a major text in philosophy not treated in either PHIL*4400 or PHIL*4440.

PHIL*4800 Honours Philosophy Research Paper I U (3-0) [0.50]
The preparation of a major research paper under the supervision of a faculty member. Normally open only to 7th semester honours philosophy students.
Restriction(s): Instrucutor consent required.
Physics
Department of Physics.

PHYS*1000 An Introduction to Mechanics F (3-2) [0.50]
A course for physical science students which develops the concepts of mechanics as applied to translational and rotational kinematics and dynamics, equilibrium of rigid bodies, oscillations, gravitation, special relativity, and fluid statics and dynamics. Normally this is part of the two-course unit PHYS*1000 and PHYS*1010.
Prerequisite(s): [1 of 4U Physics, OAC (or equivalent) Physics, PHYS*1020], 4U or OAC (or equivalent) Calculus
Restriction(s): PHYS*1080, PHYS*1110

PHYS*1010 Introductory Electricity and Magnetism W (3-2) [0.50]
A course for physical science students on the phenomena of electromagnetism. Topics include electric charges and fields, electric potential, magnetic fields, waves and electric circuits. Normally this is part of the two-course unit PHYS*1000 and PHYS*1010.
Prerequisite(s): (MATH*1080 or MATH*1200), (1 of 4U Physics, OAC Physics, PHYS*1020)

PHYS*1020 Introductory Physics F,W (3-3) [0.50]
A course stressing the fundamental properties of particles and waves, designed for students without OAC Physics or equivalent. Topics include: the motion of particles, force, field, momentum, energy and associated conservation laws; basic interactions between particles; properties of waves. It is expected that students will have completed Grade 12 or 3U Physics and at least 1 OAC or 4U mathematics credit. This course is intended only for students who require the equivalent of 4U or OAC Physics in order to proceed to PHYS*1000, PHYS*1010, PHYS*1070, PHYS*1080, PHYS*1110, PHYS*1130, PHYS*2040. Students may not take this course for credit if they have passed 4U or OAC Physics (or equivalent). (Also offered through distance education format.)

PHYS*1070 Introductory Physics for Life Sciences F,W (3-3) [0.50]
Physics of matter and energy at the macroscopic and microscopic levels, with special emphasis on topics of importance to the biological sciences. Topics include properties of waves, acoustics and hearing, optical systems and vision, quantum nature of radiation and its interaction with biomolecules, electricity, high energy radiation and radioactivity.
Prerequisite(s): (1 of 4U Physics, OAC Physics, PHYS*1020), one 4U or OAC Mathematics course
Restriction(s): PHYS*1130

PHYS*1080 Physics for Life Sciences F,W (3-3) [0.50]
A course complementary to PHYS*1070 or PHYS*1130 with emphasis on some aspects of classical physics important in the biological and environmental sciences. Topics include mechanics and applications to anatomical problems, fluid statics and dynamics, molecular motion, diffusion, osmosis, and heat.
Prerequisite(s): (1 of 4U Physics, OAC Physics, PHYS*1020), one 4U or OAC Mathematics course
Restriction(s): PHYS*1000, PHYS*1110

PHYS*1130 Physics with Applications W (3-3) [0.50]
This course is for engineering and environmental science students, and uses some calculus in analytic problem-solving. Topics include simple harmonic motion, waves, acoustics, optics, properties and absorption of electromagnetic radiation, blackbody radiation, solar spectrum and flux, electric field and potential, DC circuits, power transmission, nuclear processes, and radioactivity.
Prerequisite(s): (MATH*1080 or MATH*1200), (1 of 4U Physics, OAC Physics (or equivalent), PHYS*1020)
Restriction(s): PHYS*1070

PHYS*1600 Contemporary Astronomy S,F (3-0) [0.50]
A course designed for arts and social science students. Emphasis will be on the interdisciplinary and contemporary aspects of astronomy with the object of providing a perspective of our place in the physical universe. Topics will include the solar system, stars and stellar evolution, pulsars, black holes, quasars and cosmology. Students are encouraged to suggest and participate in discussion on items of special interest. Students with a credit in any Physics course except PHYS*1020, PHYS*1810 may not take this course. (Also offered through distance education format.)
Restriction(s): Students with standing in any other 1000 level course credit in physics (except PHYS*1020, PHYS*1810) may not use this course for credit.

PHYS*1810 Physics of Music W (3-0) [0.50]
A course designed for arts and social science students with an interest or background in music. The fundamentals of vibrations and waves will be introduced and applied to a study of archetypal instruments. The psychoacoustic basis of pitch and loudness will be discussed. Students who have standing in any other 1000 level physics course, except PHYS*1020 or PHYS*1600, may enrol in this course only if they are completing an honours or general B.A. program in Music. In this case, permission of the instructor is required. (Also listed as MUSC*1090.) (Offered in even-numbered years.)
Equate(s): MUSC*1090

PHYS*2030 Biophysics of Excitable Cells W (3-1) [0.50]
An intermediate biophysics course with special emphasis on the physical properties of nerve cells and of biological transducers such as the ear and the eye.
Prerequisite(s): IPS*1220 or 1.00 credits in physics (excluding PHYS*1020, PHYS*1600, PHYS*1810)

PHYS*2040 Fundamental Electronics and Sensors W (3-3) [0.50]
An introduction to modern electronics. Topics covered include DC and AC circuit analysis, digital circuits, analog circuits with emphasis on operational amplifiers and analog-to-digital and digital-to-analog conversion. Applications include the interfacing of various sensors to measure physical parameters.
Prerequisite(s): 0.50 credits in university level calculus, (1 of 4U Physics, OAC Physics, PHYS*1020)

PHYS*2260 Experimental Basis of Quantum Physics S,W (3-0) [0.50]
The course investigates and describes the properties of atoms, nuclei and elementary particles in terms of phenomena of modern physics. Topics include wave properties of matter, particle properties of electromagnetic radiation, uncertainty principle, elementary angular momentum, spin and elementary quantum mechanics.
Prerequisite(s): (1 of MATH*1000, MATH*1080, MATH*1200, IPS*1110), (1 of IPS*1220, PHYS*1010, PHYS*2460)

PHYS*2440 Mechanics I F (3-2) [0.75]
This course and the following one, PHYS*2450, continue building the foundation in mechanics begun in the first year. These courses are intended for students proceeding to advanced studies in the physical sciences. Topics include analysis of experimental uncertainties (errors), one, two and three dimensional motion, damped and forced harmonic oscillator, gravitation and orbital motion. The laboratory work requires a formal treatment of error analysis, as well as computer programming for data analysis.
Prerequisite(s): (1 of MATH*1210+, MATH*2080, IPS*1210+), (1 of IPS*1220+, PHYS*1000+, PHYS*1080+, PHYS*1110+)(*preferred)

PHYS*2450 Mechanics II W (3-2) [0.75]
This course is a continuation of PHYS*2440. Topics include special relativity, noninertial reference frames, dynamics of systems of particles, and rigid body dynamics.
Prerequisite(s): PHYS*2440

PHYS*2460 Electricity and Magnetism I F (3-2) [0.75]
This course and the following one, PHYS*2470, continue building the foundation in electricity and magnetism begun in the first year. These two courses are intended for students proceeding to advanced studies in the physical sciences. Topics include vector calculus, electric fields, potential, electric work and energy, Gauss's Law, Poisson's and Laplace's equations, capacitors, D.C. circuits, transients and dielectric materials. The laboratory work requires a formal treatment of error analysis, as well as computer programming for data analysis.
Prerequisite(s): (1 of IPS*1220+, PHYS*1010+, PHYS*1070, PHYS*1130), (1 of MATH*1210+, MATH*2080, IPS*1210+), (1 of IPS*1220+, PHYS*1000+, PHYS*1080, PHYS*1110+) (+preferred)
Co-requisite(s): PHYS*2440

PHYS*2470 Electricity and Magnetism II W (3-2) [0.75]
This course is a continuation of PHYS*2460. Topics include magnetic forces and fields, the Biot-Savart equation, Ampere's Law, magnetic induction, LRC transients, A.C. circuits, and magnetic materials.
Prerequisite(s): PHYS*2460

PHYS*2550 Radiation and the Environment F (3-0) [0.50]
This course reviews radiations which occur in the environment and their effects on materials and living systems. These include x-radiation, ultraviolet, visible, infrared, microwave and radio-frequency emissions; acoustical and ultrasonic radiation; and alpha, beta, and gamma radiation from radioactive material. (Offered in even-numbered years.)
Prerequisite(s): (1 of IPS*1220, PHYS*1010, PHYS*1070, PHYS*1130), 0.50 credits in mathematics at the 1000 level (excluding MATH*1050)
<table>
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<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS*2450</td>
<td>General Astronomy</td>
<td>S,F (3-2) [0.50]</td>
<td>0.50 credits in physics at the 1000 level (excluding PHYS<em>1600, PHYS</em>1810), 0.50 credit in mathematics at the 1000 level</td>
</tr>
<tr>
<td>PHYS*3080</td>
<td>Energy W</td>
<td>(3-0) [0.50]</td>
<td>Energy resources and the production, transmission, interconversion, consumption and waste of energy in the industrial society. Emphasis is placed on environmental impact and human safety. Topics include fossil fuels, nuclear fission and fusion, wind and solar power, the hydrogen economy, and conservation strategies. 0.50 credits in physics at the 1000 level (excluding PHYS<em>1020, PHYS</em>1600, PHYS<em>1810), 0.50 credits in mathematics at the 1000 level (excluding MATH</em>1050)</td>
</tr>
<tr>
<td>PHYS*3100</td>
<td>Electronics F</td>
<td>(3-2) [0.75]</td>
<td>Topics include: amplifier properties; signal processing using operational amplifiers; introduction to digital electronics, including counters and registers; circuits to convert analog signals to digital and vice-versa; introduction to the physics of semiconductor devices. The laboratory illustrates lecture topics, and a major component consists of techniques to interface a computer to integrated circuits for data acquisition. PHYS*2470</td>
</tr>
<tr>
<td>PHYS*3220</td>
<td>Waves and Optics W</td>
<td>(3-0) [0.50]</td>
<td>Standing and travelling waves; normal modes; Fourier series; optics including polarization, interference and diffraction. PHYS*2440</td>
</tr>
<tr>
<td>PHYS*3230</td>
<td>Quantum Mechanics I F</td>
<td>(3-1) [0.50]</td>
<td>A formal treatment of quantum mechanics. Topics include wave packets and free particle motion, the Schrodinger equation, harmonic oscillator, piecewise constant potentials, central forces and angular momentum, hydrogen atom. PHYS<em>2070 or PHYS</em>2260, MATH<em>2160, MATH</em>2170 or MATH<em>2270, PHYS</em>2470</td>
</tr>
<tr>
<td>PHYS*3240</td>
<td>Statistical Physics I</td>
<td>S,F (3-0) [0.50]</td>
<td>Introduction to statistical physics including thermodynamics and statistical mechanics of equilibrium phenomena. MATH<em>2200, PHYS</em>2260 or PHYS*2440</td>
</tr>
<tr>
<td>PHYS*3400</td>
<td>Advanced Mechanics W</td>
<td>(3-0) [0.50]</td>
<td>This course covers Lagrangian mechanics and Hamiltonian mechanics. Topics include least action principles, Poisson brackets, Liouville's theorem, Hamilton-Jacobi theory, the transition to quantum mechanics and introduction to non-linear dynamics. (MATH<em>2170 or MATH</em>2270), PHYS*2450</td>
</tr>
<tr>
<td>PHYS*3510</td>
<td>Intermediate Laboratory W</td>
<td>(0-6) [0.50]</td>
<td>A modular course for physics students including modern and classical physics experiments. Modules include laboratory instrumentation employing computers, modern physics, waves and optics, molecular physics, biophysics, and solid state physics. PHYS<em>2450, PHYS</em>3100</td>
</tr>
<tr>
<td>PHYS*4040</td>
<td>Quantum Mechanics II W</td>
<td>(3-0) [0.50]</td>
<td>A second course in quantum mechanics. Topics include spin, linear vector spaces, two-level systems, quantum dynamics, rotations and angular momentum, time dependent perturbation theory, Born approximation. PHYS*3230</td>
</tr>
<tr>
<td>PHYS*4120</td>
<td>Atomic and Molecular Physics F</td>
<td>(3-0) [0.50]</td>
<td>The application of quantum theory to atomic and molecular structure, and the interaction between electromagnetic radiation and atoms and simple molecules. PHYS<em>3240, PHYS</em>4040</td>
</tr>
<tr>
<td>PHYS*4130</td>
<td>Subatomic Physics W</td>
<td>(3-0) [0.50]</td>
<td>This course surveys the field of subatomic physics from radioactive emanations to conjectured subunits of nucleons. Topics include quark models; strong, electromagnetic and weak interactions; isospin, strangeness, conservation laws and symmetry principles; systemsatics of nuclear properties, nuclear radioactivity, nuclear models and reactions. PHYS*3230</td>
</tr>
<tr>
<td>PHYS*4150</td>
<td>Solid State Physics W</td>
<td>(3-0) [0.50]</td>
<td>Bonding in solids, thermal and electrical properties of solids, energy bands, imperfections in solids, properties of semiconductors and insulators. PHYS<em>3220, PHYS</em>3230, PHYS<em>3240 Recommended: PHYS</em>4240 PHYS*4040 (if not taken as a pre-requisite)</td>
</tr>
<tr>
<td>PHYS*4180</td>
<td>Advanced Electromagnetic Theory</td>
<td>F (3-0) [0.50]</td>
<td>Radiation from localized charge-current distributions (atoms, molecules, nuclei, antennae), electromagnetic potentials, gauge transformations, Lagrangian and Hamiltonian formalisms, multipole expansions of electrostatic and magnetostatic fields, and a selection of topics from: radiation damping, Lorentz electron theory, wave guides, plasmas, relativistic electrodynamics, radiation scattering. PHYS<em>2470, PHYS</em>3400</td>
</tr>
<tr>
<td>PHYS*4240</td>
<td>Statistical Physics II F</td>
<td>(3-0) [0.50]</td>
<td>A continuation of PHYS<em>3240 including a discussion of the grand canonical distribution, quantum statistics, and transport theory. PHYS</em>3230, PHYS*3240</td>
</tr>
<tr>
<td>PHYS*4500</td>
<td>Advanced Physics Laboratory F</td>
<td>(0-6) [0.50]</td>
<td>A modular course for students in any physics-related major who will study techniques of nuclear, solid state and molecular physics. PHYS<em>2450, PHYS</em>3100</td>
</tr>
<tr>
<td>PHYS*4510</td>
<td>Advanced Physics Project W</td>
<td>(0-6) [0.50]</td>
<td>Students will be assigned projects related to their individual interests. These projects may be part of the ongoing research within the Physics Department. Selection of a faculty supervisor and approval of course coordinator must be obtained before course selection. PHYS*3510</td>
</tr>
<tr>
<td>PHYS*4540</td>
<td>Molecular Biophysics</td>
<td>W (3-0) [0.50]</td>
<td>Physical methods of determining macromolecular structure: energetics, intramolecular and intermolecular forces, with applications to lamellar structures, information storage, DNA and RNA, recognition and rejection of foreign molecules. PHYS<em>2450, PHYS</em>3230</td>
</tr>
<tr>
<td>PHYS*4560</td>
<td>Biophysical Methods</td>
<td>F (3-0) [0.50]</td>
<td>An introduction to physical techniques to determine the structure of macromolecules and macromolecular structures of biological interest. Topics include: differential calorimetry, X-ray and neutron scattering, electron microscopy, Raman and infrared spectroscopy, nuclear magnetic resonance, and electron spin resonance. Applications of these techniques in the study of biological membranes will be emphasized. Students taking this course should already have taken PHYS<em>4240 or be taking this course concurrently. PHYS</em>3220, PHYS*4040</td>
</tr>
<tr>
<td>PHYS*4910</td>
<td>Advanced Topics in Physics I</td>
<td>U (3-0) [0.50]</td>
<td>The content of this course is determined by the interests of the students. Possible topics include fluid mechanics, theory of elastic solids, general relativity, astrophysics, and chaos. This course is not offered every year. (MATH<em>2150 or MATH</em>2160), (MATH<em>2170 or MATH</em>2270), PHYS<em>2450, PHYS</em>2470</td>
</tr>
<tr>
<td>PHYS*4920</td>
<td>Advanced Topics in Physics II</td>
<td>U (3-0) [0.50]</td>
<td>The content of this course is determined by the interests of the students. Possible topics include fluid mechanics, theory of elastic solids, general relativity, astrophysics, and chaos. This course is not offered every year. (MATH<em>2150 or MATH</em>2160), (MATH<em>2170 or MATH</em>2270), PHYS<em>2450, PHYS</em>2470</td>
</tr>
<tr>
<td>PHYS*4930</td>
<td>Advanced Topics in Physics III</td>
<td>U (3-0) [0.50]</td>
<td>The content of this course is determined by the interests of the students. Possible topics include fluid mechanics, theory of elastic solids, general relativity, astrophysics, and chaos. This course is not offered every year. (MATH<em>2150 or MATH</em>2160), (MATH<em>2170 or MATH</em>2270), PHYS<em>2450, PHYS</em>2470</td>
</tr>
</tbody>
</table>
## Physiology

*Department of Biomedical Sciences.*

For course listings and descriptions see Biomedical Sciences.

Additional course listings may be found in the course descriptions for Veterinary Medicine and Human Kinetics.

Students wishing to study Physiology can complete a 3000 level course or course sequence in: ZOO*3200; or ZOO*3210; or HK*3940; or BIOM*3100; and either BIOM*3110 or BIOM*3120. In addition, students can select specialized courses at the 4000 level (preferably at least 2 with labs) offered by the:

### Department of Biomedical Sciences:
- **BIOM*4020** [0.50] Physiology of Digestion
- **BIOM*4030** [0.50] Endocrine Physiology
- **BIOM*4041/2** [1.00] Mammalian Reproductive Biology
- **BIOM*4050** [0.50] Biomedical Aspects of Aging

### School of Human Biology:
- **HK*4320** [0.75] Work Physiology
- **HK*4460** [0.50] Regulation of Human Metabolism
- **HK*4530** [0.50] Human Cardiovascular Physiology

### Department of Zoology:
- **ZOO*4170** [0.50] Experimental Comparative Animal Physiology
- **ZOO*4390** [0.50] Environmental Physiology
- **ZOO*4470** [0.50] Comparative Endocrinology
XII. Course Descriptions, Plant Biology

Department of Integrative Biology
Department of Environmental Biology
Department of Land Resource Science
Department of Plant Agriculture

PBIO*3110 Crop Physiology F (3-3) [0.50]
Physiological and biochemical principles related to production by crop canopies. Carbon fixation, leaf area, light interception, assimilate distribution, water relations and nutrient utilization are used to develop solutions to problems of crop yield and quality. Growth and development in response to cultural innovations including the use of growth regulators are also considered. Department of Plant Agriculture.
Prerequisite(s): BIOL*1040 or BOT*1150

PBIO*3750 Plant Tissue Culture F (2-3) [0.50]
An examination and discussion of the principles, protocols and utilization of plant cell tissue culture systems. In vitro propagation and regeneration, mutagenesis and selection, secondary metabolite elicitation and cell transformation techniques including protoplast fusion, direct DNA uptake and plant bacterial co-cultivation will be emphasized. Department of Plant Agriculture.
Prerequisite(s): BOT*2100

PBIO*4000 Molecular and Cellular Aspects of Plant-Microbe Interactions F (3-0) [0.50]
Examination of molecular and cellular aspects of the interaction between plants and microorganisms such as mycorrhizae, pathogenic fungi, Agrobacterium, pathogenic bacteria, and plant viruses. Topics include microbial virulence, signaling, gene expression, and disease resistance in plants. Departments of Integrative Biology and Environmental Biology.
Prerequisite(s): BOT*2100, (MBG*2020 and MICR*2020 are recommended)

PBIO*4100 Soil Plant Relationships W (3-0) [0.50]
Root growth as affected by soil properties; soil plant water relations; soil aeration; absorption, translocation and function of nutrients in plants; ion transport to roots; rhizosphere effects; application of concepts to crop production. Department of Land Resource Science.
Prerequisite(s): 1 of AGR*2301/2, BOT*2100, BOT*2300, SOIL*2010, equivalent

PBIO*4150 Molecular and Cellular Aspects of Plant Development W (3-0) [0.50]
An examination of the molecular and cellular processes that underlie cellular differentiation and organ formation in plants. The roles of homeotic genes, gene regulation, cell polarity, morphogens and environmental effects in development will be discussed. Subjects will be introduced by a lecture and examined in detail in discussions of pertinent research papers. Department of Plant Agriculture. (Offered in even-numbered years.)
Prerequisite(s): 1 of BOT*2100, BOT*2300, BOT*2400

PBIO*4300 Research Opportunities in Plant Biotechnology I S,F,W (0-12) [1.00]
This course is specifically designed to encourage students to conduct research in an area of Plant Biotechnology. It is normally open to students registered in semesters 7 and 8. Independent theoretical and laboratory research will be conducted under the supervision of individual faculty. Oral and written presentations will be made. Students must make arrangements with both a faculty supervisor and the course coordinator in the semester prior to registration.
Prerequisite(s): MBG*3350
Restriction(s): Cannot be enrolled in PBIO*4310 concurrently, registration in semester 7 or 8 of the B.Sc. Plant Biotechnology Major.

PBIO*4310 Research Opportunities in Plant Biotechnology II S,F,W (0-12) [1.00]
This course is specifically designed to encourage students to conduct research in an area of Plant Biotechnology. It is normally open to students registered in semesters 7 and 8. Independent theoretical and laboratory research will be conducted under the supervision of individual faculty. Oral and written presentations will be made. Students must make arrangements with both a faculty supervisor and the course coordinator in the semester prior to registration.
Prerequisite(s): PBIO*4300
Restriction(s): Registration in semester 7 or 8 of the B.Sc. Plant Biotechnology Major.

PBIO*4600 Plant Environment Interaction and Stress Physiology W (3-2) [0.75]
The effects of environmental stresses on plant growth, development and yield, and the physiological and physical mechanisms used by plants to tolerate these stresses are discussed with emphasis on low temperature, wind and water stresses. Fundamental plant processes including membrane transport, cell elongation, stomatal control, osmotic adjustment, sap flow, photosynthesis and the role of growth regulators are discussed in relation to their response to environmental stress. Department of Plant Agriculture.
Prerequisite(s): BOT*2300 or BOT*3310

PBIO*4750 Genetic Engineering of Plants W (3-3) [0.50]
An examination and discussion of the principles, protocols and applications of molecular biology and transformation technology to the genetic improvements of plants. Department of Plant Agriculture.
Prerequisite(s): MBG*2020
Equate(s): PBIO*3760
Political Science

Department of Political Science.

For courses without semester designations, please check with the department. Advance schedules are available in the department.

The department works in cooperation with the department of Political Science at the University of Waterloo to offer courses via the video link classroom. These courses are identified by the designation LINK in their course description. Further information can be obtained from the department.

POLS*1150 Understanding Politics F,W (3-1) [0.50]
This is the recommended introductory course for students intending to pursue a specialization in Political Science. An introduction to the basic concepts of politics, such as liberty, equality, social justice, constitutionalism, sovereignty, federalism, parliamentary versus presidential government. The course will emphasize the meaning and use of these terms within Canada in the context of other political systems.
Restriction(s): POLS*1000, POLS*1300

POLS*1400 Public Management and Administration F (3-1) [0.50]
This course examines the changes in the organization and function of government in Canada with particular attention to selected public policy issues. The content will be adapted to meet the specialized needs of students from other disciplines. Weekly seminars are required. (Also offered through distance education format.)

POLS*1500 World Politics F (3-0) [0.50]
An examination of the fundamental patterns of international politics, focusing especially on the major issues and contemporary events at the root of international conflict. As well, the reality of globalization and interdependence is assessed in terms of the alternative patterns of international cooperation in the contemporary world. (Also offered through distance education format.)

POLS*2000 Political Theory F (3-0) [0.50]
A study of the philosophic and ideological developments which have led to the emergence of the modern state and contemporary politics.

POLS*2100 The Art of Politics U (3-0) [0.50]
An examination of the presentation of politics in film, television, classical music, plays, novels, cartoons, painting and other media.

POLS*2200 Development and Underdevelopment F (3-0) [0.50]
An examination of the politics of development, distribution and conflict in Africa, Asia, the Middle East and the Americas from a comparative and international perspective.

POLS*2100 The State in Comparative Perspective W (3-0) [0.50]
An examination of the evolution, purposes, structures and functions of the state in relation to the economy and civil society.

POLS*2200 International Relations F (3-0) [0.50]
An introduction to basic theories and concepts in the study of international relations, including an analysis of power, national interest, security, survival, nationalism, sovereignty, decision-making, interdependence, integration, and transnationalism.

POLS*2250 Public Administration W (3-0) [0.50]
This course examines a variety of theoretical approaches to the study of organizations. It then applies these theories to the structure and operation of the government of Canada. It examines the changing role of bureaucracy in government and critically evaluates issues such as financial and administrative responsibility and accountability. (Also offered through distance education format.)
Prerequisite(s): POLS*1400 for students registered in Criminal Justice and Public Policy and B. Comm. (Public Management)

POLS*2300 Canadian Government F,W (3-0) [0.50]
Parliamentary government and federal-provincial relations lie at the heart of the Canadian government system. This course provides a detailed examination of the structure, functions, and performance of these central institutions of Canadian government in a comparative context. (Also available through distance education format.)

POLS*3000 Politics of Africa U (3-0) [0.50]
Africa in the 20th Century has been the scene of rapid political and economic change. This course analyzes African politics in the light of contemporary problems of development and modernization.
Prerequisite(s): POLS*2080 or POLS*2100

POLS*3021 History of Political Thought F (3-0) [0.50]
First part of the two-semester course POLS*3021/2. Refer to POLS*3021/2 for course description.
Prerequisite(s): POLS*2000

POLS*3021/2 History of Political Thought F-W [1.00]
A study of selected writers in the history of political thought from antiquity to the beginning of the twentieth century. This is a two-semester course offered over consecutive semesters. When you select it you must select POLS*3021 in the Fall semester and POLS*3022 in the Winter semester. A grade will not be assigned to POLS*3021 until POLS*3022 has been completed. (Offered in alternate years.)
Prerequisite(s): POLS*2000

POLS*3022 History of Political Thought W (3-0) [0.50]
Second part of the two-semester course POLS*3021/2. Refer to POLS*3021/2 for course description.
Prerequisite(s): POLS*3021

POLS*3050 Canadian Political Parties, Elections and Pressure Groups W (3-0) [0.50]
The course emphasizes political process rather than governmental structures. Topics to be explored include the role of political parties, pressure groups, the electoral system and voting and their impact on the nature of Canada as a democratic state.
Prerequisite(s): POLS*2300

POLS*3060 Politics of the Middle East and North Africa U (3-0) [0.50]
Students will examine the political dynamics of selected states and societies (e.g. Egypt, Syria, Saudi Arabia, Iran, Israel, Jordan and Algeria) in the Middle East and North Africa (MENA). Issues to be covered: the impact of early Middle Eastern/North African history upon today's politics; class structures in the MENA countries and their impact on politics; the rise of Arab nationalism; Zionism; the politics of oil; the status of women; the political impact of economic restructuring; Islamic movements; state-building; and political liberalization and democratization in the Middle East and North Africa.
Prerequisite(s): POLS*2080 or POLS*2100

POLS*3070 The Politics of Asian Development F (3-0) [0.50]
This course explores the political dynamics that have led to the massive variation of wealth, inequality, deprivation and poverty found in Asia. The focus is comparative, and will emphasize three geographically distinct regions: Northeast Asia, Southeast Asia and South Asia.
Prerequisite(s): POLS*2080 or POLS*2100

POLS*3080 Politics of Latin America U (3-0) [0.50]
An exploration of Latin American politics from a multidimensional perspective. It analyzes the interaction among contemporary political structures, ideologies and processes in the context of socio-economic change.
Prerequisite(s): POLS*2080 or POLS*2100

POLS*3110 Politics of Ontario U (3-0) [0.50]
This course provides an overview of the political history of Ontario, the character and development of the political parties and institutions, as well as an intensive examination of selected policy issues in contemporary Ontario politics.
Prerequisite(s): 7.50 credits

POLS*3130 Law, Politics, and Judicial Process U (3-0) [0.50]
This course explores the study of the judicial system as a branch of government and highlights the interaction between the judiciary, law, the political process and public policy. Issues such as judicial selection and Charter of Rights decisions by courts will be explored. Comparisons with the judicial process in other countries will supplement the focus on the Canadian judicial process.
Prerequisite(s): 1 of POLS*1400, POLS*2250, POLS*2300

POLS*3160 Women and Politics in the Third World U (3-0) [0.50]
The purpose of this course is twofold: 1) to examine Western analyses and assumptions concerning women and politics in the Third World; and 2) to examine how women's activities in the Third World challenge our definitions and understanding of power, political participation, and empowerment.
Prerequisite(s): POLS*2080 or POLS*2100

POLS*3180 Political Inquiry and Analysis F (3-0) [0.50]
Social scientists say a great many things about politics, the economy and society, but how can their claims to knowledge be evaluated? In this course the student will be introduced to a critical examination of the kinds of knowledge offered by contemporary political science, and will in the process come to a greater awareness of the methods lying behind his/her own work.
Prerequisite(s): 7.50 credits
XII. Course Descriptions, Political Science

POL*3200 Canadian Provincial Politics U (3-0) [0.50]
This course compares the political institutions, cultures and economies of the Canadian provinces, as well as the contemporary forces exerting pressure on provincial governments. Through comparison of key policy issues like healthcare and environmental policies it explores how provincial governments and institutions affect our opportunities to participate in politics, our identities and our policy challenges and outcomes.
Prerequisite(s): POLS*2250 or POLS*2300

POL*3210 The Constitution and Canadian Federalism W (3-0) [0.50]
Canada's constitution and its federal system lie at the heart of the ongoing crisis facing the Canadian Confederation. This course examines the major features of our constitutional development, how the current system is intergovernmental relations has evolved, and the challenges posed by Canada's cultural diversity, pressures for decentralisation, and the maintenance of national sovereignty.
Prerequisite(s): POLS*2300

POL*3250 Public Policy: Challenges and Prospects F (3-0) [0.50]
This course covers the dominant theories that explain the origins and character of public policy in Canada, and other countries. The focus will be on both governmental and nongovernmental actors.
Prerequisite(s): POLS*1400 or POLS*2250

POL*3270 Local Government in Ontario U (3-0) [0.50]
Municipal governments are major spenders of public funds in Canada, and are also the level of government closest to the people. In this course, students will examine the major problems confronting urban government in Ontario.
Prerequisite(s): 7.50 credits

POL*3280 Modern Political Ideologies F (3-0) [0.50]
An examination of contemporary political ideologies-liberalism and conservatism and imperialism; socialism, communism and fascism - in terms of their evolution and current political significance.
Prerequisite(s): 5.00 credits

POL*3300 Governing Criminal Justice U (3-0) [0.50]
The course provides an overview of the policy process and outcomes of the Canadian criminal justice system. Particular emphasis is placed on examining, using various public policy and public management perspectives, the practices and interactions of governmental agencies within the system, such as police agencies and boards, departments of Justice, Solicitor-General, corrections and parole agencies, courts and the legal profession.
Prerequisite(s): POLS*2250 or POLS*2300

POL*3330 Politics and Trade Liberalization in the Americas U (3-0) [0.50]
This course examines the politics of trade in the three NAFTA countries - Canada, the US and Mexico. It examines how trade policy is made in each country and how the NAFTA has influenced domestic politics. Topics covered include trade in goods and services, investment and intellectual property.
Prerequisite(s): 1 of POLS*2100, POLS*2250, POLS*2300

POL*3370 Environmental Policy Formation and Administration S,F (3-0) [0.50]
This course surveys both the federal and provincial governmental policies and programs relating to the management of natural resources and the control of pollution by examining the political, legal and administrative mechanisms, monitoring, surveillance, and enforcement problems. (Also offered through distance education format.)
Prerequisite(s): 7.50 credits

POL*3390 Comparative Democratic Institutions U (3-0) [0.50]
This course will analyse power in democratic political institutions. It will include an examination of executive and legislative powers and the role of political parties and elections in the exercise of these powers. Presidential and parliamentary systems are examined as well as models of majoritarian and consensual democracy.
Prerequisite(s): POLS*2100 or POLS*2300

POL*3410 Politics and Government in the United States U (3-0) [0.50]
This course involves a treatment of the basic principles and institutions of national government and politics in the United States as well as the making and execution of public policy at the national and state levels. LINK
Prerequisite(s): POLS*2100
Equates: POLS*2400

POL*3440 Corruption, Scandal and Political Ethics U (3-0) [0.50]
This course will introduce students to the phenomenon of political corruption and the study of its incidence. Attention will be paid to historical examples, contemporary scandals, and analytical articles, dealing with the nature, causes and effects, and proposed cures of political corruption, and the ethical dilemmas inherent in political life.
Prerequisite(s): 5.00 credits

POL*3450 European Governments and Politics U (3-0) [0.50]
Europe has forged a new form of political organization, the European Union, in addition to its variety of national democratic forms. This course offers a comparative examination of selected national governments, as well as an exploration of this new supranational organization.
Prerequisite(s): 1 of POLS*2100, POLS*2200, EURO*2070

POL*3460 Communism and Post-Communism U (3-0) [0.50]
This course focuses on selected issues in the transition from Communism to Post-Communism, viewed in a country, regional or theoretical context. Topics include the rise and demise of the Soviet Union, the new political economic and social structures which are emerging among successor states and in Central and East Europe, as well as their relationship with the world at large. LINK
Prerequisite(s): 1 of HIST*2390, POLS*2100, POLS*2200

POL*3470 Business-Government Relations in Canada U (3-0) [0.50]
The public and private sectors in Canada have become more and more interrelated in recent years as evidenced by tax and expenditure policies, the role of regulation and public enterprise, and the increasing emphasis on consultation and co-ordination. This course examines the evolving relationship between governments and the private sector in Canada, including business (both large and small), organized labour, specific sectors such as agriculture and consumer affairs and voluntary organizations.
Prerequisite(s): POLS*1400 or POLS*2250

POL*3560 The Systematic Study of Politics W (3-1) [0.50]
A treatment of empirical methods and techniques in political science, with an emphasis elementary and associational statistics. This course will enable students to confront with a trained, critical eye, the quantitative information and analysis that increasingly characterizes the discipline.
Prerequisite(s): 7.50 credits
Equates: POLS*2630
Restriction(s): Registration in Criminal Justice & Public Policy or Political Science (major, minor or area of concentration) or International Development (major only).

POL*3670 Comparative Public Policy and Administration W (3-0) [0.50]
This course examines the role of the bureaucracy in national development in various economic, social and political environments. The focus of the course is the interplay between bureaucracy, democracy and development in a comparative perspective.
Prerequisite(s): 1 of ISS*2010, POLS*2080, POLS*2100, POLS*2250

POL*3710 Politics and Sexuality U (3-0) [0.50]
Sexuality is treated as a subject for political theory from a number of critical and interdisciplinary perspectives. The course examines the relationship between sexuality and politics by analyzing the dynamics of power in the context of sexuality.
Prerequisite(s): POLS*2000 or PHIL*2060

POL*3730 The Americas U (3-0) [0.50]
Despite varying political systems and different historical experiences, the Americas are cohering more and more as a political, economic and social unit. This course will examine evolving political systems and processes in Canada, the United States, Latin America and the Caribbean from a comparative and theoretical perspective. Special emphasis will be placed on hemispheric and regional issues.
Prerequisite(s): POLS*2080 or POLS*2100

POL*3790 The Political Economy of International Relations W (3-0) [0.50]
This course examines major features of the contemporary international political economy, treating major theories and concepts within this approach to international relations (hegemony, globalization, interdependence, world systems theory, etc.) and focusing on the operation of key international institutions and regimes (i.e. communications, trade and transport policy).
Prerequisite(s): 1 of ISS*2010, POLS*2080, POLS*2100, POLS*2200

POL*3890 Government and Politics of India W (3-0) [0.50]
The course is designed to provide a survey of the history, society, culture, politics, government, bureaucracy and foreign relations of India.
Prerequisite(s): 1 of POLS*2080, POLS*2100, POLS*2200

POL*3920 Modern China F (3-0) [0.50]
This course is a detailed study of the political history of modern China and its current political significance.
Prerequisite(s): 1 of ISS*2010, POLS*2080, POLS*2100, POLS*2200

POL*3950 European Governments and Politics F (3-0) [0.50]
POL'S*3930 Politics of the Agri-Food System U (3-0) [0.50]

Although the production and distribution of food is usually not primarily a function of government, in the 20th century government has been significantly involved in these areas. Questions about the proper role and scope of government involvement have been subject to constant debate, and the extent of this involvement has varied greatly depending on time and place. This course looks at how the state deals with the agricultural sector in different countries. (Offered after distance education format.)

Prerequisite(s): POL'S*1400, POL'S*2250 or a comparable background in a related discipline

POL'S*3940 Accountability and Canadian Government U (3-0) [0.50]

This course examines the role of accountability within the Canadian government. With an emphasis on fiscal policy at the federal level, the course uses an investigative framework to trace the linkages from policies and decisions to outcomes, and explores the factors that inhibit or facilitate the assignment of responsibility in a complex modern democracy. The roles of various actors (corporations, citizens, lobbyists, bureaucrats, politicians) within Canadian politics are explored, as are such issues as fiscal accountability, government spending, social programming, and economic dependency. (This is a multi-media course requiring on-line access to Netscape 4.0 or equivalent, as well as a video cassette recorder and television.) (Offered after distance education format only.)

Prerequisite(s): 5.00 credits

POL'S*3960 Selected Topics in Political Science S,F,W (3-0) [0.50]

Readings and research in selected areas of the discipline not covered by regular course offerings. Students present a proposal and seek approval from a member of the department in the semester previous to enrolment in this course. The method of course presentation, emphasis, and evaluation are at the discretion of the instructor.

Prerequisite(s): 1.50 credits at the 3000 level in Political Science or equivalent

Restriction(s): Instructor consent required.

POL'S*4030 Contemporary Political Theory U (3-0) [0.50]

An analysis of selected theories and political issues discussed by prominent 20th-Century thinkers. These contemporary works will be examined as part of the long tradition of political discourse dating back to the classical period.

Prerequisite(s): POL'S*2000 and at least 1.00 credits at the 3000 level in Political Theory and Analysis

POL'S*4100 Women, Justice and Public Policy U (3-0) [0.50]

This course will use gender-based analysis in examining a series of justice and public policy issues affecting the lives of women, including equality rights, pay and employment equity, domestic violence, sexual assault, family policy, health care policy, and pornography. How do current policies that developed out of neoliberalism influence the lives of women in different ways than men? How can/should they be changed to recognize the different life experiences of women as distinguished from men? The primary focus of the topics covered in this course will be Canadian, although the experiences in other countries will be covered, particularly as it relates to "best practices," where appropriate.

Prerequisite(s): 2 of POL'S*2250, POL'S*2300, POL'S*3250 and 1.00 credits in Public Policy and Administration or Canada and the Americas

POL'S*4200 Civil Rights and Civil Liberties in Canada and the U.S. F (3-0) [0.50]

The course examines changing conceptions of civil liberties and rights over time in Canada and the U.S., mechanisms for their protection and promotion, and what happens when civil liberties and rights clash with one another. In particular, the course will focus on civil rights and civil liberties decisions by the Supreme Courts in both countries. This focus will include seeking explanations for why and how the decisions were made by the Courts and what impact the decisions have had on public policy and society.

Prerequisite(s): POL'S*3130 or POL'S*3210 and at least 1.00 credits at the 3000 level in Public Policy and Administration

POL'S*4210 Canada in the Twenty-First Century W (3-0) [0.50]

An in-depth examination of selected issues concerning Canadian political institutions and process.

Prerequisite(s): POL'S*2300 and 1.00 credits at the 3000 level in Canada and the Americas

POL'S*4200 Studies in International Relations/Political Economy U (3-0) [0.50]

Studies of state and non-state behavior in the international system, including such matters as international institutions and regimes, the international and domestic politics of a particular country or region or the impact of globalization. Variations in course content will reflect the interests of the particular instructor.

Prerequisite(s): 1 of POL'S*2200, POL'S*2100, POL'S*2080; and at least 1.00 credits at the 3000 level in Comparative/International Development

POL'S*4250 Problems in Public Administration and Public Policy W (3-0) [0.50]

An analysis of financial and personnel management problems in government, with particular reference to federal governmental practices or to particular public policy issues.

Prerequisite(s): POL'S*2250 and 1.00 credits at the 3000 level in Public Policy and Administration or Canada and the Americas

POL'S*4260 Topics in Public Policy U (3-0) [0.50]

This course will examine various public policy issues such as social policy or health care policy in a Canadian or comparative context.

Prerequisite(s): (2 of POL'S*2250, POL'S*2300, POL'S*3250), (1.00 credits in Public Policy and Administration or Canada and the Americas)

POL'S*4300 Human Rights, Ethics, and Development W (3-0) [0.50]

This course is intended to address the ethical issues that arise from development processes and studies by focusing on human rights. The subject is explored from a range of philosophical, religious, and cultural perspectives, including both Western and non-Western. Related themes include global and social justice; nationalism, cosmopolitanism, and multiculturalism.

Prerequisite(s): POL'S*2000 and 1.00 credits in Political Theory or Comparative/International Development

Restriction(s): POL'S*3120

POL'S*4750 Theories and Problems in Comparative/International Politics U (3-0) [0.50]

A study of selected theories and problems in comparative politics and government, including such matters as the role of bureaucracy in development, comparative transitions to a market economy or changing trends in Anglo-American democracies. Variations in the course will reflect the interests of the particular instructor.

Prerequisite(s): (1 of POL'S*2080, POL'S*2100, POL'S*2200) and 1.00 credits at the 3000 level in Comparative/International Development

POL'S*4930 Selected Topics in Political Science II S,F,W (3-0) [0.50]

Readings and research in selected areas of the discipline not covered by regular course offerings. Students present a proposal and seek approval from a member of the department in the semester previous to enrolment in this course. The method of course presentation, emphasis, and evaluation are at the discretion of the instructor.

Prerequisite(s): 1.50 credits at the 3000 level in Political Science or equivalent

Restriction(s): Instructor consent required.

POL'S*4970 Honours Political Science Research I S,F,W (3-0) [0.50]

This is Part I of the Honours Essay. Students complete the necessary reading and research for their Honours Essay under the supervision of a department advisor. A research proposal is expected by the end of the semester. Political science majors who wish to pursue an Honours thesis must register in this course in their 7th semester. Student selection of an approved subject area and instructor must be completed in the semester previous to enrolment in this course.

Prerequisite(s): 70% average in all POLS courses. Recommendation: Students with less than a 75% average are advised not to take this course.

Restriction(s): Instructor consent required.

POL'S*4980 Honours Political Science Research II S,F,W (3-0) [0.50]

This is Part II of the Honours Essay. Students organize and write their essays under the supervision of their advisor. Major honours political science students must register in this course in their 8th semester.

Prerequisite(s): POL'S*4970

Restriction(s): Instructor consent required.
### Population Medicine

**POPM*3240 Epidemiology F (3-0) [0.50]**

The course examines the basic concepts of health and disease in populations. Methods used in descriptive and analytic epidemiological studies, including the design, analysis and interpretation of results for observational studies and field trials are presented.

*Prerequisite(s):* BIOL*1040, STAT*2040

**POPM*4040 Epidemiology of Food-borne Diseases F (3-0) [0.50]**

This course examines the epidemiology and prevention of foodborne infections and intoxications, including those of both microbiological and chemical origin. Drawing on outbreak investigations, surveys, risk assessments, government surveillance systems and basic research, the biological, ecological, socio-economic and public health context of these diseases will be discussed.

*Prerequisite(s):* 1 of FOOD*3230, POPM*3240, instructor consent

*Restriction(s):* FOOD*4210

**POPM*4230 Animal Health F (3-0) [0.50]**

A consideration of the common and exotic diseases of domestic animals (especially dairy cattle), their cause and recognition, and the preventive measures which may be applied to reduce losses. Methods of monitoring health and productivity in herds (particularly dairy) will be emphasized. Management practices which are associated with improved health and productivity will be discussed. Problem-based teaching methodologies will be employed to focus discussion on the quantification of the impact of management practices on health and biological efficiency. (Offered in even-numbered years.)

*Prerequisite(s):* 1 of ANSC*2340, ANSC*3400, ANSC*3410
Psychology

Department of Psychology.

Students wishing to take a 2000, 3000 or 4000 level course without having completed the appropriate prerequisites must receive permission of the instructor who will determine whether the student has the required background for the course. Students in all psychology courses will be encouraged to participate in the on-going research of the department.

Honours Courses: courses marked (H) are designed for students in a psychology honours program, the Information Systems and Human Behaviour program, the Developmental Psychology Minor program, the Educational Psychology Minor program, the Organizational Behaviour Minor program, the Social Psychology program, the Cognitive Neuropsychology Minor program, or Human Resources Management major of the Bachelor of Commerce program. Students in other programs wishing to take these courses must obtain the permission of the instructors concerned. Unless otherwise specified, all other courses may be taken by general, honours, and students from other programs, providing the prerequisites are met. Courses designated with (H) are Honours level courses requiring for registration a cumulative average of at least 70% in all course attempts in Psychology, or registration in either the HRM Major or ISHB Major.

Psychology Core: courses marked (C) are Psychology core courses. Students registered in psychology programs are advised to complete at least 2.00 credits of the psychology core at the 2000 level prior to attempting any 3000 level psychology credit other than PSYC*3320, PSYC*3370, and PSYC*3380.

For courses without semester designations, please check with the department. The remaining courses will normally be offered as indicated. Advance schedules are available in the department.

PSYC*1100 Principles of Behaviour S,F,W (3-0) [0.50]

Experimental methods for the study of behaviour. The physiological basis of behaviour, sensory processes and perception. Motivation, learning and memory. (Also offered through distance education format.)

PSYC*1200 Dynamics of Behaviour S,F,W (3-0) [0.50]

Experimental methods for psychological research. Human development, intelligence, thinking and language; personality and behaviour pathology; social psychology. (Also offered through distance education format.)

PSYC*2010 Quantification in Psychology S,F,W (3-0) [0.50]

An introduction to psychological measurement and to statistical principles in psychological research. The course emphasizes descriptive statistics and introduces concepts and techniques of hypothesis testing. Cannot be taken for credit by students with credit in a 2000 level or above course in statistics. (Also offered through distance education format.)

Prerequisite(s): PSYC*1100 or PSYC*1200

PSYC*2310 Introduction to Social Psychology S,F,W (3-0) [0.50]

The content and research methods of social psychology will be explored in lectures and seminars. Content includes social perception, attraction, group dynamics, leadership, conflict and cooperation, attitude change, aggression and conformity. (Also offered through distance education format.)

Prerequisite(s): PSYC*1200

PSYC*2330 Principles of Learning F,W (2-2) [0.50]

An introduction to the basic principles and concepts of classical and instrumental conditioning paradigms of learning, via lectures, demonstrations and student projects. Some student projects may involve laboratory practice on animal conditioning. (C)

Prerequisite(s): PSYC*1100, PSYC*1200

PSYC*2360 Introductory Research Methods S,F,W (2-2) [0.50]

The application of scientific method in psychological experiments with laboratory demonstration.

Prerequisite(s): PSYC*1100, PSYC*1200, (PSYC*2010 or STAT*2040)

PSYC*2390 Principles of Sensation and Perception F,W (2-2) [0.50]

The course objective is to consider the processes of sensory inputs and perception. Approaches ranging from psychophysiology and cognitive psychology to physiology and anatomy will be used. In considering the psychology of sensation and perception, some of the anatomical and physiological aspects of selected senses will be covered in detail and the roles of experience, organization of inputs, and theories of perception are discussed. Topics to be emphasized will vary with the instructor, but may include ontogenetic development, learning, and modification of inputs and their perception. Students will participate in laboratory demonstrations and experiments. (Also offered through distance education format.)

Prerequisite(s): PSYC*1100

PSYC*2410 Behavioural Neuroscience F,W (2-2) [0.50]

A general introduction to the structure and function of the nervous system. The physiological basis of sensory (input) systems and the motor (output) system are examined as are central physiological bases of processes such as arousal and emotion. Laboratory demonstrations and exercises may be included. (C)

Prerequisite(s): PSYC*1100

PSYC*2450 Introduction to Developmental Psychology F,W (3-0) [0.50]

An introduction to and an analysis of the major theories of developmental psychology. Emphasis will be placed on the processes of development in the child including physical growth, perception, cognition, personality and interactions with the social environment. The application of developmental psychology to educational and social issues will be discussed. (Also offered through distance education format.)

Prerequisite(s): PSYC*1100, PSYC*1200

PSYC*2560 Cognitive Psychology F,W (2-2) [0.50]

An introduction to cognitive processes, including topics in the areas of attention, memory, language and reasoning. Students will be exposed to and participate in laboratory demonstrations and experiments. (Also offered through distance education format.)

Prerequisite(s): PSYC*1100

PSYC*2740 Personality S,F,W (3-0) [0.50]

A review of the theory, assessment procedures and research findings pertinent to major personality constructs. Personality research, methodology and design will also be covered. (Also offered through distance education format.)

Prerequisite(s): PSYC*1100, PSYC*1200

PSYC*3010 Compensation Systems W (3-0) [0.50]

This course focuses on how organizations attract, retain, and motivate employees through formal and informal reward mechanisms. Topics include: developing pay structures, job analysis, job evaluation, pay systems, pay system administration, equity issues, and benefits. (Offered through distance education format only.)

Prerequisite(s): PSYC*2310

Restriction(s): Students must have 70% average in Psychology courses to register or be enrolled in the B.Comm-HRM Major.

PSYC*3020 Psychology of Law U (3-0) [0.50]

An examination of psychological methods, findings and theories in the study of law. Topics will include the fallibility of the eyewitness; juror decisional processes; credibility of witnesses and attorneys; socialization into legal systems, police behaviour, etc. (Also offered through distance education format.)

Prerequisite(s): PSYC*2310 (also see psychology core statement)

PSYC*3030 Neurochemical Basis of Behaviour U (3-0) [0.50]

An analysis of how drugs act on various neurochemical systems to regulate motivation and behaviour. Topics of discussion may include psychopharmacology and its treatment.

Prerequisite(s): PSYC*1100, (BIOM*3090 or PSYC*2410) (also see psychology core statement)

PSYC*3040 Current Issues in Neuropsychology U (3-0) [0.50]

Major areas of applied brain research and clinical aspects of brain function will be covered. Emphasis will be given to the analysis of psychological deficits following brain damage and to selected aspects of intellectual disabilities.

Prerequisite(s): PSYC*1100, PSYC*2410 (also see psychology core statement)

PSYC*3060 Occupational Health Psychology F,W,S (3-0) [0.50]

The relationship between work, employment and both psychological and physical well-being. The promotion of workplace health through public policy and workplace intervention. (Also offered through distance education format.)

Prerequisite(s): PSYC*2310 (also see psychology core statement).

PSYC*3070 Psychology in Human Resource Management U (3-0) [0.50]

This course explores the application of psychological theory and measurement in human resource management. A dual perspective is taken: that of the worker impacted by these practices and that of the manager responsible for implementing them. Specific topics include recruitment, personnel selection, performance management, training, and executive assessment, development, and succession. (Also offered through distance education format.)

Prerequisite(s): PSYC*1200, PSYC*2310 (also see psychology core statement).

Restriction(s): HTM*3000
XII. Course Descriptions, Psychology

**PSYC*3080 Organizational Psychology U (3-0) [0.50]**
An examination of current theories and practices in organizational psychology. Selected topics may include motivation, turnover, absenteeism, leadership, job design, work attitudes, organizational justice, and organizational development and change. (Also offered through distance education format.)

Prerequisite(s): PSYC*2310 (also see psychology core statement).

Restriction(s): ITIM*2200

**PSYC*3390 Training and Development F (3-0) [0.50]**
This course focuses on how organizations develop employee skills through training and development programs. Topics will include: adult learning principles, training needs assessments, training program design, instructional methodologies, coaching and mentoring, individualized development and program evaluation. (Offered through distance education only.) (H)

Prerequisite(s): PSYC*2310

Restriction(s): Students must have 70% average in Psychology courses to register or be enrolled in the BCOMM-HRM Major.

**PSYC*3100 Evolutionary Psychology U (3-0) [0.50]**
Evolutionary Psychology (EP) offers a Darwinian frame of reference for studying questions about human nature. After reviewing basic material on genetics and natural selection, we will examine and criticize the contribution of EP to the understanding of the various aspects of individual and social behaviour, such as altruism, logic, mate selection, health, morality, aesthetics, and the role of culture.

**PSYC*3110 Topics in Health Psychology U (3-0) [0.50]**
This survey course will cover a range of topics within a specific area of Health Psychology. The focal area of the course will depend on who is teaching the course but may include: Women's Health (e.g. depression, stress and aging), Child Health (e.g. eating disorders, chronic illness), and Public and Community Health (e.g. topics such as injury prevention, health promotion). The particular focus of the course will be announced prior to the course selection period.

Prerequisite(s): PSYC*2310, PSYC*2450 (also see psychology core statement)

**PSYC*3220 Ergonomics: the Scientific Study of People-System Relationships S (3-0) [0.50]**
This course provides a broad survey of the field of ergonomics from the perspective of psychology. Topics to be covered include: human-system concepts and models, safety, accidents, and human error, human perceptual capabilities, human-machine interfaces, engineering anthropometry, workplace design and evaluation methods, measuring the environment. The course will draw widely on web-based materials and require students to complete a number of interactive demonstrations and lab exercises. Students will be expected to draw upon their own workplace experiences and to actively apply the course material to practical workplace situations. (Offered through distance education only.)

Prerequisite(s): PSYC*2650, PSYC*2450

**PSYC*3250 Psychological Measurement U (3-0) [0.50]**
An introduction to the theory of psychological measurement and measurement procedures presently used in psychology. Coverage will include such topics as reliability, validity, test construction; and the measurement of ability, personality, attitudes, interest and achievement. (Also offered through distance education format.) (H)

Prerequisite(s): PSYC*2010 (also see psychology core statement)

**PSYC*3280 Minds, Brains & Machines F (3-0) [0.50]**
This course will introduce the student to basic issues in cognitive science from philosophical and psychological perspectives. Connectionism, Turing Machines, artificial intelligence, and alternative naturalistic models of the mind will be among the topics explored.

Prerequisite(s): 1.50 credits in Psychology or 1.50 credits in Philosophy

**PSYC*3300 The Psychology of Gender U (3-0) [0.50]**
This course will examine the theories and psychological research that deals with the impact of gender upon people's lives and behaviour. Topics will include gender-role socialization and stereotypes; gender-related status and power differentials; and gender differences and dynamics in the physiological, intrapsychic, interpersonal, and socio-cultural domains.

Prerequisite(s): PSYC*1200 and at least 1.00 credits of the psychology core (also see psychology core statement)

**PSYC*3310 Applied Social Psychology U (3-0) [0.50]**
A number of applied issues will be examined from a social psychological perspective. These may include aggression, prejudice, helping, mental illness, crime and addiction. The format will consist of reading, discussion and research/field projects.

Prerequisite(s): PSYC*2310 (also see psychology core statement)

**PSYC*3320 Statistical Principles in Psychological Research F,W (2-2) [0.50]**
The course emphasizes inferential tests applied to psychological research. Topics will include: t-tests, analysis of variance, multiple correlation and regression and selected topics in non-parametric statistics. Laboratory sessions will cover statistical application exercises in psychological research. (H)

Prerequisite(s): PSYC*2010 or STAT*2040

**PSYC*3330 Memory U (3-1) [0.50]**
An examination of theoretical and empirical studies of the psychological nature of the acquisition, storage and retrieval of information. Students will be exposed to and participate in laboratory demonstrations and experiments.

Prerequisite(s): PSYC*2650 (also see psychology core statement)

**PSYC*3340 Psycholinguistics U (3-1) [0.50]**
An introduction to the conceptions of the structure of language as they relate to processes underlying the acquisition, production, perception and understanding of speech, and to empirical studies that bear on these conceptions. Students will be exposed to and participate in laboratory demonstrations and experiments. (Also offered through distance education format.)

Prerequisite(s): PSYC*2650 (also see psychology core statement)

**PSYC*3370 Experimental Design and Analysis F (2-2) [0.50]**
This course is intended for students planning to complete PSYC*4870 and PSYC*4880 in preparation for graduate studies in Psychology. This course emphasizes (1) the model comparison approach to analysis of variance and (2) effective scientific communication. Issues related to design choice, power, multiple-comparisons and categorical data analysis will be reviewed. Laboratory exercises will include SPSS applications and research projects. (H)

Prerequisite(s): PSYC*2360, (PSYC*3320 or STAT*2050)

Restriction(s): PSYC*3371/2. A minimum grade point average of 75% in Psychology courses or instructor consent.

**PSYC*3380 Non-experimental Research Methods W (2-2) [0.50]**
This course is intended for students planning to complete PSYC*4870 and PSYC*4880 in preparation for graduate studies in Psychology. This course addresses issues related to the internal and external validity of quasi-experimental, correlation and other non-experimental research methods. In addition, issues concerning survey sampling and the development and refinement of survey questions are discussed. Laboratory components will include SPSS applications, research projects and style of effective scientific communication. (H)

Prerequisite(s): PSYC*2360, (PSYC*3320 or STAT*2050)

Restriction(s): PSYC*3371/2. A minimum grade point average of 75% in Psychology courses or instructor consent.

**PSYC*3390 Abnormal Psychology U (3-0) [0.50]**
Current theory and research in the field of abnormal psychology will be examined in terms of various models (biological, behavioral, social and psychodynamic). Selected topics may include: stress and anxiety, affective disorders, schizophrenia, psychophysiological and personality disorders, and mental health. (Also offered through distance education format.)

Prerequisite(s): PSYC*2740 (also see psychology core statement)

**PSYC*3410 Behavioural Neuroscience II U (2-2) [0.50]**
This course will focus on contemporary research and theory related to such selected topics as physiological correlates of memory, learning, motivation, emotion, stress, sensory and motor functions. Both the central and peripheral components of the nervous system will be examined in relation to the above. Laboratory demonstrations, exercises and projects may be included.

Prerequisite(s): PSYC*2410 (also see psychology core statement)

**PSYC*3430 Topics in Animal Learning and Cognition U (3-0) [0.50]**
The study of current research in animal cognition, emphasizing such topics as numerical, spatial and logical competence, conceptual abilities, and memory. Seminar presentation and discussion will assume a basic knowledge of operant and Pavlovian conditioning as taught in PSYC*2330.

Prerequisite(s): PSYC*2330 (also see psychology core statement)

**PSYC*3440 Cognitive Development U (3-0) [0.50]**
An examination of theory and research pertaining to children's intellectual development. Topics include children's learning and the development of perception, memory, thinking and language.

Prerequisite(s): FRHD*2270 or PSYC*2450 (also see psychology core statement)
PSYC*3450 Social and Personality Development U (3-0) [0.50]
An examination of research, methodological issues and theories concerning personality-social development. Topics may include temperament, imitation, parent-child interaction, and the development of attachments, sex-roles, morality, aggression and pro-social behaviour.
Prerequisite(s): FRHD*2270 or PSYC*2450 (also see psychology core statement)

PSYC*3460 Abnormal Development U (3-0) [0.50]
Theory, research and aspects of current practice concerning abnormal psychological development in childhood and adolescence.
Prerequisite(s): PSYC*3440 or PSYC*3450 (also see psychology core statement)

PSYC*3480 Psychology of Sport U (3-0) [0.50]
An examination of individual and group behaviour in physical activities and sports. Emphasis will be placed on understanding psychological concepts which are pertinent to sports, e.g., motivation, social and personality development, cognition, leadership and group dynamics.
Prerequisite(s): PSYC*1100, PSYC*1200, (PSYC*2310 or PSYC*2740) (also see psychology core statement)

PSYC*3500 Social Interactions U (3-0) [0.50]
The course concentrates on social interactions in dyads and small groups. Selected topics will be examined through reading, discussion and student projects. Topics may include: the structure and sequence of conversation, self-disclosure, miscommunication, and nonverbal communication. (H)
Prerequisite(s): PSYC*2310 (also see psychology core statement)

PSYC*3520 Political Psychology U (3-0) [0.50]
A social psychological examination of collective behaviours, social movements and social (policy) change, emphasizing the development and impact of mass media and relationships with individual, collective and political violence.
Prerequisite(s): PSYC*2310 (also see psychology core statement)

PSYC*3570 The Psychology of Death and Dying U (3-0) [0.50]
An examination of theory, research, and issues in the psychology of death and dying. Emphasis is upon the cognitive operations used to process information about death and the influence of death constructs in daily life. Topics include the development of death concepts throughout the life-span, death anxiety in society, the needs of the dying person, the psychology of grieving, and unexpected losses such as deaths by suicide or miscarriage. (Offered through distance education format only.)
Prerequisite(s): 1 of PSYC*2310, PSYC*2740, PSYC*2450, work experience in related fields, instructor consent (also see psychology core statement)

PSYC*3660 Contemporary Psychology U (3-0) [0.50]
Some current developments in psychology. Topics will vary with the interests of faculty members assigned to the course and will be announced prior to the course selection period.
Prerequisite(s): previous study related to the topic area (also see psychology core statement)

PSYC*3680 Selected Topics in Psychology U (3-0) [0.50]
This course will highlight current and topical issues in psychology. Topics will vary with the interests of faculty members assigned to the course and will be announced prior to the course selection period.
Prerequisite(s): previous study related to the topic area (also see psychology core statement)
Restriction(s): Instructor consent required.

PSYC*3690 Community Mental Health U (3-0) [0.50]
An introduction to the principles and practices of community mental health and community psychology. The course deals with the application of public health concepts to the field of mental health, the epidemiology of mental disorder in the community, the design and evaluation of preventive programs for populations at risk of illness, and the creation of alternatives to institutional treatment of the mentally ill. Several field visits to community mental health programs will be arranged. This course should be of special interest to students who are planning to pursue careers in such human service fields as social work and occupational therapy.
Prerequisite(s): PSYC*2310 (also see psychology core statement)

PSYC*3710 Psychology of Learning Difficulties and Disabilities I F (3-0) [0.50]
An examination of current theories regarding learning difficulties and disabilities in educational settings. Emphasis will be placed on cognitive, social and motivational factors associated with learning problems and on behavioral and educational remedial approaches.
Prerequisite(s): 1 of FRHD*2270, PSYC*2450, PSYC*2650 (also see psychology core statement)

PSYC*3720 Psychology of Learning Difficulties and Disabilities II W (3-0) [0.50]
Continuation of PSYC*3710. Students will develop and report on a systematic remedial project involving an underachieving school-age child.
Prerequisite(s): PSYC*3710 (also see psychology core statement)

PSYC*3800 Psychology and Education U (3-0) [0.50]
The application of psychological principles and techniques to the study of the educational process. (Also offered through distance education format.)
Prerequisite(s): PSYC*1100, (PSYC*1200 or FRHD*2270) (also see psychology core statement)

PSYC*3850 Intellectual Disabilities U (3-0) [0.50]
This course covers applied and theoretical aspects of intellectual disabilities, and lays a foundation for work in the area of intellectual disabilities. (Also offered through distance education format.)
Prerequisite(s): FRHD*2270 or PSYC*2450 (also see psychology core statement)

PSYC*3900 Psychology Research Internship F,W,S (0-6) [0.50]
This course provides an experiential learning opportunity through the active participation of the student in a faculty member's ongoing research program. It is expected that students will develop a broader appreciation of the relationship between knowledge, theory and research while acquiring basic skills in research methodologies and modes of inquiry. The course will require involvement in both the practice and reporting of research. The student must consult the supervisory faculty member before selecting or registering for the course.
Prerequisite(s): PSYC*1100, PSYC*1200, PSYC*2010 and at least 1.00 credits at the 2000 level of the psychology core
Restriction(s): Instructor consent required.

PSYC*3910 Psychology Externship F,W,S (0-6) [0.50]
An independent program of study formally integrating the student's academic study with one or more work experiences, to be decided by the student in consultation with the supervisory faculty (normally the department's co-op coordinator) prior to registration in the course. In order to qualify for this course, the student must be employed in a work setting at the time of registration to help ensure that a suitable project is feasible in the context of a work placement or employment. The department is not responsible for obtaining employment. The course project is aimed at making a significant contribution to the work setting. The student must consult with the supervisory faculty before selecting or registering for the course. (Enrolment is limited. Not open to co-op students.)
Prerequisite(s): PSYC*1100, PSYC*1200, PSYC*2010 and at least 1.00 credits at the 2000 level of the psychology core) or enrolment in the B.Comm Program, Human Resources Management Major
Restriction(s): Instructor consent required.

PSYC*4100 Applied Research in Human Resources Management F (3-0) [0.50]
This course provides students with the opportunity to conduct hands-on research in an organization on issues that relate to Human Resource Management. Students will work in groups and be expected to find organizations for their research project. Although students will be primarily accountable for finding their organizations to work with, instructor support will be provided to assist students if difficulties arise. The instructor will also serve as a resource throughout the project. Lecture topics include: understanding organizational issues, understanding the consulting process (e.g. engagement, communication, ethics), project planning, data collection methods in an applied context (e.g. sampling, confidentiality, practical constraints), and report writing. (H)
Prerequisite(s): FHIL*2600, PSYC*2360, (HTM*3000 or PSYC*3070), (HTM*2200 or PSYC*3080)

PSYC*4310 Advanced Topics in Social Psychology U (3-0) [0.50]
An in-depth examination of specific advances in social psychological research, theory, and/or applications. Specific topics, to be announced prior to course selection, will vary according to the interests of the instructor of the course. (H)
Prerequisite(s): PSYC*3310 or PSYC*3500 (also see psychology core statement)

PSYC*4320 Advanced Applied Social Psychology F (3-0) [0.50]
A seminar course dealing with topics of an applied social nature. This course may focus on a single or a variety of topics such as: health, forensics, conflict (inter-group and interpersonal), social justice and cultural issues. This course addresses both research and practice issues and covers a variety of theories and methodologies. (H)
Prerequisite(s): PSYC*3310 or PSYC*3500
XII. Course Descriptions, Psychology

**PSYC*4370 History of Psychology U (3-0) [0.50]**

The historical roots of modern psychology. Students electing to major by completing the Honours Thesis Courses I and II should note that they are expected to also take either PSYC*4900, or this course, prior to, or concurrent with, either PSYC*4870 or PSYC*4880 (see Graduate Advisory Note under Major). (H)  
Prerequisite(s): PSYC*2360, (PSYC*3440 or PSYC*3450)

**PSYC*4440 Contemporary Issues in Child Development U (2-2) [0.50]**

This course is primarily designed for students in the Psychology program whose special interests are developmental. Students will examine theoretical and methodological issues in a specific area of developmental psychology. The course will involve detailed evaluation of selected studies and when appropriate, student research projects. (H)  
Prerequisite(s): 4.00 credits in psychology, with at least 1.00 credits at the 3000 level or above  
Restrictions: Instructor consent required.

**PSYC*4500 Current Theoretical Issues in Psychology S,F,W (3-0) [0.50]**

An independent program of study in topics of current theoretical import in psychology, to be decided by the student in consultation with the supervisory faculty member before the student may select or register for the course. (H)  
Prerequisite(s): 4.00 credits in psychology, with at least 1.00 credits at the 3000 level or above  
Restrictions: Instructor consent required.

**PSYC*4510 Current Issues in Psychology S,F,W (0-6) [0.50]**

The study of issues of current interests in psychology. Topics will vary with the interests of faculty members assigned to the course and will be announced prior to the course selection period. The course is available either as a senior lecture/seminar course with regularly scheduled class times, or as an independent study course with the topic and schedule decided in advance by the student in conjunction with a supervisory faculty member. (H)  
Prerequisite(s): 4.00 credits in psychology, with at least 1.00 credits at the 3000 level or above and previous study related to the topic area (also see psychology core statement)  
Restrictions: Instructor consent required.

**PSYC*4600 Cognitive Neuroscience U (3-0) [0.50]**

This course will focus on methods used in contemporary cognitive neuroscience (including but not limited to: PET, functional MRI, EEG, intracranial stimulation and recording) as they aid in the elucidation of neural basis of behaviour. (H)  
Prerequisite(s): PSYC*2360, (1 of PSYC*2390, PSYC*2410, PSYC*2650), (also see psychology core statement)  
Restriction(s): PSYC*4400

**PSYC*4750 Motivation U (3-0) [0.50]**

This course examines the topics of motivation and emotion from various disciplinary perspectives, adopting a senior seminar format and problem-centred approach. (H)  
Prerequisite(s): 15.0 credits

**PSYC*4760 Seminar in Personality and Individual Differences U (3-0) [0.50]**

A course in personality and individual differences intended primarily for honours students in psychology. Emphasis will be placed on a critical analysis of current controversies in the area as well as an in-depth examination of specific advances in the field. Specific topics, to be announced prior to course selection, will vary according to the interests of the instructor of the course. (H)  
Prerequisite(s): PSYC*2740, PSYC*3250

**PSYC*4870 Honours Thesis I F (3-0) [0.50]**

Under individual faculty supervision, students plan, develop, and write a research proposal and prepare an extensive review paper on their area of research. Group sessions are held on research ethics, subject protocols and computer data handling techniques. This course will be graded on a Pass/Fail basis. Note that enrolment in this course is limited and academic records are used for student selection. Course registration requires the signature of the Chair of the department's Undergraduate Affairs and Curriculum Committee (UACC). This UACC signature is contingent upon the student demonstrating they have obtained a Thesis Supervisor's signature on the department's Thesis Registration Form and have an academic standing appropriate for application to graduate programs (see Graduate Advisory under Major). As well, registration for Honours Thesis I will require that either PSYC*4370 or PSYC*4900 is taken prior to, or concurrent with, either PSYC*4870 or PSYC*4880. (H)  
Prerequisite(s): [(PSYC*3370, PSYC*3380), or PSYC*3371/2], 70% average across (PSYC*2010 or STAT*2040), (PSYC*3320 or STAT*2050)  
Restriction(s): Instructor consent required.

**PSYC*4880 Honours Thesis II W (2-10) [1.00]**

A continuation of PSYC*4870. Students conduct research and write an undergraduate thesis under the direction of a faculty member. This course is intended for students in the honours program. Note that registration in this course will require that either PSYC*4370 or PSYC*4900 is taken prior to, or concurrent with, either PSYC*4870 or PSYC*4880. (H)  
Prerequisite(s): PSYC*4870, 70% average across (PSYC*2010 or STAT*2040), (PSYC*3320 or STAT*2050), (PSYC*3370, PSYC*3380) or PSYC*3371/2  
Restriction(s): PSYC*4881/2

**PSYC*4900 Psychology Seminar U (3-0) [0.50]**

Student seminars and discussions will be organized around theoretical and substantive issues in the discipline of psychology. A major objective is to assist advanced undergraduate students to achieve a degree of synthesis of materials studied in their previous psychology courses (also see psychology core statement). Students electing to Major by completing the Honours Thesis I and II should note that they are expected to also take either PSYC*4370, or this course, prior to, or concurrent with, either PSYC*4870 or PSYC*4880 (see Graduate Advisory under Major). (H)  
Prerequisite(s): 14.00 credits in psychology, with at least 1.00 credits at the 3000 level or above  
Restriction(s): Registration in a Psychology Major of an Honours program.

**PSYC*4910 Co-operative Education Project I S,F,W (0-6) [0.50]**

An independent program of study formally integrating the student's academic study with 1 or more work experiences provided by the co-operative education program, to be decided by the student in consultation with the supervisory faculty. The course is normally to be taken concurrently with a co-operative education work term, with the project preferably aimed at making a significant contribution to the work setting. (H)  
Prerequisite(s): 2 co-operative education work terms  
Restriction(s): Instructor consent required.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Prerequisite(s)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>REXT*2000</td>
<td>Introduction to Rural Extension F (3-0) [0.50]</td>
<td>Introduction to Rural Extension including history and philosophy; learning and motivation; the rural setting; adoption/technology transfer processes; marketing; planning; extension teaching/communication methods and technology; evaluation; extension agencies and programs.</td>
<td>10.00 credits</td>
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</tr>
<tr>
<td>REXT*3000</td>
<td>Program Development and Evaluation W (3-0) [0.50]</td>
<td>Concepts and processes of program development and evaluation of rural extension programs. Programs designed with client involvement, situational analysis and priority setting will receive particular attention. (Offered in odd-numbered years.)</td>
<td>10.00 credits</td>
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<tr>
<td>REXT*3040</td>
<td>Communication Process S,W (3-0) [0.50]</td>
<td>Introduction to the study of the communication process, with emphasis on the examination of symbols, meaning, patterns of miscommunication and their correctives. (Offered through distance education format only.)</td>
<td>10.00 credits</td>
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<tr>
<td>REXT*3050</td>
<td>Agricultural Communication I F (3-0) [0.50]</td>
<td>Practical and effective ways of communicating information to a broad audience via the media, focusing mainly on print media (newspapers and magazines) and agricultural media. Strong emphasis on writing and preparing ready-to-use material and strategies for getting it published. (Students will develop an understanding of the news/communications business and find where they can fit into it or use it to their advantage to get a job. Contact with professionals will be a major part of the course).</td>
<td>10.00 credits</td>
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</tr>
<tr>
<td>REXT*3060</td>
<td>International Communication W (3-0) [0.50]</td>
<td>An inquiry into the role of communication in global development. Emphasis is on the application of interpersonal, inter-cultural communication and the mass media in the development process.</td>
<td>10.00 credits</td>
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</tr>
<tr>
<td>REXT*3080</td>
<td>Technology in Extension S (3-0) [0.50]</td>
<td>An examination of the issues involved in using media in formal and non-formal teaching situations. The comparative characteristics of media will be examined. The &quot;system approach&quot; to the adoption of teaching strategies will be emphasized. The relationships between people and machines in education will be considered. (Offered through distance education format only.)</td>
<td>10.00 credits including 1 of CIS<em>1000, CIS</em>1200, equivalent</td>
<td></td>
</tr>
<tr>
<td>REXT*3100</td>
<td>Teaching and Learning in Non-Formal Education W (3-0) [0.50]</td>
<td>Learning principles, theories and practices in extension education. Emphasis is on non-formal teaching-learning situations. (Offered in even-numbered years.)</td>
<td>10.00 credits</td>
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</tr>
<tr>
<td>REXT*4020</td>
<td>Rural Extension in Change and Development F (3-0) [0.50]</td>
<td>The planning and management of development programs with emphasis on the role of non-formal education and counselling in influencing behavioral change and adoption of innovation. Case studies include cross cultural and international considerations.</td>
<td>10.00 credits</td>
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</tr>
<tr>
<td>REXT*4050</td>
<td>Agricultural Communication II W (3-0) [0.50]</td>
<td>Application of practical and effective writing and communication techniques, mainly through the production of print publications and the further development and application of journalistic writing and editing skills. Special emphasis on issues important to the agri-food industry.</td>
<td>REXT*3050 or equivalent</td>
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</tr>
<tr>
<td>REXT*4060</td>
<td>Agricultural Communication II W (3-0) [0.50]</td>
<td>Application of practical and effective writing and communication techniques, mainly through the production of print publications and the further development and application of journalistic writing and editing skills. Special emphasis on issues important to the agri-food industry.</td>
<td>Instructor consent required.</td>
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</tr>
<tr>
<td>REXT*4100</td>
<td>Leadership Development in Rural Organization U (3-0) [0.50]</td>
<td>The management of rural extension programs with emphasis on the functions and dimensions of leadership and the development of leadership in rural organizations.</td>
<td>10.00 credits</td>
<td></td>
</tr>
<tr>
<td>REXT*4180</td>
<td>Social Issues in Organic Agriculture W (2-2) [0.50]</td>
<td>This interdisciplinary course will build on SOIL<em>3030 and CROP</em>3130, Tutorials in Organic Agriculture I and II, to examine the major social issues in organic agriculture from both a global and local perspective, with an emphasis on synthesis and integration. Issues will include globalization, sustainability, gender, the commons, the debate between economics and the environment, the organic agri-food system, rural communities, the role of the family farm, land use and certification/regulation.</td>
<td>1 of AGR<em>3400, (CROP</em>3130, SOIL<em>3030), SOC</em>2080</td>
<td></td>
</tr>
</tbody>
</table>
Sociology

Department of Sociology and Anthropology.
The Department of Sociology and Anthropology offers three types of courses: sociology courses with the prefix SOC*; anthropology courses with the prefix ANTH*; and departmental courses with the prefix SOAN*.

Courses will normally be offered in the semesters designated. For information on other semesters these courses will be offered and the semesters those courses without designations will be offered, please check with the department. In addition to regularly scheduled courses, students may elect to do independent study. A student who wishes to do a reading course should first consult the professor with whom he/she wishes to work. Please note: a student is allowed a total of 1.00 credits only for reading courses.

Please note: The availability of third and fourth year seminar courses will vary. Students must check with the Department of Sociology and Anthropology to see when seminar courses are available.

XII. Course Descriptions, Sociology

SOC*1100 Sociology S,F,W (3-0) [0.50]
An introductory course dealing with the basic concepts and methods of sociology applied to societies, groups and individuals. Students will gain an understanding of basic social processes such as socialization, social exchange, deviance and conformity, social change and basic social institutions such as the economy, the polity, the family, religion, education. (In spring semester offered through distance education format only.)

SOC*1500 Crime and Criminal Justice F,W (3-0) [0.50]
This course will introduce students to the study of crime and criminal justice. It will examine the various criminological theories, types of criminal behaviour, and the criminal justice system.

SOC*2010 Canadian Society U (3-0) [0.50]
A description of the structure of Canadian society with its social, political and economic tensions.

SOC*2070 Social Deviance S,F,W (3-0) [0.50]
An introduction to some of the basic theories of deviance and social control and their application to selected social problems. (In spring semester offered through distance education format only.)

SOC*2080 Rural Sociology W (3-0) [0.50]
An introduction to the structure and processes of rural society. This course deals with diverse topics such as agrarian movements, the rise of the agro-industrial complex, the role of the state in agriculture, the question of community, and rural environmental issues. A comparative perspective is cultivated, although the primary emphasis is on Canadian society.

SOC*2090 Urban Sociology U (3-0) [0.50]
This course examines historical and contemporary dimensions of urban life. Specific topics may include: the geography and ecology of cities, urban cultures and lifestyles, stratification, housing, crime, demographic changes, economic and environmental issues, and global urbanization.

SOC*2190 Technology and Society W (3-0) [0.50]
This course offers a broad introduction to the social dimensions of science and technology and of emerging information technologies.

SOC*2280 Society and Environment U (3-0) [0.50]
An introduction to the nature and dimensions of the environmental crisis. The values, interests and social institutions (including governing and industry) that promote pollution or environmentalism will be considered. Issues to be examined may include global warming, nuclear energy, environmental toxins, species extinction and population growth pressures.

SOC*2300 Class and Stratification U (3-0) [0.50]
An examination of the persistent bases of social inequalities such as wealth, income, power and prestige including class formation, class consciousness, political activity and social mobility.

SOC*2660 Contemporary Native Peoples of Canada W (3-0) [0.50]
An analysis of the impact of Euro-Canadian society on native culture. Particular emphasis will be given to contemporary issues relating to Canadian native peoples (Indians, Inuit and Metis) such as education, treaties and reserves, land claims, government administration and economic development. (Offered in odd-numbered years.)

SOC*2700 Criminological Theory W (3-0) [0.50]
This course will examine the development of criminological theory from the late 1700s to contemporary times.

SOC*2750 Serial Murder W,S (3-0) [0.50]
This course examines the theoretical and empirical literature on serial murder. It reviews the popular image of serial murder and compares this image with that derived from scholarly investigation. Specific topics include the definition of serial murder, the methods used to detect serial murder, including profiling, and the creation of serial murder typologies. The course does not discuss individual serialists. The course examines how to understand and study serial murder in modern societies. (Offered through distance education format only.)

SOC*3040 Sociology of Social Welfare W (3-0) [0.50]
This course examines the major factors that shape the welfare state and considers what impact welfare policies have on people. Central to the discussion is welfare in Canada and what changes are desirable and feasible. (Offered in odd-numbered years.)

SOC*3110 Comparative Religious Systems W (3-0) [0.50]
An analysis of stability and change in patterns of religious beliefs, behaviour and institutions. (Offered in odd-numbered years.)

SOC*3130 Politics and Society U (3-0) [0.50]
An interpretation of the political process and its relationship to other aspects of the social structure, including such topics as political parties, movements, factions, citizen participation, power structures and the process of political exchange.

SOC*3310 Contemporary Theory F (3-0) [0.50]
This course outlines and evaluates the major theories in use today. A central aspect of the course is instruction in the application of these theories.

SOC*3330 Education, Change and Resistance U (3-0) [0.50]
An examination of educational institutions and their relationships to other sectors of society, in particular political and economic. Topics include the nature and objectives of education, equality of opportunity, measures of educational achievement and attainment, manifest and hidden curricula, and public policy.

SOC*3380 Society and Nature U (3-0) [0.50]
Classical to contemporary theories of the relations between society and the environment will be examined. These include Cartesian, Puritan, Utilitarian, laissez-faire liberal, Marxist, "deep ecologist" and eco-feminist approaches. Concepts to be explored are ecology, wilderness, growth, sustainability, species, domination, animal rights and stewardship.

SOC*3340 Individual and Society U (3-0) [0.50]
Examining social-psychology from the sociological perspective, this course deals with the relation between social and cultural structure, on the one hand, and self or personality on the other. Employing symbolic interactionism and affect control theory, the course shows how social interaction mediated by language is the well-spring of both social cognitions and emotions.

Last Revision: October 18, 2005

2005-2006 University of Guelph Undergraduate Calendar
SOC*3490 Law and Society W (3-0) [0.50]
This course examines the social basis of law. Specific topics include the law as an instrument of stability or change, and the role of law makers, law enforcers and interpreters, including the legal profession, the police, judges and courts.
Prerequisite(s): (SOAN*2111/2 or SOC*2700), SOAN*2120
Restriction(s): Priority Access course. Enrolment may be restricted to particular programs or specializations. Please see the departmental website.

SOC*3710 Young Offenders W (3-0) [0.50]
This course examines concerns about youth crime in Canada and elsewhere. It examines the history of legislation to control youth crime, criminal justice processing and practices, public reactions and concerns about youth crime and theoretical models used to explain youth crime.
Prerequisite(s): (SOAN*2111/2 or SOC*2700), SOAN*2120
Restriction(s): Registration in Anthropology, Criminal Justice & Public Policy or Sociology (major, minor or area of concentration).

SOC*3730 Courts and Society W (3-0) [0.50]
This course is an introduction to the social processes involved in the court, particularly the criminal court. Typical concerns will be the place of courts in society, public opinion and confidence in courts, purposes and principles of sentencing, sentencing reforms and disparities (e.g., across gender and race), the role of criminal records, juries, the roles of judges, and alternatives to criminal courts.
Prerequisite(s): (SOAN*2111/2 or SOC*2700), SOAN*2120
Restriction(s): Registration in Anthropology, Criminal Justice & Public Policy or Sociology (major, minor or area of concentration).

SOC*3740 Corrections and Penology F (3-0) [0.50]
This course will examine the current state of knowledge regarding the role of corrections and penology. It will examine such specific issues as public perception and reaction to the criminal justice system's methods of punishment and treatment of criminal offenders, the effectiveness of sentencing options and policies, including fines, probation, prison sentences and parole. It will also examine the various theoretical and methodological approaches to the study of corrections and penology.
Prerequisite(s): (SOAN*2111/2 or SOC*2700), SOAN*2120
Restriction(s): Registration in Anthropology, Criminal Justice & Public Policy or Sociology (major, minor or area of concentration).

SOC*3490 Law and Society W (3-0) [0.50]
This course examines the social basis of law. Specific topics include the law as an instrument of stability or change, and the role of law makers, law enforcers and interpreters, including the legal profession, the police, judges and courts.
Prerequisite(s): (SOAN*2111/2 or SOC*2700), SOAN*2120
Restriction(s): Priority Access course. Enrolment may be restricted to particular programs or specializations. Please see the departmental website.

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Prerequisite(s): (SOAN*2111/2 or SOC*2700), SOAN*2120
Restriction(s): Registration in Anthropology, Criminal Justice & Public Policy or Sociology (major, minor or area of concentration).

SOC*3730 Courts and Society W (3-0) [0.50]
This course is an introduction to the social processes involved in the court, particularly the criminal court. Typical concerns will be the place of courts in society, public opinion and confidence in courts, purposes and principles of sentencing, sentencing reforms and disparities (e.g., across gender and race), the role of criminal records, juries, the roles of judges, and alternatives to criminal courts.
Prerequisite(s): (SOAN*2111/2 or SOC*2700), SOAN*2120
Restriction(s): Registration in Anthropology, Criminal Justice & Public Policy or Sociology (major, minor or area of concentration).

SOC*4010 Violence and Society W (3-0) [0.50]
This course will focus on the changing nature of violence in our society by critically evaluating theory, research and public policy on the causes and control of violence. The links among structural, institutional and interpersonal violence will be examined as well as the social construction of violence, particularly why some forms of violence are considered to be more serious social problems than others.
Prerequisite(s): 15.00 credits including (SOC*2700 or SOC*3310), (SOAN*3120 or POLS*3650)
Restriction(s): Registration in Anthropology, Criminal Justice & Public Policy or Sociology majors.

SOC*4030 Advanced Topics in Criminology F (3-0) [0.50]
An in-depth study of selected issues in criminology.
Prerequisite(s): (2 of SOC*3490, SOC*3710, SOC*3730, SOC*3740, SOC*3750), (1 of ANTH*3690, SOC*2700, SOC*3310), (SOAN*3120 or POLS*3650)
Restriction(s): Registration in Criminal Justice & Public Policy (major, minor or area of concentration).

SOC*4200 Advanced Topics in Criminal Justice W (3-0) [0.50]
An in-depth study of issues in criminal justice.
Prerequisite(s): (2 of SOC*3490, SOC*3710, SOC*3730, SOC*3740, SOC*3750), (1 of ANTH*3690, SOC*2700, SOC*3310), (SOAN*3120 or POLS*3650)
Restriction(s): Registration in Criminal Justice & Public Policy (major, minor or area of concentration).

SOC*4210 Advanced Topics in Rural Sociology U (3-0) [0.50]
A critical examination of the research literature in rural sociology, both in industrial and industrializing societies.
Prerequisite(s): 12.50 credits including (SOAN*2120 or GEOG*2210), SOC*2080

SOC*4230 Comparative Sociology W (3-0) [0.50]
Societies and social institutions in cross-cultural perspectives. The focus of this course will vary but in every instance will explicitly involve cross-cultural comparisons. (Offered in even-numbered years.)
Prerequisite(s): 12.50 credits including SOAN*2120, SOC*2080

SOC*4290 Applied Sociology U (2-1) [0.50]
The application of sociological knowledge and research techniques to important policy issues in contemporary Canadian society.
Prerequisite(s): 12.50 credits including (ANTH*3690 or SOC*3310), SOAN*3070, SOAN*3120

SOC*4300 Theoretical and Methodological Issues W (3-0) [0.50]
This course will provide an opportunity for sociology majors to consider in detail the integration of theoretical and methodological issues at an advanced level. It is meant to engage students in the latest developments in a particular area of the discipline. Course topics will be announced and course outlines will be available at course selection time. This course is highly recommended to students who are considering graduate work in sociology.
Prerequisite(s): 15.00 credits including SOAN*3070, SOAN*3120, SOC*3310

SOC*4310 Advanced Topics in Canadian Society U (3-0) [0.50]
A detailed examination of selected topics in Canadian society such as regional tensions, aboriginal issues, implications of free trade, constitutional reform, social programs.
Prerequisite(s): 12.50 credits including (ANTH*3690 or SOC*3310), SOAN*3070, SOC*2010

SOC*4440 Seminar in Sociology F,W (3-0) [0.50]
This course will be offered as a structured seminar on various topics depending upon the interests of the faculty member teaching the course. Topics will be announced and course outlines will be available at course selection. The availability of third and fourth year seminar courses will vary. Students must check with the Department of Sociology and Anthropology to see when seminar courses are available.
Prerequisite(s): 12.50 credits including SOC*3310, SOAN*3070, SOAN*3120

SOC*4540 Seminar in Sociology F,W (3-0) [0.50]
This course will be offered as a structured seminar on various topics depending upon the interests of the faculty member teaching the course. Topics will be announced and course outlines will be available at course selection. The availability of third and fourth year seminar courses will vary. Students must check with the Department of Sociology and Anthropology to see when seminar courses are available.
Prerequisite(s): 12.50 credits including SOC*3310, SOAN*3070, SOAN*3120
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<tr>
<th>Course Code</th>
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<th>Prerequisite(s)</th>
<th>Restriction(s)</th>
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<tr>
<td>SOC*4640</td>
<td>Seminar in Sociology, F,W (3-0) [0.50]</td>
<td>12.50 credits including SOC<em>3310, SOAN</em>3070, SOAN*3120</td>
<td>has no restriction</td>
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<tr>
<td>SOC*4700</td>
<td>Seminar: Theoretical Issues in Sociology, U (3-0) [0.50]</td>
<td>12.50 credits including SOC<em>3310, SOAN</em>3070, SOAN*3120</td>
<td>has no restriction</td>
</tr>
<tr>
<td>SOC*4740</td>
<td>Seminar in Sociology, F,W (3-0) [0.50]</td>
<td>12.50 credits including SOC<em>3310, SOAN</em>3070, SOAN*3120</td>
<td>has no restriction</td>
</tr>
<tr>
<td>SOC*4840</td>
<td>Seminar in Sociology, F,W (3-0) [0.50]</td>
<td>12.50 credits including SOC<em>3310, SOAN</em>3070, SOAN*3120</td>
<td>has no restriction</td>
</tr>
<tr>
<td>SOC*4880</td>
<td>Special Projects in Sociology, S,F,W (3-0) [0.50]</td>
<td>12.50 credits</td>
<td>Instructor consent required. Please note, a student is allowed a total of 1.00 credits only for reading courses.</td>
</tr>
<tr>
<td>SOC*4890</td>
<td>Special Projects in Sociology, S,F,W (3-0) [0.50]</td>
<td>12.50 credits</td>
<td>Instructor consent required. Please note, a student is allowed a total of 1.00 credits only for reading courses.</td>
</tr>
<tr>
<td>SOC*4900</td>
<td>Honours Sociology Thesis I, S,F,W (3-0) [0.50]</td>
<td>15.00 credits including SOC<em>3310, SOAN</em>3070, SOAN<em>3120, CJPP students must have 15.00 credits including SOC</em>2700, SOAN<em>3120, or POLS</em>3650</td>
<td>Instructor consent required. A cumulative average of 70% in all Sociology and Anthropology courses.</td>
</tr>
<tr>
<td>SOC*4910</td>
<td>Honours Sociology Thesis II, S,F,W (3-0) [0.50]</td>
<td>SOC*4900</td>
<td>Instructor consent required.</td>
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</table>
Sociology and Anthropology

Department of Sociology and Anthropology.
The Department of Sociology and Anthropology offers three types of courses: sociology courses with the prefix SOC*; anthropology courses with the prefix ANTH*; and departmental courses with the prefix SOAN*.

SOAN*2040 Globalization of Work and Organizations F,W (3-0) [0.50]
This course examines the sociological dimensions of work and occupations. Specific topics may include: the organizational context of work, occupational and labour market structures, job satisfaction, industrial relations, technological change, and the effects of gender, age, race/ethnicity on how work and employment are experienced.
Prerequisite(s): ANTH*1150 or SOC*1100

SOAN*2111 Classical Theory F (3-0) [0.50]
First part of the two-semester course SOAN*2111/2. Refer to SOAN*2111/2 for course description.
Prerequisite(s): ANTH*1150 or SOC*1100

SOAN*2111/2 Classical Theory F-W (1.00)
This course places in context and critiques the major world views which have shaped sociology. Particular attention is paid to the theories of Marx, Durkheim and Weber. This is a two-semester course offered over consecutive semesters. When you select it you must select SOAN*2111 in the Fall semester and SOAN*2112 in the Winter semester. A grade will not be assigned to SOAN*2111 until SOAN*2112 has been completed.
Prerequisite(s): ANTH*1150 or SOC*1100

SOAN*2120 Introductory Methods F,W (3-0) [0.50]
A general introduction to the process of social research emphasizing research design, techniques of data collection, analysis and interpretation of research results.
Prerequisite(s): 1 of ANTH*1150, SOC*1100, SOC*1500

SOAN*2290 Identities and Cultural Diversity U (3-0) [0.50]
An examination of the interrelationships among Canadian ethnic, racial and linguistic groups including their locations in the Canadian mosaic.
Prerequisite(s): ANTH*1150 or SOC*1100

SOAN*2400 Introduction to Gender Systems S,F (3-0) [0.50]
An introduction to the examination of the characteristics of gender relationships both historically and cross-culturally. Amongst the emphases are theoretical approaches to gender analysis, methodologies, case studies and attention to themes such as class and stratification, race and ethnicity, identities and global restructuring as these shape gender dynamics. (In spring semester offered through distance education format only.)
Prerequisite(s): ANTH*1150 or SOC*1100

SOAN*3070 Qualitative and Observational Methods W (3-0) [0.50]
Non-quantitative techniques in social research including participant observation, unobtrusive methods, case studies and interviewing.
Prerequisite(s): SOAN*2120

SOAN*3100 Comparative Perspectives on Families and Households U (3-0) [0.50]
An exploration of how family relationships are shaped by the social context and social structure, and the theoretical frameworks used to study them. Topics may include historical development of the family, cross-cultural perspectives, family policy, household division of labour, abuse, divorce, parenthood, domestic ideology, sexuality, interracial families.
Prerequisite(s): 1 of ANTH*2160, SOAN*2111/2, SOAN*2400, (SOAN*2120 or equivalent or WMST*3000)
Restriction(s): FRHD*3120

SOAN*3120 Quantitative Methods F (3-1) [0.50]
This course introduces basic descriptive and inferential techniques used in quantitative social research. Students will acquire the skills needed to perform basic analyses and to read the research literature. They will also acquire skills in using a standard computer package to perform data analyses. Topics include: data organization, sample description, hypothesis testing and measures of association. Note: Students who have completed any other statistics course(s) should consult with the instructor. In some instances, SOC*3120 may be waived as a departmental requirement.
Prerequisite(s): SOAN*2120
Restriction(s): Priority Access course. Enrolment may be restricted to particular programs or specializations. See department for more information.

SOAN*3460 Ethnicity and Aging W (3-0) [0.50]
An examination of ethnic social structure, ethnicity, and aging. Variations in age related behaviour associated with ethnic groups in Canada will be viewed from a sociological and gerontological perspective. (Offered in odd-numbered years.)
Prerequisite(s): SOAN*2111/2, SOAN*2120, SOAN*2290

SOAN*3680 Development/Underdevelopment U (3-0) [0.50]
An examination of the process of social and economic development and underdevelopment, with special emphasis on the rural sector of countries in Africa, Latin America and Asia.
Prerequisite(s): 1 of ANTH*2160, IDEV*2010, SOC*2080
Restriction(s): ANTH*3680. Priority Access course. Enrolment may be restricted to particular programs or specializations. See department for more information.

SOAN*4220 Canadian Rural Women F (3-0) [0.50]
An examination of socio-cultural structures and processes affecting the positions and roles of rural women in Canada. Starting from an historical perspective, special emphasis will be given to the study of farm and native women, and changes in their familial, economic, social and political roles. (Offered in odd-numbered years.)
Prerequisite(s): 12.50 credits including (ANTH*2160 or SOC*2080), (SOAN*2120 or WMST*3000)

SOAN*4240 Women and the Development Process U (3-0) [0.50]
To increase students' understanding of the relation of socio-economic, political and cultural changes on the roles of women in "developing areas" and how women, in turn, affect socio-economic changes.
Prerequisite(s): 12.50 credits including (1 of ANTH*3400, IDEV*2010, SOAN*3680), (1 of SOAN*3070, SOAN*3120, WMST*3000)

SOAN*4320 Transition from School to Work W (3-0) [0.50]
This applied course examines the evolving research and models in the transitions from school to work area. There is an evolving literature in this area based, in part, on the successful application of research in the transition from high school to postsecondary education. This 'capstone' course also considers the practical issues involved in making such a move, considering the knowledge, skills, and values needed by university students to succeed in the modern workplace (public, private, and not-for-profit sectors) in Canada. Students will complete an "Action Sociology/Anthropology Project," as well as a "Skills Portfolio," and other work related to their own transition.
Restriction(s): Registration in Sociology, Anthropology or Criminal Justice & Public Policy majors in semester 7 or 8.

SOAN*4500 Community Development U (3-0) [0.50]
An analysis of approaches to community development defined as planned, change-directed action undertaken by individuals, groups and organizations. The course will include the examination of actual community development practices.
Prerequisite(s): (1 of ANTH*2160, IDEV*2010, SOC*2080), (GEOG*2210 or SOAN*2120)
Restriction(s): SOAN*3300
Department of Land Resource Science.

SOIL*2100 Introduction to Environmental Stewardship F (3-2) [0.50]
An introduction to the principles of soil science - the origin of soils, their classification and interpretation in natural and modified environments. Soil will be studied as a product of the natural environment, with a focus on formation processes and changes which occur when it is modified through use. A variety of uses including agriculture, forestry, recreation, and urban development will be considered. This course is not for B.Sc. (Agr.) students. (Also offered through distance education format.)

SOIL*2200 Environmental Issues in Agroecosystems W (3-3) [0.50]
This course provides an introduction to a range of specific environmental and resource issues in agriculture. Issues to be covered include geological resources, climate change, nutrient management, groundwater contamination, source water protection, land use planning, and natural resources management. In each case, the policy context for the issue is presented, as well as the science needed for understanding and preparation of management decisions. This course is designed to suit students in a variety of science programs including agriculture. (First offering Winter 2006.)
Prerequisite(s): 0.50 first year credits in each of Biology, Chemistry and Math.
Restriction(s): AGR*2301/2

SOIL*3070 Environmental Soil Physics F (3-3) [0.50]
Principles of land utilization and planning at the global, national, regional and local levels. Land characterization and classification using photo-interpretive techniques and computerized soil survey interpretive programs. Land capability/suitability for agriculture, forestry and engineering purposes. Emphasis on specific land use issues in Canada.
Prerequisite(s): 1 of AGR*2301/2, AGR*2320, GEOG*1300, GEO*1000, SOIL*2010

SOIL*3080 Soil and Water Conservation F (2-3) [0.50]
A lecture-demonstration course on the processes leading to deterioration of soil and water quality, the impact of deterioration on use, and preventative or corrective measures. Soil erosion by water and wind, soil compaction and salinization. Drainage channel maintenance, sedimentation and nutrient enrichment of water. Conservation programs and policies. Reclamation of severely disturbed soils and saline- sodic soils. Emphasis will be on concepts and solutions to problems in a systems approach. (Also offered through distance education format.)
Prerequisite(s): 1 of AGR*2301/2, AGR*2320, SOIL*2010

SOIL*3090 Problems in Land Resource Science S,F,W (0-6) [0.50]
Students will carry out a research project in an area of special interest. Individualized supervision will be provided by a faculty member. The preparation of an oral and/or written report will be required. Approval to take this course must be obtained from the Department Chair during the previous semester.
Prerequisite(s): 10.00 credits including AGR*2301/2 or SOIL*2010
Restriction(s): Priority Access course. Enrolment may be restricted to particular programs or specializations. See department for more information.

SOIL*3100 Resource Planning Techniques W (2-2) [0.50]
An intermediate techniques course directed at the application of a systematic approach to problem-solving in natural resource management. Major topics include procedures of ecological land classification, computer-assisted resource analysis and environmental impact assessment.
Prerequisite(s): SOIL*3050

SOIL*3170 Soil Processes in Landscape F (3-3) [0.50]
This course examines factors and processes that influence soil development, including the impact of human activities. Special attention is given to understanding the significance of soil properties and features, with emphasis on their spatial and temporal variability on local to global scales. Principles of soil classification are discussed and several classification systems are examined; emphasis is given to the Canadian System of Soil Classification. The roles of remote sensing, landform analysis, soil imaging (micropedology), digital image analysis, as well as geographic information systems, in quantifying soils and landscapes, are also presented. Field trips taken to observe specific soils and landscapes in southern Ontario; a fee is charged to help offset costs of this activity.
Prerequisite(s): 1 of AGR*2320, AGR*2301/2, SOIL*2010
Restriction(s): SOIL*4170

SOIL*3200 Environmental Soil Biology W (3-3) [0.50]
Soil biological processes involving both microflora and fauna with emphasis on waste management, soil fertility and structure, plant residue decomposition and xenobiotic compound biodegradation. Students will apply this knowledge in a project involving biodegradation of an organic waste.
Prerequisite(s): 10.00 credits including AGR*2301/2 or SOIL*2010

SOIL*3300 Land Resource Stewardship S (3-0) [0.50]
This course will examine 'stewardship' programs as an approach to environmental conservation in both the agricultural and natural resource conservation sectors in Canada. It will focus on the central role of private landowners, with emphasis on the voluntary policy perspective of stewardship programs in comparison to regulatory perspectives. As well, it will examine the non-government organizations such as land trusts and farm organizations that often run stewardship programs. Programs addressing environmental conservation issues in agriculture, forestry, fisheries, wildlife, habitat conservation, and species at risk will be considered. (Offered through distance education format only.) (First offering Summer 2005.)
Prerequisite(s): SOIL*2120 or SOIL*2200

SOIL*3600 Remote Sensing W (2-4) [0.50]
An introduction to remote sensing, as applied to the study and monitoring of the biophysical environment (atmosphere, vegetation, soil, hydrology, geology). Relevant conventional photographic techniques are examined, but current analogue and digital imaging technologies are emphasized. Attention is given to both airborne and earth-orbiting imaging platforms. Key aspects of computerized image analysis are covered. Practical experience is gained through the interpretation of high-resolution digital imagery, using industry-standard commercial software.
Prerequisite(s): 10.00 credits (recommend: 1 of GEOG*2420, AGR*2301/2, AGR*2320, SOIL*2010
Restriction(s): Priority Access course. Enrolment may be restricted to particular programs or specializations. See department for more information.

SOIL*4070 Soil Science W (4-0) [0.50]
Department Chair during the previous semester.
Prerequisite(s): Priority Access course. Enrolment may be restricted to particular programs or specializations. See department for more information.

SOIL*4090 Soil Management F (3-1) [0.50]
A lecture-tutorial course on the practical aspects of soil management for crop production as they relate to the physical, chemical and biological properties of soils; major emphasis is placed on soil fertility as related to field soil properties and fertilizer, lime and manure use, soil and plant testing for mineral nutrients. The beneficial aspects of drainage, irrigation, erosion control and related tillage practices on soil fertility are also presented. Due regard is given to both economic and environmental aspects of soil management practices.
Prerequisite(s): 1 of AGR*2301/2, AGR*2320, SOIL*2010
SOIL*4110 Natural Resources Management Field Camp F (0-6) [0.50]
A course directed toward investigating methods of collecting and processing land resource field data. Practice in mapping information from air photographs and ground surveys, construction of inventory maps and integration of information. The course will consist of a one week field camp prior to the fall semester, following which the students, working in groups, will prepare and present a comprehensive report in consultation with faculty. Students will be responsible for their living and transportation expenses for the field session, in addition to regular tuition fees. The course may be offered with different emphasis in content depending on student demand. Students are required to notify the designated departmental instructor of their intention to participate in the Field Camp during the previous Winter semester (or earlier if going on exchange programs).
Prerequisite(s): SOIL*3100
Restriction(s): Registration in B.Sc.Env.NRM and B.Sc.Agr.AGMN students.

SOIL*4160 Design of Organic Production Systems F (2-3) [0.50]
This interdisciplinary course calls upon students to use the analytical framework developed in Tutorials in Organic Agriculture I and II to apply organic principles to managed agroecosystems. The course covers the interactions of soils, plants, microbes, and animals with management and environmental factors related to annual and perennial crops and livestock. The core principle of problem avoidance rather than problem solving is illustrated with practical examples from such dimensions as integration of crop and livestock agriculture, farm-scale nutrient budgeting, permaculture, and herd health in the production of organic field crops (grains and oilseeds), horticultural crops (fruit and vegetables), and livestock (beef, sheep, dairy, pigs, chickens). (First offering Fall 2006.)
Prerequisite(s): (1 of AGR*2350, CROP*4220, SOIL*3170) or (CROP*3130, SOIL*3030)

SOIL*4210 Earth and Atmospheric Science Field Camp F (1-3) [0.50]
A course restricted to students in the Earth and Atmospheric Science major giving experience in collecting and processing field data. A complete environmental impact assessment including geology and soil classification, topographical survey using GPS, air photo and satellite image analysis, identification of plant species, and measurement of soil hydrologic properties. The course will consist of a one week field camp prior to the fall semester, following which the students, working in groups, will prepare and present a comprehensive environmental impact assessment. The field camp will be held within an easy daily driving distance to Guelph. Students are required to notify the designated departmental instructor of their intention to participate in this course during the previous winter semester (or earlier if going on exchange programs).
Prerequisite(s): 3 of GEOL*3060, GEOL*3190, SOIL*3060, SOIL*3070, SOIL*3200, SOIL*4170
Restriction(s): SOIL*4110
# Spanish Studies

## School of Languages and Literatures.

Except where stated otherwise, all courses are conducted in Spanish (reading, writing, and speaking), and literary texts are, at all levels, studied in the original language.

### XII. Course Descriptions, Spanish Studies

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Prerequisite(s)</th>
<th>Restriction(s)</th>
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</thead>
<tbody>
<tr>
<td>SPAN*1100</td>
<td>Introductory Spanish F,W (3-1) [0.50]</td>
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<td></td>
<td>A course providing the basics of spoken and written Spanish for students with no previous studies in the language.</td>
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<tr>
<td>SPAN*1110</td>
<td>Intermediate Spanish F,W (3-1) [0.50]</td>
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<td>SPAN*1100</td>
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<td></td>
<td>A continuation of SPAN*1100 with emphasis on oral work.</td>
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<tr>
<td>SPAN*2000</td>
<td>Spanish Language I F (3-1) [0.50]</td>
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<td></td>
<td>A course designed to develop facility in reading, writing, understanding and speaking Spanish. Conversation, grammar and language laboratory practice.</td>
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<td></td>
<td>Prerequisite(s): OAC Spanish or SPAN*1110 (or equivalent)</td>
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<tr>
<td>SPAN*2010</td>
<td>Spanish Language II W (3-1) [0.50]</td>
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<td>A continuation of SPAN*2000.</td>
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<td>Prerequisite(s): SPAN*2000</td>
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<tr>
<td>SPAN*2040</td>
<td>Spanish Civilization F (3-0) [0.50]</td>
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<td></td>
<td>An examination of the historical and cultural events that provided the background for the development of modern Spain, as well as a visual survey of Spanish culture.</td>
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<td></td>
<td>Prerequisite(s): SPAN*1110 or permission of the instructor</td>
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<tr>
<td>SPAN*2990</td>
<td>Introduction to Hispanic Literary Studies W (3-0) [0.50]</td>
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<td></td>
<td>An introduction to literary studies in Spanish. The course focuses on critical terminology and methods through a selection of prose, poetry and drama from Spain and Spanish America.</td>
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<td>Prerequisite(s): SPAN*1110 or permission of the instructor</td>
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<tr>
<td>SPAN*3080</td>
<td>Spanish American Culture W (3-0) [0.50]</td>
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<td></td>
<td>A survey through selected readings, class discussion and audio-visual materials of the Spanish American countries, their histories, society, institutions and culture.</td>
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<td>Prerequisite(s): SPAN*1110</td>
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<tr>
<td>SPAN*3110</td>
<td>Spanish Literature F (3-0) [0.50]</td>
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<td>This course will study the works of prominent 20th-century poets in the context of the artistic environment of Europe as reflected in the theatre, art and film of the first two decades of the 20th century. Focus will be on poets including: Garcia Lorca, Vicente Aleixandre, Gerardo Diego; painters Salvador Dalí and Pablo Picasso, and film director Luis Buñuel. (Offered in even-numbered years.)</td>
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<td>Prerequisite(s): SPAN*2990 or instructor consent</td>
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<tr>
<td>SPAN*3120</td>
<td>Post-Civil War Literature and Film W (3-0) [0.50]</td>
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<td>This course examines contemporary Spanish Literature and film from a socio-political perspective. It will focus on the following topics: the impact on narrative and theatre of socio-cultural upheavals in the aftermath of the civil war; the role in the aesthetics of both film and literature of the Franco dictatorship and censorship in particular; the importance of post-Franco liberalization on women's creative work. (Offered in odd-numbered years.)</td>
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<td>Prerequisite(s): SPAN*2990 or instructor consent</td>
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<tr>
<td>SPAN*3130</td>
<td>Women in Modern Spanish Fiction W (3-0) [0.50]</td>
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<td></td>
<td>A study of the representation of women in Spanish literature through the analysis and interpretation of Spanish 19th-century novels. (Offered in even-numbered years.)</td>
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<td>Prerequisite(s): SPAN*2990 or instructor consent</td>
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<tr>
<td>SPAN*3160</td>
<td>Contemporary Latin American Fiction W (3-0) [0.50]</td>
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<td>This course will examine, in English, why and how the leading figures, such as Borges, Cortazar, Garcia Marquez, Carpentier, Isabel Allende, and Luisa Valenzuela have &quot;made&quot; history, not only in the way they have recreated the Latin American historical reality, but also in the way they have reformed the Hispanic literature. Two lectures per week in English and one seminar per week in Spanish. Final essay and examination will be in English, short presentations and compositions will be in Spanish. (Offered in odd-numbered years.)</td>
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<td>HUMAN*3160</td>
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<td>Restriction(s): HUMAN*3160</td>
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<tr>
<td>SPAN*3170</td>
<td>Women, Virtue and Honour in Spanish Drama F (3-0) [0.50]</td>
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<td>This is a topic-oriented course which will study, in English, major Spanish dramas: seventeenth-century works such as Lope de Vega's Fuenteovejuna, Calderon's Life is a Dream, Tirso de Molina's Don Juan, and twentieth-century plays such as Garcia Lorca's The House of Bernarda Alba and Blood Wedding. In addition to the thematic focus, these texts will be studied for their artistic merit and for the specificity of the Spanish &quot;comedia&quot;. Where appropriate, this course will also discuss the influence of Spanish themes on the European culture. Texts and examinations will be in English, but selected readings and assignments will be in Spanish. Students who select the course under the listing of HUMAN*3170 will do assignments in English. (Offered in even-numbered years.)</td>
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<td>Prerequisite(s): SPAN<em>2010 or SPAN</em>2990</td>
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<tr>
<td>SPAN*3180</td>
<td>Cuento/Journalism Spanish American W (3-0) [0.50]</td>
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<td>Most Latin American writers started their careers as journalists, and short stories by Jorge Luis Borges, Julio Cortázár, Gabriel García Márquez, Elena Poniatowska, Luisa Valenzuela, and Isabel Allende were published in daily newspapers. One of the results of the close link between journalism and fiction is a deep sense of social responsibility in modern non-representational literature. This course will study twentieth-century Latin American short stories for their artistic merits, and for their other links to journalistic discourse. (Offered in even-numbered years.)</td>
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<td>Prerequisite(s): SPAN<em>2010 or SPAN</em>2990</td>
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<tr>
<td>SPAN*3300</td>
<td>Modern Spanish American Prose F (3-0) [0.50]</td>
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<td>A study, through selected texts, of the most important aspects of Spanish American Prose up to 1940. Authors studied may include Maria Luisa Bombal, Horacio Quiroga, Jorge Icaza, Romulo Gallegos and Ricardo Guiraldes. The course will emphasize themes such as rural life, the role of native peoples, and changing attitudes to concepts such as national identity, urbanization and literary technique. (Offered in odd-numbered years.)</td>
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<tr>
<td>SPAN*3310</td>
<td>The Modern Spanish American Short Story and Poetry F (3-0) [0.50]</td>
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<td>A study of the modern Spanish American short story and an examination of the evolution of poetry among the leading Modernist and post-Modernist poets. (Offered in even-numbered years.)</td>
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<td>Prerequisite(s): SPAN*2990 or permission of the instructor</td>
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<tr>
<td>SPAN*3500</td>
<td>Spanish Grammar and Composition I F (3-1) [0.50]</td>
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<td></td>
<td>Án advanced language course that focuses on the refinement of students' written and verbal communication skills in Spanish.</td>
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<td>Prerequisite(s): SPAN*2010</td>
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<tr>
<td>SPAN*3530</td>
<td>Business Spanish W (3-0) [0.50]</td>
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<td>A detailed study of the Spanish language as it is currently used in administration and business. It will cover areas such as administrative correspondence, reports, employment, business communication and advertising.</td>
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<td>Prerequisite(s): SPAN*3500</td>
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<tr>
<td>SPAN*3580</td>
<td>Directed Readings in Spanish Studies U (3-0) [0.50]</td>
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<td></td>
<td>A reading course in Spanish or Spanish American literature designed according to the previous studies and the interests of the individual student. Normally, students will not be permitted to take more than two courses in the Directed Readings sequence.</td>
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<td>Prerequisite(s): 1.00 credits in Spanish literature at the 3000 level</td>
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<td>SPAN*3810</td>
<td>Directed Readings in Spanish Studies U (3-0) [0.50]</td>
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<td>A reading course in Spanish or Spanish American literature designed according to the previous studies and the interests of the individual student. Normally, students will not be permitted to take more than two courses in the Directed Readings sequence.</td>
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<td>Prerequisite(s): 1.00 credits in Spanish literature at the 3000 level</td>
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<tr>
<td>SPAN*3820</td>
<td>Directed Readings in Spanish Studies U (3-0) [0.50]</td>
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<td></td>
<td>A reading course in Spanish or Spanish American literature designed according to the previous studies and the interests of the individual student. Normally, students will not be permitted to take more than two courses in the Directed Readings sequence.</td>
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<td>Prerequisite(s): 1.00 credits in Spanish literature at the 3000 level</td>
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<td>SPAN*3850</td>
<td>Revolutionary Poetry and Poetic Revolution in Spanish America F (3-0) [0.50]</td>
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<td>This course studies the poetry that has emerged from revolutionary movements in Cuba, Nicaragua, Chile and elsewhere, situating this poetry in the context of the search for new poetic forms. (Offered in even-numbered years.)</td>
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<td>Prerequisite(s): SPAN*2990 or instructor consent</td>
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<tr>
<td><strong>SPAN*4170 Don Quixote and the Picaresque Novel F (3-0) [0.50]</strong></td>
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<tr>
<td>This course will study, in English, the importance of this Spanish masterpiece in the development of the modern European novel, and it will examine the first European picaresque work, Lazarillo de Tormes, in the light of the picaresque tradition which followed in Europe and the Americas. The course will also concentrate on the notion of play and laughter (Bakhtin) as means of survival. Texts and examinations will be in English, but selected readings and assignments will be in Spanish. Students who select the course under the listing of HUMN*4170 will do assignments in English. (Offered in odd-numbered years.)</td>
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<thead>
<tr>
<th><strong>SPAN*4500 Spanish Translation and Composition I F (3-0) [0.50]</strong></th>
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<tbody>
<tr>
<td>An advanced composition course, with intensive written and oral practice with an emphasis on translation.</td>
</tr>
<tr>
<td><strong>Prerequisite(s):</strong> SPAN*3530</td>
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<thead>
<tr>
<th><strong>SPAN*4520 Spanish Translation and Composition II W (3-0) [0.50]</strong></th>
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</thead>
<tbody>
<tr>
<td>A continuation of the work done in SPAN*4500, developing creative oral and written expression with an emphasis on translation.</td>
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<tr>
<td><strong>Prerequisite(s):</strong> SPAN*4500</td>
</tr>
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<tr>
<th><strong>SPAN*4840 Research Paper in Spanish Studies U (3-0) [0.50]</strong></th>
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</thead>
<tbody>
<tr>
<td>A research paper in Spanish on any language or literature subject approved by the department. This paper will be the equivalent of a semester course.</td>
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</tbody>
</table>
## Statistics

**Department of Mathematics and Statistics.**

**Suggested initial course sequences:**

1. For students interested in applied statistics a minimal course sequence is: (STAT*2040 or STAT*2100), STAT*2050, STAT*3210, STAT*3240, STAT*3320.
2. Credit may be obtained in only 1 of STAT*2050 or STAT*2090 and only 1 of STAT*2040, STAT*2060, STAT*2080, STAT*2100, STAT*2120.
3. Graduate students may be admitted to later parts of a sequence by permission of the department.
4. Students who major or minor in Statistics may not receive credit for the following courses unless taken to satisfy the requirements of another program: ECON*2740, PSYC*2010, PSYC*3320, STAT*2080, STAT*2100.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Prerequisites</th>
<th>Restrictions</th>
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</thead>
<tbody>
<tr>
<td>STAT*2090</td>
<td>Introductory Applied Statistics II</td>
<td>W (3-2) [0.50]</td>
<td>STAT<em>1000, STAT</em>2040, STAT<em>2060, STAT</em>2080, STAT<em>2100, STAT</em>2120</td>
<td>1 of 4U Advanced Functions and Calculus, OAC calculus, equivalent</td>
</tr>
<tr>
<td>STAT*2060</td>
<td>Statistics for Business Decisions</td>
<td>W (3-2) [0.50]</td>
<td>STAT<em>2050, STAT</em>2250</td>
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<tr>
<td>STAT*2050</td>
<td>Statistics II S,F,W</td>
<td>(3-2) [0.50]</td>
<td>The methods of STAT*2040 are extended to the multi-sample cases. Methods include: simple and multiple regression analysis including ANOVA and lack-of-fit; experimental design including analysis for CRD, RCBD, LSD, SPD and factorial experiments with interaction; ANCOVA; Bioassay. Assignments employing data from the natural sciences will be processed in the microcomputer laboratory.</td>
<td>1 of 4U mathematics, OAC mathematics, equivalent or 0.50 credit in mathematics</td>
</tr>
<tr>
<td>STAT*2040</td>
<td>Introductory Applied Statistics I</td>
<td>F (3-2) [0.50]</td>
<td>Frequency distributions, graphing and tabulation of data. Measures of central tendency, variability and association. Elementary probability. Hypothesis testing and confidence intervals. Basic concepts of experimental design; treatment designs. Simple linear regression and correlation. Illustrated with examples from a variety of disciplines, including family studies, education, marketing, medicine, psychology and sociology.</td>
<td>1 of 4U mathematics, OAC mathematics, equivalent or 0.50 credit in mathematics</td>
</tr>
<tr>
<td>STAT*2020</td>
<td>Introductory Applied Statistics II</td>
<td>W (3-2) [0.50]</td>
<td>Design of sample surveys. Analysis of qualitative data. Analysis of variance for designed experiments. Multiple regression and analysis of covariance. Some non-parametric methods. Survey of special topics such as factor analysis and cluster analysis.</td>
<td>STAT*2080</td>
</tr>
<tr>
<td>STAT*2120</td>
<td>Probability and Statistics for Engineers</td>
<td>W (3-1) [0.50]</td>
<td>Sample spaces. Probability, conditional probability, independence. Bayes' theorem. Probability distributions. Probability densities. Algebra of expected values. Descriptive statistics. Inferences concerning means, variances, and proportions. Curve fitting, the method of least squares, correlation. Introduction to quality control and reliability. Recommended especially for students in the B.S.(Eng.) program.</td>
<td>1 of MATH<em>1010, MATH</em>1210, MATH<em>2080, IPS</em>1210</td>
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<tr>
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<tbody>
<tr>
<td>STAT*3100</td>
<td>Introductory Mathematical Statistics I</td>
<td>F (3-0) [0.50]</td>
<td>Probability spaces; discrete and continuous random variables; multivariable distributions; expectations; moments, Chebyshev's inequality, product moments; sums of random variables, generating functions; Gamma, Beta, t and F distributions; central limit theorem; sampling distributions.</td>
<td>STAT<em>2040 or STAT</em>2100</td>
</tr>
<tr>
<td>STAT*3110</td>
<td>Introductory Mathematical Statistics II</td>
<td>W (3-0) [0.50]</td>
<td>Estimation, unbiasedness, Cramer-Rao inequality, consistency, sufficiency, method of moments, maximum likelihood estimation; hypothesis testing, Neyman-Pearson lemma, likelihood ratio test, uniformly most powerful test; linear regression and correlation; non-parametric methods.</td>
<td>STAT*3100</td>
</tr>
<tr>
<td>STAT*3210</td>
<td>Experimental Design W</td>
<td>(3-0) [0.50]</td>
<td>Basic principles of design: randomization, replication, and local control (blocking); RCBD, Latin square and crossover designs, incomplete block designs, factorial and split-plot experiments, confounding and fractional factorial designs, response surface methodology; linear mixed model computer analysis of the designs; nonparametric methods; Taguchi philosophy.</td>
<td>STAT<em>2050, STAT</em>3240</td>
</tr>
<tr>
<td>STAT*3240</td>
<td>Applied Regression Analysis F</td>
<td>(3-2) [0.50]</td>
<td>Theory and applications of regression techniques; linear, non-linear and multiple regression and correlation; analysis of residuals; other statistical techniques including: response surfaces and covariance analysis, prediction and time-series analysis. The computer lab involves interactive data analysis and investigation of the methodology using SAS and/or S-PLUS statistical software.</td>
<td>STAT*4220</td>
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<tr>
<td>STAT*3320</td>
<td>Sampling Theory with Applications</td>
<td>F (3-0) [0.50]</td>
<td>Non-probability and probability sampling. Simple random sampling, stratified sampling, cluster sampling, systematic sampling, double sampling, two-phase sampling, multi-stage cluster sampling. Expectation and variance estimation procedures and applications of above techniques.</td>
<td>IPS<em>1210 or MATH</em>1210, MATH<em>2150 or MATH</em>2160, may be taken concurrently or with instructor consent, STAT<em>2050 or STAT</em>2100</td>
</tr>
<tr>
<td>STAT*3510</td>
<td>Environmental Risk Assessment W</td>
<td>(3-0) [0.50]</td>
<td>Contemporary statistical methods for assessing risk, including dose-response models, survival analysis, relative risk analysis, bioassay, estimating methods for zero risk, trend analysis, survey of models for assessing risk. Case studies illustrate the methods.</td>
<td>IPS<em>1110, MATH</em>1000, MATH<em>1080, MATH</em>1200, STAT<em>2050 or STAT</em>2250</td>
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<tr>
<td>STAT*4050</td>
<td>Topics in Applied Statistics I</td>
<td>W (3-0) [0.50]</td>
<td>Topics such as statistical computing procedures, quality control, bioassay, survival analysis and introductory stochastic processes. Intended for statistics students and interested students in other disciplines with appropriate previous courses in statistics. Information on particular offerings will be available at the beginning of each academic year. (Offered in odd-numbered years.)</td>
<td>STAT<em>3110, STAT</em>3240</td>
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<tr>
<td>STAT*4060</td>
<td>Topics in Applied Statistics II</td>
<td>W (3-0) [0.50]</td>
<td>Same as for STAT*4050. (Offered in even-numbered years.)</td>
<td>STAT<em>3110, STAT</em>3240</td>
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<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Credits</td>
<td>Prerequisites</td>
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<tr>
<td>STAT*4080</td>
<td>Data Analysis F (3-2) [0.50]</td>
<td></td>
<td>(MATH<em>2150 or MATH</em>2160), STAT<em>3110, STAT</em>3240</td>
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<tr>
<td>STAT*4100</td>
<td>Survival Analysis W (3-1) [0.50]</td>
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<td>STAT<em>3110, STAT</em>3240</td>
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<tr>
<td>STAT*4340</td>
<td>Statistical Inference W (3-0) [0.50]</td>
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<td>STAT<em>3110, STAT</em>3240</td>
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<tr>
<td>STAT*4350</td>
<td>Applied Multivariate Statistical Methods F (3-0) [0.50]</td>
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<td>(MATH<em>2150 or MATH</em>2160), STAT<em>3110, STAT</em>3240</td>
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<tr>
<td>STAT*4360</td>
<td>Applied Time Series Analysis W (3-2) [0.50]</td>
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<td>STAT*3110 or instructor consent</td>
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<tr>
<td>STAT*4510</td>
<td>Advanced Risk Analysis F (3-0) [0.50]</td>
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<td>STAT<em>3240, STAT</em>3510</td>
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Studio Art

School of Fine Art and Music.

Studio supplies: The majority of the cost of supplies must be borne by the student. In order to permit the University to subsidize this cost and to allow for savings through discount buying, some materials are obtained through the School of Fine Art and Music by payment of a lab fee. The amount of the fee is established for each semester prior to registration.

Note: Due to limited faculty resources and facilities, enrolment in these courses may be restricted to Studio Art majors or minors.

Admission to all Studio Art courses is based on the university's policy with regard to Priority Access Courses. Admission to courses is competitive based on the combined average of Studio Art and Art History courses (minimum 70%). Students must complete both SART*1050 and SART*1060 before continuing to 3000-level SART courses.

SART*1050 Integrated 2-D Media S,F,W (0-6) [0.50]
A studio-based investigation into the fundamental concepts, principles and elements of 2 dimensional visual structure and expression. Assigned projects, in-class exercises, slides, lectures and critiques will introduce the student to aspects of both traditional and contemporary practice.
Restriction(s): Registration in semesters one, two, three or four. May not register in SART*1060 in same term.

SART*1060 Media Convergence S,F,W (0-6) [0.50]
An introduction to the basic aspects of three-dimensional and time-based art production. Various topics, materials, and diverse approaches will be investigated through assigned problems, lectures, and critiques.
Equate(s): SART*2040
Restriction(s): Registration in semesters one, two, three or four. May not register in SART*1050 in same term.

SART*2090 Drawing I S,F,W (0-6) [0.50]
An introduction to the basic concepts, techniques and media of drawing, through disciplined observational and imaginative study.
Prerequisite(s): SART*1050 or SART*1060

SART*2200 Painting I F,W (0-6) [0.50]
Introduces various technical and aesthetic issues of painting, with an emphasis placed on representational strategies. Diverse approaches will be investigated through specific studio assignments in acrylic and oil-based media on various painting supports. Prior or concurrent Drawing classes are recommended.
Prerequisite(s): SART*1050

SART*2300 Sculpture I F,W (0-6) [0.50]
An introduction to contemporary sculptural concerns through projects and readings. Students will be actively engaged in exploring a variety of materials and ideas including modular construction, casting, and scale exercises.
Prerequisite(s): SART*1060

SART*2460 Introductory Printmaking I F (0-6) [0.50]
An introduction to the traditional printmaking media of intaglio and relief printing.
Prerequisite(s): SART*1050

SART*2470 Introductory Printmaking II W (0-6) [0.50]
An introduction to the techniques of the traditional printmaking media of lithography and silkscreen.
Prerequisite(s): SART*1050

SART*2610 Photography I F,W (0-6) [0.50]
An introduction to the creative application of photography in art; and, the basic principles of dark-room and camera skills.
Prerequisite(s): SART*1050 or SART*1060
Restriction(s): Registration in semesters two to five.

SART*2700 Introduction to Computer Graphics F (0-6) [0.50]
This course will extend the conceptual, technical, and aesthetic issues of studio art into the field of computer imaging. Drawings, photographs, and other found images will be scanned into the computer and digitally manipulated. Some computer experience is recommended.
Prerequisite(s): SART*1050

SART*2710 Drawing on the Computer S,W (0-6) [0.50]
An introduction to creating original graphics on the computer using a vector graphics program. Bringing traditional drawing and painting skills into the computer, students will produce original drawings and designs using vector graphics, bezier curves, compound paths, and multiple filters. Some computer experience is recommended.
Prerequisite(s): SART*1050

SART*2800 Extended Media I F,W (0-6) [0.50]
Basic video and digital audio editing will be integrated with other media, art forms, and issues such as performance, alternative venues, and installation, while emphasizing interdisciplinary and alternative approaches to contemporary art practice.
Prerequisite(s): SART*1060
Restriction(s): Registration in semesters two to five.

SART*3090 Drawing II F,W (0-6) [0.50]
An extension of SART*2090 which attempts to foster understanding of the basic skills and technical issues necessary to the making of drawings while introducing the philosophical and critical issues related to the discipline.
Prerequisite(s): SART*1050, SART*1060, SART*2090

SART*3200 Painting II F,W (0-6) [0.50]
A technical course in which specific tools of the wood and metal shops will be studied in depth through assignments. Conceptual issues will be examined in relation to the creation of objects.
Prerequisite(s): SART*1050, SART*1060, SART*2200

SART*3300 Sculpture II F,W (0-6) [0.50]
In-depth exploration into aspects of intaglio printmaking.
Prerequisite(s): SART*1050, SART*1060, (SART*2460 or SART*2470)

SART*3450 Lithography F (0-6) [0.50]
In-depth exploration of the art of lithography.
Prerequisite(s): SART*1050, SART*1060, (SART*2460 or SART*2470)

SART*3470 Photo-Printmaking W (0-6) [0.50]
An investigation into the uses of photographic resources in image making to produce photo etchings, silk-screens, and lithographs. Basic darkroom skills will be directed toward the production of graphic arts film, use of the stat camera, and various photo techniques. (Offered in odd-numbered years.)
Prerequisite(s): SART*1050, SART*1060, (SART*2460 or SART*2470)

SART*3480 Web Development and Design F (0-6) [0.50]
An in-depth study of website design using professional web authoring software. Students will design and create a website which explores a contemporary issue in their art practice.
Prerequisite(s): SART*1050, SART*1060, (SART*2700 or SART*2710)

SART*3750 Photography II F,W (0-6) [0.50]
A further exploration of expressive, formal and technical aspects of photography. Students without the stated prerequisite but with equivalent experience should consult the instructor.
Prerequisite(s): SART*1050, SART*1060, SART*2610

SART*3770 Extended Media II F,W (3-0) [0.50]
Further investigations into interdisciplinary alternative approaches to contemporary practice. Digital video editing will be integrated with other art forms and issues such as audio, performance, alternative venues, and installation.
Prerequisite(s): SART*1050, SART*1060, SART*2800

SART*3800 Experiential Learning F,W (0-0) [0.50]
An independent study course based on either Studio Art related voluntary or paid practical experience. Evaluation will be based on assignments related to work duties. Written proposals, signed by the instructor, must be submitted to the Director for the School for approval by the last day of course selection in the Fall (for Winter) or Winter (for the following Fall).
Prerequisite(s): 3.00 credits in Studio Art
Restriction(s): Registration is limited to students registered in the Art History or Studio Art specializations of the Bachelor of Arts program with an average of 70% in all ARTH and SART course attempts. Instructor consent required.
SART*4090 Drawing III F (0-6) [0.50]
Continuation of the various skills and technical issues necessary to the making of drawings. Observational drawing from the model, still life, natural forms, and interiors will be studied with a view to understanding the language and philosophical implications inherent within drawings of different styles.
Prerequisite(s): SART*3090

SART*4100 Drawing IV W (0-6) [0.50]
An advanced drawing course which explores a wider range of graphic experience including abstract, imaginary and other non-representational approaches to graphic discipline in our own time.
Prerequisite(s): SART*4090

SART*4200 Painting III F (0-6) [0.50]
A further extension of the work begun in SART*2200 and SART*3200. While the various technical and aesthetic issues will continue to be investigated through the discipline of observational painting there will be more emphasis on the critical issues relevant to contemporary painting and allowance for personal expression through both abstract and representational modes.
Prerequisite(s): SART*3200, SART*3210

SART*4210 Painting IV W (0-6) [0.50]
Advanced investigations into the role of observational study and strong emphasis on critical issues of contemporary painting whether representational, abstract, mixed-media, or other.
Prerequisite(s): SART*4200 or SART*4230

SART*4230 Special Topics in Painting W (0-6) [0.50]
An advanced course which focuses on a specific theme, subject, or technique in painting. Topics may include the figure and narrative in painting, the landscape in contemporary painting, or New Abstraction.
Prerequisite(s): SART*3200
Restriction(s): Registration is limited to students registered in the Art History or Studio Art specializations of the Bachelor of Arts program with an average of 70% in all ARTH and SART course attempts.

SART*4300 Sculpture III F,W (0-6) [0.50]
Contemporary issues in sculpture will be addressed through at least 2 studio projects including 1 site-response installation, and an independent work in close consultation with the instructor. Interdisciplinary projects based on the students' own research are strongly encouraged.
Prerequisite(s): SART*3300

SART*4310 Sculpture IV F,W (0-6) [0.50]
In close consultation with the instructor, the student will produce a body of independent sculpture with attention to clarity of personal statement, originality, and professionalism. Interdisciplinary projects based on the students' own research are strongly encouraged.
Prerequisite(s): SART*4300

SART*4410 Experimental Printmaking F,W (0-6) [0.50]
Further investigations into traditional and photo based printing media. Use of computer graphics to augment the design process.
Prerequisite(s): 3 of SART*2460, SART*2470, SART*3410, SART*3450, SART*3470

SART*4450 Advanced Printmaking F,W (0-6) [0.50]
Continuing in-depth investigation into various printmaking media, including the use of computer graphics and advanced manipulation of photo based images to create a thematically coherent portfolio of prints.
Prerequisite(s): SART*4410

SART*4700 Photography III F,W (0-6) [0.50]
An introduction to colour photography and a continuing investigation of the formal, technical and theoretical issues of contemporary photography.
Prerequisite(s): SART*3750

SART*4710 Photography IV F,W (0-6) [0.50]
A continuing investigation of colour photography and advance investigation into contemporary issues, with opportunities for interdisciplinary approaches to photographic practice.
Prerequisite(s): SART*4700

SART*4800 Special Topics in Sculpture F,W (0-6) [0.50]
An advanced course which focuses on a specific theme, subject, or technique in sculpture. Subject matter will vary according to the instructor or instructors and will consist of topics not otherwise available in the curriculum. Topics may include, for example, Kinetic Media, Public Art, Mold Making, or Figuration and Installation. Normally, two different topics will be offered each year (see SART*4870).
Prerequisite(s): SART*3300
Restriction(s): Registration is limited to students registered in the Art History or Studio Art specializations of the Bachelor of Arts program with an average of 70% in all ARTH and SART course attempts.

SART*4810 Extended Media III W (0-6) [0.50]
Advanced investigations into digital video/audio editing and interdisciplinary or alternative art practices.
Prerequisite(s): SART*3770

SART*4820 Extended Media IV W (0-6) [0.50]
Further investigations into digital video/audio editing and interdisciplinary or alternative art practices with emphasis on individual direction.
Prerequisite(s): SART*4810

SART*4830 Interactive Multimedia W (0-6) [0.50]
An in-depth study of two-dimensional interactive multimedia using professional authoring software. Students will design and create multimedia presentations which explore a contemporary issue in their art practice.
Prerequisite(s): SART*3480
Restriction(s): Registration is limited to students registered in the Art History or Studio Art specializations of the Bachelor of Arts program with an average of 70% in all ARTH and SART course attempts.

SART*4850 Specialized Studio Practice I F (0-6) [0.50]
An advanced and specialized workshop in individually selected studio practices which affords opportunities for interdisciplinary approaches and oversees the development of independent study strategies. Students will research and complete a major self-directed project. Not intended for all Honours students. Recommended to assist in the preparation of application to graduate school.
Prerequisite(s): A minimum of 2 courses at the 4000-level in Studio Arts (SART) courses and Art History (ARTH) courses.
Restriction(s): Permission of the Instructor or Director of the School.

SART*4860 Specialized Studio Practice II W (0-6) [0.50]
Continuation of SART*4850.
Prerequisite(s): A minimum of 2 courses at the 4000-level in Studio Arts, a minimum cumulative average of at least 80% in Studio Arts (SART) courses and Art History (ARTH) courses.
Restriction(s): Permission of the Instructor or Director of the School.

SART*4870 Special Topics in Sculpture F,W (0-6) [0.50]
An advanced course which focuses on a specific theme, subject, or technique in sculpture. Subject matter will vary according to the instructor or instructors and will consist of topics not otherwise available in the curriculum. Topics may include, for example, Kinetic Media, Public Art, Mold Making, or Figuration and Installation. Normally, two different topics will be offered each year (see SART*4890).
Prerequisite(s): SART*3300
Restriction(s): Registration is limited to students registered in the Art History or Studio Art specializations of the Bachelor of Arts program with an average of 70% in all ARTH and SART course attempts.
**Toxicology**

*Department of Biomedical Sciences.*

*Department of Chemistry.*

*Department of Environmental Biology.*

*Department of Mathematics and Statistics.*

*Department of Molecular and Cellular Biology.*

*Department of Pathobiology.*

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**TOX*2000 Principles of Toxicology F (3-0) [0.50]**

This course will establish the scientific principles underlying the toxic actions of various substances and will introduce the various challenges within the field of toxicology. The chemical nature of injurious substances, their uptake and metabolism by non-target organisms, and their mode of toxic action will be studied in addition to the methods used in safety evaluations and risk assessment. Department of Biomedical Sciences.

*Prerequisite(s):* (CHEM*1050 or CHEM*2300), (MATH*1080 or equivalent), (BIOL*1040 or equivalent) (CHEM*2300 may be taken concurrently)

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**TOX*3300 Analytical Toxicology F (3-3) [0.50]**

A course in trace analysis designed for students in toxicology and related programs. Analytical techniques of value in analyzing samples of toxicological importance will be presented with emphasis also on sample collection and preparation prior to analysis. Department of Chemistry.

*Prerequisite(s):* CHEM*2480, BIOC*2580, TOX*2000 (TOX*2000 may be taken concurrently)

*Restriction(s):* CHEM*3430, CHEM*3450, Priority Access course. Enrolment may be restricted to particular programs or specializations. See department for more information.

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**TOX*3360 Environmental Chemistry and Toxicology S,W (3-0) [0.50]**

The chemistry of the natural environment; the influence of pollutants upon the environment, including methods of introduction of pollutants to, and removal of pollutants from, the environment. Department of Chemistry and Biochemistry. (Also listed as CHEM*3360.)

*Prerequisite(s):* CHEM*1050

*Equate(s):* CHEM*3360

*Restriction(s):* CHEM*1310

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**TOX*4000 Medical Toxicology F (3-3) [0.50]**

The toxicology of mammalian body systems: dose-response, mechanisms and systemic sites of action of major groups of chemical toxicants. The course is designed for students majoring in biomedical toxicology. Department of Biomedical Sciences.

*Prerequisite(s):* BIOM*3090, TOX*3300

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**TOX*4100 Toxicological Pathology W (2-2) [0.50]**

Evaluation of the pathologic responses of cells and tissues to toxic compounds. The course is designed for students majoring in toxicology. Department of Pathobiology.

*Prerequisite(s):* PATH*3610 (or equivalent)

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**TOX*4200 Topics in Toxicology W (0-4) [0.50]**

Topics in toxicology will consist of oral and written presentations by students, faculty members, and guest lecturers. The emphasis will be on the broad integrative aspects of toxicology with particular reference to the whole organism and higher levels of natural systems; risk assessment and regulatory toxicology.

*Prerequisite(s):* TOX*2000, TOX*3300

*Restriction(s):* Registration in B.Sc. Honours Toxicology students in their 7th or 8th semester. Departments of Biomedical Sciences and Environmental Biology.

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**TOX*4550 Ecotoxicological Risk Characterization W (3-0) [0.50]**

A biologically based, advanced course that will give students working knowledge of current processes and techniques for ecotoxicological risk characterization. The course material will cover the topics of problem definition, dose response characterization, exposure characterization, risk assessment, and risk management decision making. (Also listed as ENVB*4550.)

*Prerequisite(s):* TOX*2000, ENVB*3030

*Equate(s):* ENVB*4550

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**TOX*4590 Biochemical Toxicology F (3-0) [0.50]**

The biotransformation of drugs, carcinogens, and other toxicants, including consideration of human health implications of these metabolic processes. The enzymes catalyzing these reactions will be discussed in detail. Designed for students specializing in Toxicology or Biochemistry. Department of Chemistry.

*Prerequisite(s):* (1 of CHEM*3430, CHEM*3450, TOX*3300), BIOC*3560, MBG*2020

Last Revision: October 18, 2005
The hours in courses below indicate the approximate equivalent number of semester course hours.

These courses will be available only to students registered in the D.V.M. program.

**VETM*3000 Veterinary Biochemistry P1 (2-1) [0.50]**
This course integrates the biochemistry of the healthy animal with a study of some abnormalities in metabolic pathways. The emphasis is on understanding the physiological and biochemical mechanisms and regulatory processes within cells, tissues and organs, as a basis for later courses on diseases. Department of Biomedical Sciences

**Co-requisite(s):** All Phase 1 courses.

**VETM*3070 Veterinary Anatomy P1 (2-6) [2.00]**
An introduction to comparative, topographical anatomy, primarily of 4 domestic mammals: cat, dog, horse and cow. Full dissections of these species are related to the living animal and to imaging, to form the basis for future studies in clinical morphology. Students are first introduced to the major anatomical systems and then to the regions in detail: thorax, abdomen, pelvis and perineum, limbs, and head and neck. Active learning, problem-solving, communication skills and the integration of material across concurrent courses are fostered. Department of Biomedical Sciences.

**Co-requisite(s):** All Phase 1 courses.

**VETM*3080 Veterinary Physiology P1 (3-3) [1.50]**
The course describes the physiological processes carried out by the major tissues and organ systems, and the regulatory mechanisms that affect tissue and organ function. Topics dealt with in the course include the following: the cellular and chemical constituents of blood, blood coagulation and haemostasis, the function of the immune system, resistance to infectious agents and the principles of immunoprophylaxis, cardiac function, cardiovascular haemodynamics, blood pressure, peripheral and regional circulation of blood, the lymph circulation, the structure and function of the mammalian nervous system and organs associated with special senses, the functions of the digestive tract, lungs and kidney thermoregulation and water, electrolyte and acid-base balance. The homostatic features and species variation of the tissue organ systems will be emphasized. Departments of Biomedical Sciences and Pathobiology.

**Co-requisite(s):** All Phase 1 courses.

**VETM*3120 Veterinary Histology P1 (3-3) [0.75]**
A lecture and laboratory course emphasizing the microscopic organization of the tissues and organs of domestic animals in various physiological states. Correlations between morphology and function of various cells and tissues comprising the organ systems will be discussed. Department of Biomedical Sciences.

**Co-requisite(s):** All Phase 1 courses.

**VETM*3210 Art of Veterinary Medicine I P1 (V-V) [0.50]**
In a series of integrated modules, this course will assist students in increasing their self-awareness and comprehension of a range of legal, professional and ethical values and behaviours that are essential and normal components of veterinary medicine. Emphasis will be placed on understanding, evaluating and improving interpersonal relations and oral and written communication skills. The ethical principles that underlie veterinary medicine will be explored in depth. The course will also assist students in understanding their position in the developing history of veterinary medicine and inform them of emerging trends. Issues related to professional development, how other species interact with humans, and the client/patient/veterinarian triad will be introduced. The application of these learned skills in the resolution of problems will be introduced. OVC Dean's Office, Department of Population Medicine and the Veterinary Teaching Hospital.

**Co-requisite(s):** All Phase 1 courses.

**VETM*3220 Art of Veterinary Medicine II P2 (2-0) [0.50]**
Using modules, this course will build on, and enhance, the knowledge base and skill set acquired in Phase I in the area of communications, human-animal interactions, professional development, and the client/patient/veterinarian triad. The focus in these areas will now move towards recognising difficulties that may arise and how to differentiate abnormal situations from normal ones. Problem-solving, conflict resolution and stress management through application of innate and acquired knowledge and skills will be developed.

In addition, the course will introduce concepts of business and entrepreneurial skills which are required for successful veterinary practice. OVC Dean's Office, Department of Population Medicine and the Veterinary Teaching Hospital.

**Prerequisite(s):** VETM*3210

**Co-requisite(s):** All Phase 2 courses.

**VETM*3390 Veterinary Medical Genetics P1 (1-1) [0.50]**
The course deals with the genetic basis of disease and birth defects in general and the salient features and inheritance patterns of the common birth defects, metabolic errors and reproductive problems in domestic animals. Department of Biomedical Sciences.

**Co-requisite(s):** All Phase 1 courses.

**VETM*3400 Health Management I P1 (3-1) [0.75]**
The course is the first of two comprehensive and integrated courses that will span the first two phases of the DVM program. Both courses are intended to establish the foundation for, and contribute to the students' achievement of selected DVM 2000 elements of competency. The emphasis will be placed on relevant epidemiological tools for monitoring, outbreak investigation, critical appraisal and the applications of principles from the previous course in the series to measure performance, including relevant production genetics, and animal behaviour in a species/industry context. Department of Population Medicine.

**Co-requisite(s):** All Phase 1 courses.

**VETM*3410 Health Management II P2 (3-0) [0.75]**
This course is a continuation of the Phase 1 course Health Management I. Previously presented concepts will be explored in greater depth and complexity. Additional emphasis will be placed on relevant epidemiological tools for monitoring, outbreak investigation, critical appraisal and the applications of principles from the previous course in the series to measure performance, including relevant production genetics, and animal behaviour in a species/industry context. Department of Population Medicine.

**Prerequisite(s):** All Phase 1 courses

**Co-requisite(s):** All Phase 2 courses.

**VETM*3430 Clinical Medicine I P1 (V-V) [0.25]**
The course will contribute to students' achievement of selected DVM 2000 elements of competency in the areas of animal handling and the clinical examination of various species. Students will become familiar with the expected variation in common clinical parameters and how this variation is impacted by aging, changes in health status, and external environmental influences and other sources of stress. Students will be introduced to clinical problem solving using case material from the Veterinary Teaching Hospital. They will develop their verbal and written communication skills through case simulations and analyses. The course will be presented using lectures, laboratory classes and independent study. The graduating competencies can be found on the OVC website (http://www.ovcnet.uoguelph.ca/homepage/html). Department of Clinical Studies.

**Co-requisite(s):** All Phase 1 courses.

**VETM*3440 Clinical Medicine II P2 (0-2) [0.50]**
The course is a continuation of Clinical Medicine I. It will contribute to students' achievement of selected elements of graduating competency in the areas of clinical examination of specific organ systems of various species. Students will enhance and refine their clinical problem solving skills using case material from the Veterinary Teaching Hospital. They will continue to develop their verbal and written communication skills through case simulations and analyses. The course will be presented using lectures, laboratory classes and independent study. The graduating competencies can be found on the OVC website (http://www.ovcnet.uoguelph.ca/homepage/html). Department of Clinical Studies.

**Prerequisite(s):** All Phase 1 courses

**Co-requisite(s):** All Phase 2 courses.

**VETM*3450 Principles of Disease in Veterinary Medicine P2 (V-V) [2.75]**
This course addresses several major topics, including principles of disease induction and transmission, host response to threat and injury, pathogenetic mechanisms of infectious and toxic agents, and manipulation of disturbances in health. The interaction among host, environmental, and etiologic factors in the development of disease will be highlighted. Students will learn to recognize, describe, and evaluate disturbances of health and homeostasis at the level of the population, individual animal, organ system, tissue and cell using a variety of diagnostic modalities. Departments of Biomedical Sciences and Pathobiology.

**Prerequisite(s):** All Phase 1 courses

**Co-requisite(s):** All Phase 2 courses.
XII. Course Descriptions, Veterinary Medicine

VETM*4470 Medicine and Surgery of Dog and Cat P3 (V-V) [1.00]

The course will contribute to students' achievement of selected DVM 2000 elements of competency in the context of the dog and cat. The primary emphasis is directed towards developing the skills, knowledge and attitudes that will permit the entry-level veterinarian to develop strategies to deal with common and uncommon diagnoses. The graduating competencies can be found on the OVC website (http://www.ovcnet.uoguelph.ca/homepage/html). Department of Clinical Studies.

Prerequisite(s): All Phase 2 courses.
Co-requisite(s): All Phase 3 courses.

VETM*4480 Comparative Medicine P3 (V-V) [0.75]

The course will contribute to students' achievement of selected elements of graduating competency in the context of pet birds, commercial poultry and non-traditional species (fish, amphibians, reptiles, rabbits, rodents, ferrets, non-domestic carnivores and non-domestic ungulates). The primary emphasis is directed towards enhancing the skills, knowledge and attitudes that will permit the entry-level veterinarian to develop strategies to deal with common and uncommon diagnoses. The graduating competencies can be found on the OVC website (http://www.ovcnet.uoguelph.ca/homepage/html). Department of Pathobiology.

Prerequisite(s): All Phase 2 courses.
Co-requisite(s): All Phase 3 courses.

VETM*4490 Systems Pathology P3 (V-V) [1.00]

The course will contribute to students' achievement of selected elements of graduating competency in the context of pathobiology across the range of species. The primary emphasis is directed towards developing the skills, knowledge and attitudes that will permit the entry-level veterinarian to carry out the post-mortem examinations, select and perform relevant ancillary diagnostic tests and procedures, interpret findings, and initiate and interpret results of further investigations. The graduating competencies can be found on the OVC website (http://www.ovcnet.uoguelph.ca/homepage/html). Department of Pathobiology.

Prerequisite(s): All Phase 2 courses.
Co-requisite(s): All Phase 3 courses.

VETM*4520 Surgical Exercises P3 (V-V) [2.00]

Veterinary students receive training in preoperative planning, anaesthesia and surgical techniques, operative room decision making and post-operative care in this laboratory course. Students begin by practicing technical skills on inanimate models. They progress to performing a series of supervised operations designed to parallel the most commonly performed surgeries in private practice. A once weekly rounds period allows discussion of issues arising from the previous anaesthesia and surgery, and planning for the upcoming laboratory. Though some didactic material is presented, the course is mainly experiential. The evaluation outcome of the course is outstanding, pass or fail. Department of Clinical Studies.

Prerequisite(s): All Phase 2 courses.
Co-requisite(s): All Phase 3 courses.

VETM*4530 Advanced Health Management Modules P3 (V-V) [0.50]

The course will contribute to students' achievement of greater depth in selected elements of graduating competency in the context of health management in species of their choice. The primary emphasis is directed towards developing species-specific skills, knowledge and attitudes that will permit the entry-level veterinarian to assess and advise on animal production and performance and evaluate the necessity for, and implementation of, health management programs. The course is constructed of a series of species-based modules. Students will be required to take two of the modules. The graduating competencies can be found on the OVC website (http://www.ovcnet.uoguelph.ca/homepage/html). Department of Population Medicine.

Prerequisite(s): All Phase 2 courses.
Co-requisite(s): All Phase 3 courses.

VETM*4610 Small Animal Clinics - Small Animal Stream P4 (V-V) [3.25]

This course is for students who have selected the Small Animal Stream in Phase 4 or DVM Program. The goal of the small animal clinics course is to assist in the role transformation from veterinary student to veterinary practitioner. The course is largely experiential in structure and process. Small groups of students will rotate through various service areas, and actively participate in the diagnosis and treatment of client-owned animals in the teaching hospital. Regularly scheduled small group discussions allow the exploration of issues during diagnosis and management of the individual cases.

Prerequisite(s): All Phase 3 courses.
Co-requisite(s): VETM*4620, VETM*4880, VETM*4900
Restriction(s): Registration in the DVM program.
VETM*4620 Health Management - Small Animal Stream P4 (V-V) [1.00]
This course is for students who have selected the Small Animal Stream in Phase 4 or DVM Program. The goal of the health management course is to assist in the role transformation from veterinary student to veterinary practitioner. The course is largely experiential in structure and process. Small groups of students will participate in a series of rotations that emphasize the implementation of veterinary directed management programs, which affect the health of animals and ultimately humans.
Prerequisite(s): All Phase 3 courses.
Co-requisite(s): VETM*4610, VETM*4880, VETM*4900
Restriction(s): Registration in the DVM program.

VETM*4640 Small Animal Clinics - Mixed Stream P4 (V-V) [2.00]
This course is for students who have selected the Mixed Stream in Phase 4 or DVM Program. The goal of the small animal clinics course is to assist in the role transformation from veterinary student to veterinary practitioner. The course is largely experiential in structure and process. Small groups of students will participate in a series of rotations that emphasize the implementation of clinical-directed management programs, which affect the health of animals and ultimately humans.
Prerequisite(s): All Phase 3 courses.
Co-requisite(s): VETM*4670, VETM*4680, VETM*4890, VETM*4900
Restriction(s): Registration in the DVM program.

VETM*4670 Large Animal Clinics - Mixed Stream P4 (V-V) [1.50]
This course is for students who have selected the Mixed Stream in Phase 4 or DVM Program. The goal of the large animal clinics course is to assist in the role transformation from veterinary student to veterinary practitioner. The course is largely experiential in structure and process. Small groups of students will rotate through various service areas, and actively participate in the diagnosis and treatment of client-owned animals in the teaching hospital. Regularly scheduled small group discussions allow the exploration of issues during diagnosis and management of the individual cases.
Prerequisite(s): All Phase 3 courses.
Co-requisite(s): VETM*4660, VETM*4670, VETM*4890, VETM*4900
Restriction(s): Registration in the DVM program.

VETM*4680 Health Management - Mixed Stream P4 (V-V) [2.00]
This course is for students who have selected the Mixed Stream in Phase 4 of the DVM Program. The goal of the health management course is to assist in the role transformation from veterinary student to veterinary practitioner. The course is largely experiential in structure and process. Small groups of students will participate in a series of rotations that emphasize the implementation of veterinary directed management programs, which affect the health of animals and ultimately humans.
Prerequisite(s): All Phase 3 courses.
Co-requisite(s): VETM*4660, VETM*4670, VETM*4890, VETM*4900
Restriction(s): Registration in the DVM program.

VETM*4710 Large Animal Clinics - Food Animal Stream P4 (V-V) [1.00]
This course is for students who have selected the Food Animal Stream in Phase 4 or DVM Program. The goal of the large animal clinics course is to assist in the role transformation from veterinary student to veterinary practitioner. The course is largely experiential in structure and process. Small groups of students will rotate through various service areas, and actively participate in the diagnosis and treatment of client-owned animals in the teaching hospital. Regularly scheduled small group discussions allow the exploration of issues during diagnosis and management of the individual cases.
Prerequisite(s): All Phase 3 courses.
Co-requisite(s): VETM*4720, VETM*4880, VETM*4900
Restriction(s): Registration in the DVM program.

VETM*4720 Health Management - Food Animal Stream P4 (V-V) [3.25]
This course is for students who have selected the Food Animal Stream in Phase 4 of the DVM Program. The goal of the health management course is to assist in the role transformation from veterinary student to veterinary practitioner. The course is largely experiential in structure and process. Small groups of students will participate in a series of rotations that emphasize the implementation of veterinary directed management programs, which affect the health of animals and ultimately humans.
Prerequisite(s): All Phase 3 courses.
Co-requisite(s): VETM*4710, VETM*4880, VETM*4900
Restriction(s): Registration in the DVM program.

VETM*4870 Clinical Medicine III P3 (0-2) [0.25]
This course will contribute to students’ achievement of selected DVM 2000 elements of competency in the context of the hospital environment. This is an integrated course in which students will enhance a variety of clinical skills, including physical examination, history taking, problem solving, and ancillary diagnostic tests and procedures. This course is primarily carried out in the Veterinary Teaching Hospital where students will be exposed to case material from the Large and Small Animal Clinics. The emphasis is directed towards enhancing the skills, knowledge and attitudes that will permit the student to maximize the benefit to be derived from senior year courses. Department of Clinical Studies.
Prerequisite(s): All Phase 2 courses.
Co-requisite(s): All Phase 3 courses.

VETM*4880 Electives in Veterinary Medicine I P4 (V-V) [3.25]
This course is for students who have selected the Small Animal or Food Animal Stream in Phase 4 of the DVM Program. The goal of this course is to provide students the opportunity to pursue greater breadth and depth in their program according to their interests. The course is largely experiential in structure and process. Students will select a series of approved internal and external rotations that will allow them to pursue areas of interest in veterinary medicine.
Prerequisite(s): All Phase 3 courses.
Co-requisite(s): (VETM*4610 or VETM*4710), (VETM*4620 or VETM*4720), VETM*4900
Restriction(s): Registration in the DVM program.

VETM*4890 Electives in Veterinary Medicine II P4 (V-V) [2.00]
This course is for students who have selected the Mixed or Equine Stream in Phase 4 of the DVM Program. The goal of this course is to provide students the opportunity to pursue greater breadth and depth in their program according to their interests. The course is largely experiential in structure and process. Students will select a series of approved internal and external rotations that will allow them to pursue areas of interest in veterinary medicine.
Prerequisite(s): All Phase 3 courses.
Co-requisite(s): (VETM*4660 or VETM*4920), (VETM*4670 or VETM*4930), (VETM*4680 or VETM*4940) VETM*4900
Restriction(s): Registration in the DVM program.

VETM*4900 Veterinary Externship P4 (0-0) [2.50]
This is an eight-week experiential learning opportunity that junior students in the DVM Program must organize by the mid-way through Phase 3 using resources available through the Department of Clinical Studies. The externship must be in approved private, primary care, veterinary practice (preferably in Ontario) that involves both food animal and companion animal species. Senior students in the DVM Program, under the supervision of a designated host veterinarian, will experience being part of a team providing health care services to the public. This course will provide students with the opportunity to integrate and apply their knowledge and experience from previous courses, and further refine their problem-solving and communication skills, and enhance their ability to work as part of a team. During the externship, students will receive formative evaluations of their performance relative to diagnostic skills, delivery of veterinary care, technical skills and professional conduct. At the end of the externship, students will also receive a summative evaluation in each of these areas. In addition to keeping a daily log of cases attended, students will also be required to write one case report. Normally, this will be based on a case attended during the externship and the manuscript will be written in the format of a "Brief Communication" following the format required by the Canadian Veterinary Journal. The evaluation outcome of this course is outstanding, pass or fail. Coordinated by the Department of Clinical Studies.
Prerequisite(s): All Phase 1, Phase 2 and Phase 3 courses.

VETM*4920 Small Animal Clinics - Equine Stream P4 (V-V) [1.50]
This course is for students who have selected the Equine Stream in Phase 4 or DVM Program. The goal of the small animal clinics course is to assist in the role transformation from veterinary student to veterinary practitioner. The course is largely experiential in structure and process. Small groups of students will rotate through various service areas, and actively participate in the diagnosis and treatment of client-owned animals in the teaching hospital. Regularly scheduled small group discussions allow the exploration of issues during diagnosis and management of the individual cases.
Prerequisite(s): All Phase 3 courses.
Co-requisite(s): VETM*4890, VETM*4900, VETM*4930, VETM*4940
Restriction(s): Registration in the DVM program.
<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Description</th>
<th>Prerequisite(s)</th>
<th>Co-requisite(s)</th>
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<td>VETM*4930</td>
<td>Large Animal Clinics - Equine Stream P4 (V-V)</td>
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<td>VETM*4940</td>
<td>Health Management - Equine Stream P4 (V-V)</td>
<td>1.50</td>
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Women's Studies

College of Arts.

WMST*1000 Introduction to Women's Studies F (3-0) [0.50]
An introduction to the methods and analyses of Women's Studies. An interdisciplinary femaleist and multicultural examination of research about women and the gendered nature of societies and cultures. Areas of inquiry may include psychology, law, science, culture, work, family, violence, health, and sexuality.

Equate(s): ISS*2200 , WMST*2200

WMST*2000 Women and Representation W (3-0) [0.50]
An interdisciplinary analysis of the role gender plays in representation, drawing on areas such as television, film, music, literature, visual arts, ethnography, medicine and law. International and cross-cultural perspectives included.

WMST*3000 Feminist Theory and Methods F (3-0) [0.50]
A comparative and critical examination of feminist theories and their methodological implications, including contributions of and tensions between various feminisms. Special attention to contemporary developments in the field.

Prerequisite(s): 10.00 credits including (1 of ISS*2200 , WMST*1000, WMST*2200 ), (0.50 additional credits from Women's Studies List A), (1 of ARTH*2480, DRMA*2300, ENGL*2120, PHIL*2060, POLS*2000, SOAN*2400)

WMST*3010 Gender and Diversity W (3-0) [0.50]
An examination of studies of the interaction of gender with race, class, ethnicity, sexual orientation, ability/disability, and other axes of difference as they position women within systems of power. Students will compare and assess contemporary theories, approaches, and research that address together gender and diversity issues and problems.

Prerequisite(s): 10.00 credits including WMST*1000, WMST*2000 , 0.5 additional credits from Women's Studies List A

WMST*3510 Directed Readings in Women's Studies S,F,W (3-0) [0.50]
An opportunity for advanced Women's Studies undergraduates to pursue an independent course of readings and assignments in Women's Studies. The student will design a course of readings and assignments with the instructor and submit the proposal to the Coordinator of Women's Studies for approval by the last day of the Add Period of that semester.

Prerequisite(s): 10.00 credits including (1 of ISS*2200 , WMST*1000, WMST*2200 ), 1.00 additional credits from Women's Studies List A

Restriction(s): Instructor consent required.

WMST*3520 Independent Workplace Learning in Women's Studies S,F,W (3-0) [0.50]
An opportunity for advanced Women's Studies undergraduates to combine workplace experience (in women-focused agencies or organizations) with Women's Studies research and assignments relevant to that work. The student will design a project with the instructor and submit a proposal to the Coordinator of Women's Studies for approval by the last day of the add period of that semester.

Prerequisite(s): 10.00 credits including (1 of ISS*2200 , WMST*1000, WMST*2200 ), 1.00 additional credits from Women's Studies List A

Restriction(s): Instructor consent required.

WMST*4010 Seminar in Women's Studies W (3-0) [0.50]
The framework of the course will be provided by a series of unresolved issues or challenging questions regarding women which will call upon the students' critical, evaluative, and integrative abilities. The content will largely depend upon the students' backgrounds within the program and their other major areas of study.

Prerequisite(s): (1 of ISS*2200 , WMST*1000, WMST*2200 ), 1.00 additional credits from Women's Studies List A

Equate(s): ISS*4010

WMST*4520 Advanced Topics in Women's Studies S,F,W (3-0) [0.50]
An opportunity for advanced Women's Studies undergraduates to pursue an advanced research project in Women's Studies. The student will design a project with the instructor and submit for approval to the Coordinator of Women's Studies by the last day of the add period in that semester.

Prerequisite(s): 15.00 credits including (1 of ISS*2200 , WMST*1000, WMST*2200 ), 1.00 additional credits from Women's Studies List A

Restriction(s): Instructor consent required.
Zoology

Department of Integrative Biology.

ZOO*1500 Humans in the Natural World - a Zoological Perspective S,F,W (3-0) [0.50]
This course will examine past and present human interactions with Nature from an ecological perspective. It investigates current global issues that require multi-disciplinary environmental analysis. (Also offered through distance education format.)

Restriction(s): This course is designed for non-science students. B.Sc. students cannot take this course for credit.

ZOO*2050 Natural History of Ontario S,F,W (0-0) [0.50]
This course provides an introduction to the natural history of Ontario. The course begins with a review of geological, ecological and evolutionary factors that have influenced species diversity in the province. Distributions and abundances of biota, primarily animals, are discussed within the context of the four major ecozones. Human impacts on the biotic diversity of Ontario are examined and the conservation of habitats and species is discussed. Students are required to do three reports, one of which involves field work. (Offered through distance education format only.)

Prerequisite(s): BIOL*1040 or equivalent

ZOO*2070 Invertebrate Zoology I F,W (2-3) [0.50]
To provide a general knowledge of the biology, functional morphology and ecology of the invertebrates from protists to molluscs.

Prerequisite(s): BIOL*1040

ZOO*2080 Invertebrate Zoology II W (2-3) [0.50]
To provide a general knowledge of the biology, functional morphology and ecology of the invertebrates from annelids to the urochordates.

Prerequisite(s): ZOO*2070

ZOO*2090 Vertebrate Structure and Function F,W (2-3) [0.50]
An introduction to the microscopic structure of the major organ systems of the vertebrate body. The study of epithelial, connective, muscular, and nervous tissues precedes examination of the comparative histology of the circulatory, nervous, digestive, integumentary, respiratory, excretory, reproductive, endocrine, and sensory systems of vertebrates.

Prerequisite(s): 1 of BIOM*3010, BIOM*3100, HK*3940, HK*3401/2, ZOO*2090, ZOO*3200

ZOO*3010 Wild Life Parasitology F (2-3) [0.50]
To provide an introduction to parasitology citing examples from the protozoans, helminths, and arthropods with particular reference to those in wild life, including fishes.

Prerequisite(s): ZOO*2070

ZOO*3200 Comparative Animal Physiology I F (3-0) [0.50]
The course will examine the underlying molecular and cellular events which mediate physiological processes and contribute to whole animal homeostasis. Particular emphasis will be placed on comparing the strategies and adaptations used by different animals and the influence of varying environmental conditions. The course will focus on the nervous, muscular, respiratory and circulatory systems. This course involves exercises that use animals. BIOM*3100, BIOM*3110 and HK*3940 are available to cover similar material without labs.

Prerequisite(s): BIOC*2580

ZOO*3210 Comparative Animal Physiology II W (3-3) [0.50]
This is the second course that provides an introduction to the physiological mechanisms used by vertebrates and invertebrates. The course will examine the underlying molecular and cellular events which mediate physiological processes and contribute to whole animal homeostasis. Particular emphasis will be placed on comparing the strategies and adaptations used by different animals and the influence of varying environmental conditions. The course will include an examination of digestive physiology, excretion, endocrinology and osmoregulation. This course involves exercises that use animals. BIOM*3100, BIOM*3110 and HK*3940 are available to cover similar material without labs.

Prerequisite(s): BIOC*2580

ZOO*3300 Evolution F,W (3-0) [0.50]
A comprehensive introduction to evolutionary biology, the historical development of the discipline, the extent and nature of genetic diversity, and the mechanisms of evolutionary change. Examination of adaptation and speciation, and the origins and patterns of biotic diversity through evolutionary time. Designed to integrate evolutionary theory with other fields of biology such as development, ecology and systematics.

Prerequisite(s): MBG*2000, (BIOL*2060 or BIOL*3110, which may be taken concurrently)

ZOO*3300 Evolution F,W (3-0) [0.50]
A comprehensive introduction to evolutionary biology, the historical development of the discipline, the extent and nature of genetic diversity, and the mechanisms of evolutionary change. Examination of adaptation and speciation, and the origins and patterns of biotic diversity through evolutionary time. Designed to integrate evolutionary theory with other fields of biology such as development, ecology and systematics.

Prerequisite(s): MBG*2000, (BIOL*2060 or BIOL*3110, which may be taken concurrently)

ZOO*4020 Ichthyology F (2-3) [0.50]
An introduction to the interrelationship of fossil and living taxa, and the fishes of the world with a special emphasis on the main Canadian and commercial forms, including detailed phyletic classification and evolution of fish-like vertebrates, their anatomical, morphological and selected ecological features.

Prerequisite(s): BIOL*3450, ZOO*2090

ZOO*4050 Natural Resources Policy W (3-0) [0.50]
An analysis of how political, economic, social and scientific factors interact to determine the policy underlying management of renewable and non-renewable natural resources provincially, nationally and internationally. The course will analyze current policies pertaining to fisheries, wild life, forestry, energy, water, minerals, international treaties and accords.

Prerequisite(s): 15.00 credits

Restriction(s): Registration in semester 7 or 8.

ZOO*4070 Animal Behaviour F (3-0) [0.50]
An introduction to the theories and principles of the behaviour of animals. The course will be a comparative study of learning, socialization, social interaction, and other components of animal behaviour.

Prerequisite(s): 1 of PSYC*2410, PSYC*3410, ZOO*3200

ZOO*4090 Ornithology F (2-3) [0.50]
An introduction to the biology of birds. Structure and function will be discussed in relation to various aspects of avian biology including evolution, flight, migration, reproduction, behaviour, and distribution.

Prerequisite(s): ZOO*2090

ZOO*4110 Principles of Fish and Wild Life Management F (3-0) [0.50]
Presents ecological aspects of managing populations of fish, birds and mammals, evaluates techniques and rationale for current fisheries and wild life programs. The course is not available to students in the Wild Life or Marine and Freshwater Biology majors.

Restriction(s): BIOL*4150, ZOO*4570

ZOO*4170 Experimental Comparative Animal Physiology W (2-3) [0.50]
An experimental approach to the study of physiological mechanisms and adaptive responses to changes in the environment will be stressed. The focus of the course will be on laboratory exercises.

Prerequisite(s): 1 of BIOM*3100, HK*3940, ZOO*3210

ZOO*4280 Mammalogy W (2-3) [0.50]
An introduction to the orders of mammals on a world-wide basis, with detailed examination of Canadian species.

Prerequisite(s): ZOO*2090
ZOO*4300 Marine Biology and Oceanography F (3-3) [0.75]
An intensive two-week course held in late August or early September before classes commence for the Fall semester. The course is held at the Huntsman Marine Science Centre, St. Andrews, New Brunswick. The ecology, behaviour, physiology, biochemistry, biomechanics of marine plants and animals will be studied as well as basic oceanographic techniques. Students will be able to familiarize themselves with the techniques and equipment involved in various branches of marine biology and oceanography. In addition to regular tuition fees, students are responsible for the cost of transportation to St. Andrews, and for charges levied by the Huntsman Marine Science Centre for room and board. These fees are paid to Student Finance and Awards of the University of Guelph. A department application form must be submitted for approval before course selection. The signature of the course coordinator is required to select the course. This course must be recorded as part of your Fall course selection and tuition and compulsory fees will be calculated accordingly. Students taking this course DO NOT use course numbers reserved for Ontario Universities Program in Field Biology.
Prerequisite(s): BIOL*3450, ZOO*2080

ZOO*4330 Environmental Biology of Fishes W (2-3) [0.50]
A comparative examination of selected freshwater and marine fishes to illustrate the significance of environmental influences on life styles, behavioral patterns, physiological responses, population biology and community structure. The use of niche, habitat and ecopepe concepts in defining the role of fishes in representative types of aquatic ecosystems. It is recommended that students take ZOO*4020 before taking ZOO*4330, even though ZOO*4020 is not required as a prerequisite.

ZOO*4350 Biology of Polluted Waters F (2-3) [0.50]
A practical course in biology of disturbed waters, and toxicity of pollutants to aquatic life. Designed to familiarize students with the characteristics of polluted ecosystems, best methods of field survey, and procedures for toxicity tests.
Prerequisite(s): BIOL*3450

ZOO*4390 Environmental Physiology F (3-0) [0.50]
A study of the influence of environmental factors on metabolic and regulatory mechanisms in animals, and of adaptational strategies for survival in different environments. How animals adapt to high pressure, low oxygen, high salinity and other environmental factors will be discussed.
Prerequisite(s): 1 of HK*3940, ZOO*3210, BIOM*3070, BIOM*3110

ZOO*4410 Field Ecology F (3-3) [0.75]
A 12-day field course held in Algonquin Park, Ontario, during August. Students independently conduct and write reports about 2 research projects of their choice and design (in consultation with faculty members), on any of: vertebrate, invertebrate, or plant ecology, and/or behaviour, in terrestrial or aquatic habitats. Emphasis is placed upon students asking ecological questions, designing experiments, and then collecting data from intensive field work. There are no formal lectures, but an organizational meeting is held in the winter semester prior to the field course. The charge by the field station for room and board will be passed on to the student. Students are also responsible for their own transportation to and from the field station. A departmental application form must be submitted for approval at least 4 weeks prior to the last day of course selection for the Summer semester, and the signature of the course coordinator will be required to select the course. This course must be recorded as part of your Fall course selection and tuition and compulsory fees will be calculated accordingly. Students taking this course DO NOT use course numbers reserved for Ontario Universities Program in Field Biology.
Prerequisite(s): 0.50 credits in ecology
Restriction(s): Instructor consent required.

ZOO*4430 Herpetology F (2-3) [0.50]
This course will serve as an introduction to the biology of amphibians and reptilians on a wide-scale basis with emphasis on the evolutionary significance of these groups.
Prerequisite(s): ZOO*2090

ZOO*4470 Comparative Endocrinology F (3-0) [0.50]
A study of the structure, function and evolution of endocrine glands and hormones, and the role of endocrines in integrating physiological functions in animals. The course is designed to familiarize biology students with current endocrine investigational methodology. (Offered in odd-numbered years.)
Prerequisite(s): 1 of BIOM*3110, HK*3940, ZOO*3210

ZOO*4490 Teaching in Zoology F,W (1-5) [0.75]
The student will undertake a teaching project of either a practical or theoretical nature under the supervision of a member of the faculty. Students must make arrangements with both a faculty supervisor and the course coordinator at least one semester in advance and the signature of the course coordinator will be required to select the course. A departmental registration form must be obtained from the course coordinator and submitted not later than the second class day of the semester in which the project is to be completed.
Restriction(s): Normally minimum cumulative average of 75% in biology courses during first 6 semesters of a major in the College of Biological Science. Course coordinator consent required.

ZOO*4500 Research Problems in Zoology I F,W (1-5) [0.75]
The student will undertake a research project of either a practical or theoretical nature under the supervision of one member of the faculty. Students must make arrangements with both a faculty supervisor and the course coordinator at least one semester in advance and the signature of the course coordinator will be required to select the course. A departmental registration form must be obtained from the course coordinator and submitted not later than the second class day of the semester in which the project is to be completed.
Restriction(s): Normally minimum cumulative average of 75% in biology courses during first 6 semesters of a major in the College of Biological Science. Course coordinator consent required.

ZOO*4510 Research Problems in Zoology II F,W (1-5) [0.75]
The student will undertake a research project of either a practical or theoretical nature under the supervision of one member of the faculty. Students must make arrangements with both a faculty supervisor and the course coordinator at least 1 semester in advance and the signature of the course coordinator will be required to select the course. A departmental registration form must be obtained from the course coordinator and submitted not later than the second class day of the semester in which the project is to be completed.
Restriction(s): Normally minimum cumulative average of 75% in biology courses during first 6 semesters of a major in the College of Biological Science. Course coordinator consent required.

ZOO*4540 Marine and Freshwater Research F (0-6) [0.50]
In this course, students will design, execute and communicate the results of a research project involving aquatic organisms. This will involve an examination of the primary scientific literature, the formulation of hypotheses, the design of experiments, the development of analytical skills and familiarity with the operation of analytical equipment and data analysis. Faculty guidance will be provided.
Prerequisite(s): BIOL*3450, BIOC*2580, PHYS*1080, STAT*2040 or instructor consent
Restriction(s): Registration in semester 7 of the Marine and Freshwater Biology Major of the B.Sc. Program.

ZOO*4550 Marine and Freshwater Adaptations W (3-0) [0.50]
Adaptations of organisms to various aquatic environments including marine polar, deep-sea, intertidal, fresh-water and alkaline lakes, will be examined. A mechanistic approach to establishing the strategies of environmental adaptation will be used. Emphasis will be placed on biochemical and biomechanical adaptations.
Prerequisite(s): BIOC*2580, PHYS*1080, BIOL*3450

ZOO*4570 Marine Ecological Processes F (3-1) [0.50]
Advanced consideration of physical and biogeochemical processes in the world's oceans. Examination of the critical dependence of biological processes on physical and chemical processes from micro- to macro-scales. The processes involved in: production and energy transfer within pelagic food webs; export of energy to the benthos; the structure and dynamics of marine communities.
Prerequisite(s): BIOL*3450, PHYS*1080

ZOO*4600 Tropical Ecology F (1-6) [0.75]
This three-week field course provides an opportunity to study the flora and fauna of marine, freshwater and terrestrial environments of the tropics. Based at field stations in Australia, the course includes lectures, field exercises and a student project. An information session is held in late November. Signature of course coordinator is required for course selection. Students are responsible for costs of food, lodging and transportation. Detailed information is available from the Department of Integrative Biology. This course must be recorded as part of your Fall course selection and tuition and compulsory fees will be calculated accordingly. Students taking this course DO NOT use course numbers reserved for Ontario Universities Program in Field Biology.
Prerequisite(s): BIOL*1040, (BIOL*2060 or BIOL*3110)
Restriction(s): Instructor consent required.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Description</th>
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<tr>
<td>ZOO*4610</td>
<td>Arctic Ecology F (1-6)</td>
<td>0.75</td>
<td>This three-week field course provides an opportunity to study the flora and fauna of marine, freshwater and terrestrial environments of the high Arctic. Based in the high Arctic, the course includes lectures, field exercises and student projects. An information session is held in January; students are required to register before March. Signature of course coordinator is required for course selection. Students are responsible for cost of food and transportation. Detailed information is available from the Department of Integrative Biology. (Offered in even-numbered years.) This course must be recorded as part of your Fall course selection and tuition and compulsory fees will be calculated accordingly. Students taking this course DO NOT use course numbers reserved for Ontario Universities Program in Field Biology.</td>
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<td>Prerequisite(s): BIOL<em>1040, (BIOL</em>2060 or BIOL*3110)</td>
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<td>Restriction(s): Instructor consent required</td>
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<tr>
<td>ZOO*4700</td>
<td>Field Biology S,F,W (1-6)</td>
<td>0.50</td>
<td>Students may apply for 2-week courses in the OUPFB (Ontario Universities Program in Field Biology). This program offers a diversity of field courses in biological subjects ranging from the Arctic to the Tropics, microbes to mammals, and covering marine, freshwater and terrestrial habitats. Costs include food and lodging and may include transportation. Detailed information is available from the Department of Integrative Biology.</td>
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<td>Restriction(s): Permission of the course coordinator</td>
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<td>ZOO*4710</td>
<td>Field Biology S,F,W (1-6)</td>
<td>0.25</td>
<td>Students may apply for 1-week courses in the OUPFB (Ontario Universities Program in Field Biology). This program offers a diversity of field courses in biological subjects ranging from the Arctic to the Tropics, microbes to mammals, and covering marine, freshwater and terrestrial habitats. Costs include food and lodging and may include transportation. Detailed information is available from the Department of Integrative Biology.</td>
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<tr>
<td>ZOO*4800</td>
<td>Field Biology S,F,W (1-6)</td>
<td>0.50</td>
<td>Students may apply for 2-week courses in the OUPFB (Ontario Universities Program in Field Biology). This program offers a diversity of field courses in biological subjects ranging from the Arctic to the Tropics, microbes to mammals, and covering marine, freshwater and terrestrial habitats. Costs include food and lodging and may include transportation. Detailed information is available from the Department of Integrative Biology.</td>
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XIII. Diploma Programs

For information about Associate Diploma Programs offered at the University of Guelph and regional campuses, please refer to the current Diploma Program Calendar. The current Diploma Program Calendar is available on the world-wide-web at http://www.uoguelph.ca/diploma_calendar/.
XIV. General Information

Centres and Institutes

Centre For International Programs
The Centre for International Programs, the first of its kind in Canada, aims to facilitate, stimulate and support a continuously growing range of University involvement in international activities. This goal is accomplished by developing and maintaining contacts with university partners around the world, supporting study abroad programs, and providing liaison with government agencies, private sector companies and non-governmental organizations. The Centre promotes development cooperation partnerships with developing countries, provides information on international opportunities and resources to students and faculty, provides support for international students and manages the University's student exchange programs. The Centre contributes to university policy on internationalization and serves as a focal point for links with other universities, government agencies, and private sector firms wishing to cooperate with the university in international activities.

Computing and Communications Services
Students are encouraged to purchase or arrange access to a computer for general computing needs, including word processing and spreadsheet applications. The computing environment on campus is primarily Windows. Laser printing facilities are available in several areas on campus.

Whether you are off campus or in residence, Computing and Communications Services (CCS) can help you. Central computing accounts provide access to the Internet and instructional software. You will enjoy access to e-mail and the Web, increasingly important educational tools. All residence rooms are connected to the campus fibre-optic network, providing you with Internet access.

You can access your account from many of the over 1,000 campus microcomputers or via your own computer. Training seminars are available to introduce you to the major software packages and applications. CCS offers phone support through their Help Centre as well as walk-in support at their Help Desk in the Library. To get started, you can access the CCS web site at www.uoguelph.ca/ccs. for information and help.

Child Care
The University of Guelph is consciously striving to provide equal opportunity for academically qualified students who are pregnant or have child care responsibilities, and to overcome barriers to full participation by such students in the University community. To this end, the University faculty and administration are sensitive to the need to assist students who are pregnant, or are parents, when unforeseen family responsibilities interfere with their educational endeavours. Students who require special consideration due to pregnancy or child care responsibilities are encouraged to speak to their course instructors or academic counsellors.

Campus Child Care Co-operative of Guelph
The Campus Child Care Co-operative of Guelph is a registered charitable organization incorporated as a co-operative non-profit day care. The centre is located on the edge of the University campus and offers care for 62 children between the ages of 3 months and 6 years. There are free-time and part-time programs offered weekly from 07:30 - 17:30.

The child care centre is a family-supportive setting governed by a Board of Directors who are elected by the parent body. Parents are welcome to visit and participate in the program.

The facility is open to children of OMAF employees, faculty, staff and students of the University and to the Guelph community. Subsidy is available for families that qualify for financial assistance. The Centre promotes development cooperation partnerships with developing countries, provides information on international opportunities and resources to students and faculty, provides support for international students and manages the University's student exchange programs. The Centre contributes to university policy on internationalization and serves as a focal point for links with other universities, government agencies, and private sector firms wishing to cooperate with the university in international activities.

Copyright Policy
When a student produces a work eligible for copyright based on research or other scholarly activity conducted under the supervision of a faculty member and the supervision of that work is a requirement of the academic program, the University, whilst acknowledging the sole copyright ownership by the student, reserves the right of access to the work. It is a condition of engaging in the undergraduate or graduate programs at the University that the University receives a non-exclusive royalty free license to:

1. Circulate the work as part of the University library collection;
2. Make copies or representations of the work for academic purposes within the University;
3. Make single copies of a thesis deposited in the University Library at the request of other universities or bona fide institutions;
4. Microfilm the work and submit the microfilm to the National Library of Canada;
5. Publish the abstract of any work which is a student thesis.

Cultural Affairs
The University of Guelph promotes a wide range of activities in fine art, music and drama. These activities, some of which are integral to the teaching program of the College of Arts, are administered by the appropriate departments and schools of the College and by the Curator of Art.

Guelph Campus Cooperative
The Guelph Campus Co-op started in 1913 by students who knew they couldn’t count on others to look out for their interests. So they organized their buying power. Their biggest concern: the availability and cost of textbooks and finding a decent place to live. Sound familiar? Obviously a lot has changed since then. But not the principles behind the co-op. First and foremost, we’re still by students for students. Students still dictate Co-op policy and our services are still focused squarely on making student life better. Perhaps most relevant to you is that we are not a profit-centred corporation. Getting more of your money is not our mandate. Saving you money is.

Guelph Campus Co-op Housing
Affordable and close to campus, the Co-op operates shared houses and apartments at below market rates. It’s a better deal because our mandate is to serve students, not make big profits. Another reason it’s affordable is that the deal includes your participation in the upkeep and running of your place. Sound reasonable? Apply early: only a limited number of units become available each term, and the waiting list can get pretty long. Application forms are available at the Co-op office at 17 College Avenue West (across from OVC) or our website at http://www.guelphcampuscoop.com

Co-op Bookstore
There are two bookstores on campus. Only one of them is owned by students. Where you spend your money counts. You get the lowest possible prices, and we’ll always substitute good used texts when they are in stock. We’ll also buy back your texts for cash any time throughout the year. When ordering, all you have to do is give us your order - in person, over the phone, or by email - and we’ll get everything ready for you. We know textbooks, and we know the courses you’re taking. So if you need help reviewing your course list needs, talk to us. That’s part of our service. To check your course lists on line, visit our web site at http://www.guelphcampuscoop.org

Annual memberships are available for $10 and entitle you to a 5 percent discount at the Bookstore, use of Co-op resources, the right to apply for Co-op housing, and the right to vote and run for the Board of Directors. For more information call 824-4950 or email info@guelphcampuscoop

Health and Performance Centre
The Health and Performance Centre is located on the second floor of the John T. Powell Building. It is easily accessed off of East Ring Road and is located near the Twin Pad Arena, Athletics and Student Health Services. The Centre provides service to all students and their families, staff and the general community.

The Health and Performance Centre specializes in the diagnosis, treatment and rehabilitation of acute and chronic orthopedic, musculoskeletal, sport and activity related injuries. The Centre also provides a variety of health promotion services including fitness and nutrition expertise. The Centre’s multi-disciplinary team includes: sports medicine physicians, physiotherapists, athletic therapists, massage therapists, dietitians, pedorthist, chiropractor and fitness consultant.

Services are offered on a fee for service basis. Many of the services are eligible for coverage by provincial and international health plans, the University of Guelph student health plan and other extended health plans. Students are encouraged to investigate their health coverage.

The Health and Performance Centre is open from 8:00 a.m. to 8:00 p.m. Monday to Friday. For general enquiries and appointments, please visit the website at http://www.uoguelph.ca/bpc or call (519) 767-5011 or ext. 55011.
Human Rights and Equity Office

The HREO is located at the north side of the campus at Fielding House, 15 University Avenue East. All enquiries are confidential. Office hours are Monday–Friday: 8:45a.m.–4:45p.m. Phone: 824-4120, ext. 53000; TTY: 767-0615; Website: http://www.uoguelph.ca/hre.

"The University of Guelph Human Rights and Equity Office (HREO) is dedicated to the removal of all systemic barriers, discrimination and harassment and will engage in advocacy within the university community towards this end."

(Mission Statement, Human Rights and Equity Office)

The University of Guelph prohibits harassment or discrimination in work, study, residential and university life on the basis of: race, colour, ancestry, place of origin (where you were born), ethnic background, citizenship, creed (religion), sex, disability, sexual orientation, age, marital status, and family status. In some cases, discrimination includes unfair treatment on the basis of the receipt of public assistance or a pardoned criminal offense.

The Ontario Human Rights Code and the Canadian Human Rights Act, as well as the University's Sexual and Gender Harassment Policy and Procedure and Interim Human Rights Procedure, prohibit harassment or discrimination on the basis of these grounds. The University of Guelph is currently developing a comprehensive human rights policy and complaint procedures to integrate and replace these existing policies and procedures. The University's human rights policies and complaint procedures are available on the HREO Web Page at http://www.uoguelph.ca/hre/.

Definitions

Harassment is defined as any attention or conduct (oral, written, graphic or physical) by an individual or group who knows, or ought reasonably to know, that such attention or conduct is unwelcome/unwanted, offensive or intimidating.

Discrimination is defined as the denial of equal treatment, civil liberties, and/or opportunity to a group or member of the group on the basis of: race, colour, ancestry, place of origin, ethnic background, citizenship, creed (religion), sex, disability, sexual orientation, age, marital status, family status and, in some cases, receipt of public assistance or a pardoned criminal offense. Discrimination may be systemic wherein the policies and practices that have become standard in established institutions appear to be neutral but result in the exclusion of certain groups.

Inquiries and Complaints

Members of the University community (including students, staff and faculty) have the right to seek confidential advice and information about concerns or complaints regarding harassment or discrimination. The HREO may assist individuals to resolve complaints by serving as a resource to the parties involved, providing mediation, or facilitating the University's human rights concern and complaint resolution procedures.

In addition, any party may consult with the HREO regarding an administrative, managerial or curriculum decision which may relate to a human rights or equity issue. The HREO also provides human rights education and training and works in partnership with the University constituents on matters of educational and employment equity.

Services

The HREO provides the following services to members of the University: information and advice regarding discrimination and harassment; facilitation of an internal human rights complaint procedure; mediation to resolve complaints; resource information on human rights and equity issues; training and education; participation on university committees; and research development and evaluation of equity initiatives.

Information on Teaching Certificates

Students contemplating a teaching career are advised to contact the appropriate Faculty of Education to determine the subjects, credits, and grades required for admission. Students contemplating a teaching career are advised to contact the appropriate Faculty for Information on all Ontario Faculties, as well as those in other provinces and some of Education to determine the subjects, credits, and grades required for admission.

International Students

The University of Guelph invites international students to apply for admission to our undergraduate and graduate programs. Financial awards and research grants are available to both undergraduate and graduate students.

The University supports the presence, and values the contribution, of international students in the cross-cultural learning and global understanding of the academic community and the City of Guelph.

Inventions Policy

In the course of completing their degree requirements, undergraduate or graduate students may discover or help discover technology which might be patentable and/or have the possibility for commercial development. Any student who suspects this might be the case should, without delay, contact his or her research supervisor, if appropriate, and the Office of Research. Although the rights to such inventions are owned by the University, in accordance with the University's Invention Policy, a student who is an inventor or co-inventor would share in any revenues earned by the invention.

Library

The University's collection of books, journals, documents, maps, microforms, films, video and audio materials is administered in the McLaughlin Library building, located in the centre of the campus, and in a branch in the Ontario Veterinary College. The collection consists of more than 2.1 million equivalent volumes and is increasing at the rate of 50-60,000 per year. In addition, the library has over 12,000 audio-visual holdings (audio recordings, films and video tapes) and over 70,000 maps. Access to these materials and the collections at the University of Waterloo and Wilfrid Laurier University is available through the TRELLIS system.

Services

The collection is housed in a modern building, considered among the best in Canada. In a pleasant air conditioned atmosphere all students and faculty have open access to the collection. Both individual and group study facilities are provided. Presentation of the non-transferable University Card is required each time a book is borrowed from the Library. This card also provides University of Guelph users borrowing privileges at all other Ontario university libraries.

Each holder of a University of Guelph or special borrower card is fully responsible for all Library material borrowed using that card.

Library staff is available to offer help in the use of a wide range of paper and electronic information resources. Orientation tours and instructional classes in the use of the Library are available. Photocopying machines are located throughout the Library. Please refer to the Library's information sheet "Copyright Guidelines".

Regulations and Hours

A series of leaflets detailing library privileges, services, regulations and hours may be obtained at the First Floor of the Library. For more information about the Library and its services visit http://www.lib.uoguelph.ca or http://www tug-libraries.on.ca.

OPRIG-Guelph

OPRIG-Guelph (Ontario Public Interest Research Group - Guelph) is a part of a provincial network of research, popular education, and action organizations. OPRIG works on a variety of environmental and social issues acting as a bridge between the campus and community. Projects include co-founding the Guelph Roundtable on Environment and Economy, the Speed River Cleanup and producing the Community Events Listing. Working groups of OPRIG raise awareness of such issues as political prisoners worldwide, sustainable food growing practices, and the destruction of old-growth forests. OPRIG-Guelph maintains a Resource Centre with books, documents, periodicals, and...
videos that students can access. The Research for Credit program allows students to apply their course work to community projects. Volunteer opportunities include working groups, the Resource Centre or special events and projects. Core funding (supplemented by grants and donations) is provided per semester through full-time student fees: $4.72 for undergraduates and $6.44 for graduates. The fee is refundable in the first three weeks if requested. OIPRG-Guelph can be reached by email at opirg@uoguelph.ca.

Regular Officer Training Plan (ROTP)

Under the ROTP, undergraduates who are successful applicants are enrolled as Officer Cadets in the Canadian Forces. Applicants must be Canadian citizens and pass pre-enrolment tests. Application may be made prior to entrance, or at any time prior to the last year of university studies. Applications are processed through Canadian Forces Recruiting Centres. For more information contact the local Recruiting Centre at 1-800-856-8488.

Statistics Canada - Notification of Disclosure

Statistics Canada is the national statistics agency. As such, Statistics Canada carries out hundreds of surveys each year on a wide range of matters, including education. In order to carry out such studies, Statistics Canada asks all colleges and universities to provide data on students and graduates. Institutions collect and provide to Statistics Canada student identification information (student's name, student ID number, Social Insurance Number), student contact information (address and telephone number), student demographic characteristics, enrolment information, previous education and labour force activity.

The Federal Statistics Act provides the legal authority for Statistics Canada to obtain access to personal information held by educational institutions. The information may be used only for statistical purposes, and the confidentiality provisions of the Statistics Act prevent the information being released in any way that would identify a student.

Students who do not wish to have their information released are able to ask Statistics Canada to remove their identification and contact information from the national database. For further information, please see Statistics Canada's web site at <http://www.statcan.ca> or write to the Postsecondary Section, Centre for Education Statistics, 17th Floor, R.H. Coats Building, Tunney's Pasture, Ottawa, Ontario, K1A 0T6.

Student Computing

Students are encouraged to purchase or arrange access to a computer for general computing needs, including word processing and spreadsheet applications. The computing environment on campus is primarily Windows. Laser printing facilities are available in several areas on campus. Whether you are off campus or in residence, Computing and Communications Services (CCS) can help you. Central computing accounts provide access to the Internet and instructional software. You will enjoy access to e-mail and the Web, increasingly important educational tools. All residence rooms are connected to the campus fibre-optic network, providing you with Internet access.

You can access your account from over 1,000 campus microcomputers or your own computer. Training seminars are available to introduce you to the major software packages and applications. CCS offers phone support through their Help Centre and as a partner in the Learning Commons, we provide walk-in support at the IT Help Desk in the Library. To get started, you can access the CCS web site at http://www.uoguelph.ca/ccs for information and help.

Student Life

Athletics

The University of Guelph offers students an excellent opportunity to combine academic pursuits with an athletics program of their choice. A quality athletics program is available to complement any student's leisure hours.

For skilled and competitive student athletes, dedicated to the pursuit of excellence, men's and women's intercollegiate programs are offered. The men's and women's teams compete in 17 team and individual sports at the provincial (OUA - Ontario University Athletics) and/or national levels (CIS - Canadian Interuniversity Sport). Prospective Intercollegiate athletes are urged to contact the coach by writing, phoning or e-mailing our Intercollegiate Office as soon as possible. Many teams require on- and off-season conditioning and training. For a full list of the intercollegiate sports offered, browse "Varsity Teams" on our web site at <http://www.uoguelph.ca/athletics>.

The Department of Athletics offers a multitude of on-campus recreational opportunities to all members of the University community. These on campus programs cover four general areas: intramurals, interest classes, sports groups and clubs and recreational activities. They are geared to all levels of skill and interest. All on-campus programs begin early each semester. Students should consult the "RecreAction" brochure, or the Department of Athletics website for detailed information.

Intramural sports involve more than 6,000 people at various levels of competition. The intramural programs encourage groups of students: men, women and co-ed to "get together" in an enjoyable "competitive" or "fun" setting at their own skill level. Soccer, ultimate frisbee, hockey, volleyball and basketball are very popular while the newest addition is badminton. Several one-day tournament activities are also offered. For a full list of sports, click on "Intramurals" on the athletics website.

More than forty different activities are offered in the interest class framework. Most of these programs are introductory in nature, providing participants with a foundation to continue these activities in future years. They range from CPR, dance, martial arts and aquatics to other various sports activities. In addition, there are a multitude of fitness programs that include both land and water classes operating throughout the day. For more information, consult the "Interest Classes" section of our website.

Sports Groups and Clubs provide another format for students to share their interest and enthusiasm through activity. The level and intensity of the activity will be determined by the demonstrated interest. Anyone interested in pushing themselves to new limits should definitely look into the Climbing Club. For a full list of sports groups or clubs, visit "Recreation and Clubs" on our website.

The University of Guelph has a wide range of indoor and outdoor facilities to service our varied, broad-based athletic programs. We have a stadium, lighted soccer, rugby, fastball and multi-purpose fields, four ball diamonds and four additional multi-purpose fields. The W.F. Mitchell Building has three gymnasia, two pools, five squash courts, three dance/multi-purpose rooms, a weight room, circuit room, cardio theatre, combatives room and two climbing walls. The Gryphon Centre houses a twin pad arena and our Gryphon Dome has a 200 m running track and (163' by 116') indoor turf field. The Athletics facilities are open from 6:30 a.m. until 11:30 p.m. Sunday to Thursdays and until 9:00 p.m. Fridays and Saturdays. For further details, click on the "Facility section of our website.

The Department of Athletics also offers employment opportunities to students in a variety of capacities including lifeguards, fitness and lifestyle instructors, intramural referees, interest class instructors, event management staff, weight and circuit room staff, client service centre staff, camp staff as well as many other areas within athletics. Browse the "Facility" page on our website to see a list of employment opportunities in Athletics.

Counselling and Student Development Centre

The Counselling and Student Development Centre offers support to students in their learning and personal development.

Because learning takes place both inside and outside of the classroom, we encourage students to take part in the following programs and services:

- **Multi Faith Resource Team** is a multi-faith service providing pastoral care and worship services. This group of religious persons, representing major world religions, sponsors programs related to agriculture, feminism, justice and spirituality. An interfaith resource centre is open to students.

- **The Centre for Students With Disabilities** assists students with disabilities by providing counselling and support, arranging appropriate classroom and exam accommodations and promoting greater awareness and understanding of disability issues in the university community.

- **Contact Help and Safety Line** is an after-hours phone line available to all members of the University community. Trained volunteers offer support and referral services to callers. All calls are confidential and anonymous. The Contact Line is open from 6:00 p.m. to 12:00 midnight every day.

- **Counselling Services** offers professional counselling to help students deal with personal or psychological problems in order to foster personal and academic growth. Both individual and group counselling therapy are provided.

- **Raithby House Drop-in** volunteers provide personal support, information, a listening ear and referrals on an informal drop-in basis. Any member of the university community is welcome to use the Drop-In when they wish to talk to someone or wish information. Raithby House Drop-In is staffed by trained student volunteers. The House Drop-In is open Monday to Friday from 4:00 p.m. to 12:00 midnight. You will see The House flag flying when we are open.

Learning Commons

The Learning Commons, located on the first floor of the McLaughlin Library, brings together in one location services than enhance learning, writing, research, and technology at the University of Guelph

**IT Help Desk** provides computers, printing, and scanning in addition to on-line resources, information, and assistance with various University-supported software.

**Learning Services** provides support to undergraduate and graduate students concerned with improving their learning and enhancing their academic performance. Services include a range of programs, workshops, presentations, printed and on-line resources, and individual assistance.

**Library Centre for Students with Disabilities (LCSD)** offers a range of services and adaptive software that enable students with disabilities to access Library as well as other information resources.

**Library Research Help Desk** assists students, staff and faculty in developing their information literacy skills in locating, evaluating, and effectively managing the information they need for their assignments and research.

**Supported Learning Group Program (SLG)** uses peer-led study sessions to enrich the learning experience of students enrolled in historically challenging courses including first year Chemistry, Computer Science, Economics, Mathematics, and Psychology.
Canadian Federation of Students

The C.F.S. is the national voice of students, representing more than 400,000 students across the country. The C.F.S. lobbies the federal government for changes which are aimed at making post-secondary education more accessible to all students. They provide research documents, campaigns, and services for all members across the country.

Canadian Federation of Students-Ontario

The C.F.S.-O. is the provincial voice of students, representing more than 200,000 students across the province. The C.F.S.-O. lobbies the provincial government for changes which are aimed at making post-secondary education more accessible to all students. They provide research documents, campaigns, and services for all members across the province.

Other Student Groups

Other important groups on campus include College Student Governments, Interhall Council, the Guelph Campus Co-operative, and the Ontario Public Interest Research Group. All of the above organizations combine to make Guelph one of the most active campuses in the country. We hope that you continue in that tradition, and come on up to the C.S.A. office (University Centre 274) or give us a call at extension 56748. Remember that your education does not end when class is over. So make a difference in your university experience by getting involved with your student association.

Student Health Services

Student Health Services, located in the Powell Building across from the Twin Pad Arena, provides medical and healthcare services to all students and their immediate families. Student Health Services provides acute care intervention and continuing care for any health related problems. Student Health Services also provides Health Education programming through the activities of the Wellness Centre, and numerous peer helpers and volunteers. Health Services has a multi-disciplinary team that includes family physicians, psychiatrist, nurses, dietitians, and health educators. In addition to appointment clinics, specialty programs include the Wellness Centre, a daily Monday to Friday Walk-In Clinic from 8:30 a.m. to 4:30 p.m., a dispensary, immunization clinics, and a Nurse-in-Residence.

Students are required to bring their OHIP card, other provincial health plan information or UHIP card when attending Health Services for care. To assist with some other non-insured health care and prescription drug costs, the Student Associations manage a supplementary extended health and dental plan for students.

In the Fall and Winter semesters, Student Health Services is open from 8:30 a.m. (9:00 a.m. Thursdays) to 5:00 p.m. Monday to Friday. Evening clinic hours and Saturday afternoon clinic hours are also available. In the Summer semester, clinic hours are 8:30 a.m. to 4:30 p.m. Monday to Friday. To make an appointment, for general enquiries, or for after-hour care information call extension 52131.

Student Housing Services

Living on Campus

Student Housing Services wants you to feel that residence is your home; a place where you can study, develop lasting friendships, become involved in University activities, or just relax. Each building has a professional Residence Managers and a Residence Life Staff comprised of students. They are there to meet you in September, introduce you to others in the building, and act as resource people throughout the year.

Residence living is convenient. A full range of services is provided to residence students. Each room comes completely furnished and includes a telephone and voicemail. The residences are equipped with laundry facilities, study rooms, lounges, and other common spaces. Renowned for its excellence in food service, Guelph provides 14 different on-campus food facilities including dining halls that cater mainly to residence students.

A variety of living accommodations is available: quiet areas, co-educational and all-female residences are equipped with laundry facilities, study rooms, lounges, and other common spaces. Renowned for its excellence in food service, Guelph provides 14 different on-campus food facilities including dining halls that cater mainly to residence students.

Family Housing

Accommodation for students with families is available in apartment and townhouse units located on two sites near the west end of the campus. With reasonable rents and a strong sense of community, these facilities are in very high demand. If you are considering applying for Family Housing, please contact the Family Housing Office (ext. 52551).

Off Campus Housing

Student Housing Services operates the Off Campus Housing Office, which maintains listings of various types of accommodation in the Guelph area. The office can help you with where and when to look for housing, can advise or make referrals on landlord/tenant issues, and has information that can make your housing search, and getting settled in, easier. Listings can be viewed at http://www.learningcommons.uoguelph.ca.

Further Information

For further information on individual residences and application procedures, please refer to the University of Guelph Admissions Handbook or contact Student Housing Services.
Student Life and Career Services

Student Life and Career Services supports the mission and strategic directions of the University of Guelph by facilitating successful student transitions to, through, and from university life and study. The Student Life unit includes the Aboriginal Resource Centre, Centre for New Students, citizenship and leadership education, service and involvement programs, student activities, and neighbourhood relations. Career Services is composed of career planning, online career development programs, further education planning, job search planning, job posting services, on-campus recruitment, employer events, employer experience and employer development. The department also operates the Information Desk, located at the South Entrance to the University Centre, and the Connection Centre, an integrated resource centre housing materials on a wide range of student career development, student employment, and transition topics, on Level 3 of the University Centre.

Student Rights and Responsibilities

Student membership at the University of Guelph is associated with fundamental rights and responsibilities intended to maintain the integrity of the University as a community for learning. Staff, faculty and students co-operate to sustain an education environment that promotes individual learning and development. The University accepts that students are able to make responsible decisions regarding their behaviour. These regulations help to provide for an environment that supports personal and intellectual growth. They are intended to recognize a student’s rights and the rights of others, while also identifying certain responsibilities of students that are a part of the exercise of these rights.

For purposes of Student Rights and Responsibilities, a student is any person registered in an undergraduate or graduate program at the University of Guelph, or otherwise taking credit or non-credit courses offered by the University or any person who was a student at the time the alleged offence occurred.

Students have the RIGHT to access the Judicial system if a violation of this policy has occurred, whether that violation has occurred on or off campus provided that the violation affects their ability to use and enjoy University facilities.

University Community Principles

The University of Guelph is dedicated to the advancement of learning and the dissemination of knowledge; the intellectual, social, moral and physical development of its members; and the betterment of society (University of Guelph Act, 1964). These overall goals commit us to three central values:

- The development of all members of this university community, which implies and affirms the dignity, worth and autonomy of the individual.
- A focus on learning and knowledge, which upholds the fundamental importance of reasoned debate and inquiry in all of this university’s academic and service functions.
- Societal enhancement, which extends the commitment to individual development beyond the walls of the institution to the ideal of service to the broader community.

Academic Responsibilities

You have the RIGHT to engage in free intellectual enquiry and, within the limits of the materials and human resources and approved University protocols, to access the resources necessary to plan and accomplish your educational and career objectives. You have the RESPONSIBILITY to:

- pursue the Learning Objectives* established by the University in the context of your own program and goals;
- adhere to the schedule of dates* and academic and non-academic regulations;
- select courses based on academic program requirements*;
- consult your academic advisor (Program Counselor, Departmental Advisor, Graduate Coordinator) or the relevant Academic Review Committee if extenuating circumstances affect your academic performance;
- abide by the University’s Policy on Academic Misconduct.1

I. Civil/Criminal Statutes.

You retain your RIGHTS as a citizen when you become a member of the University community. You have the RESPONSIBILITY to abide by Federal, Provincial and Municipal statutes in addition to the University’s own regulations, including, but not limited to the Acceptable Use Policy and Guidelines for the University of Guelph Computing and Networking Facilities2 and the In-line Skates, Roller Blades and Skateboards Policy3. The University’s interest may cause it to initiate a hearing (refer to Judicial Processes) whether or not criminal or civil action is taken with respect to the same incident(s).

II. Offenses against Persons.

1. Bodily Harm

You have the RIGHT to an environment that is safe and free from unwanted attention. You have the RESPONSIBILITY not to engage in activities likely to endanger the health or safety of yourself or another person, or to assault or threaten to assaulted another person, or to knowingly cause another person to fear bodily harm.

2. Harassment

You have the RIGHT to an environment characterized by mutual respect. You have the RESPONSIBILITY to treat all members of the University community with respect and without harassment. Harassment is defined as any attention or conduct (oral, written, graphic or physical) by an individual or group who knows, or ought reasonably to know, that such attention or conduct is unwelcome/unwanted, offensive, or intimidating.

III. Offenses involving Property.

1. Facilities, Telecommunications, Library, University Property and Private Property

You have the RIGHT to the use of University facilities. You have the RESPONSIBILITY to:

1. respect posted hours and limits on entry where such conditions exist;
2. confine smoking only to areas designed for that purpose;
3. not destroy, tamper with, deface or vandalize, monopolize, unlawfully access, remove or possess property not your own, including, but not limited to, Library material, computing facilities, communication systems, and emergency telephones;
4. not discharge, tamper with or operate any fire prevention or detection equipment for any purpose other than the control of fire. (For students found guilty of offences under this section, mandatory minimum penalties apply.)

2. Permits and Identification

You have the RIGHT, upon payment of any required fee, to access certain special services as a University community member. You have a RESPONSIBILITY not to acquire or use meal cards, University identification, computer identification, bus passes or parking permits that are stolen, cancelled, lost, false, altered or expired.

3. Grounds

You have the RIGHT to use of the University grounds. You have the RESPONSIBILITY to observe the following specific limitations:

1. Authorized Entry - posted hours and limits on entry must be observed and adhered to.
2. Bicycles - Bicycles are subject to removal at the owner’s expense if they are secured to trees or railings, secured to ramps for the disabled, left in fire routes or stairwells of any University building or otherwise found obstructing by being in any unauthorized area.
3. Automobiles - Automobiles are subject to removal at the owner’s expense if left in fire routes, area for disabled access, pedestrian walkways, driveways, or otherwise found obstructing by being in an unauthorized area.
4. Temporary Accommodation - Sleeping or maintaining residence in vehicles, trailers, tents or University facilities is prohibited, except where specifically authorized.
5. Pets - Pets on campus must be under direct control at all times and must not be left unattended. Pets are not allowed in University buildings except as authorized.

IV. Disruption

You have the RIGHT to an environment that, while safeguarding dissent, is free from interference and disruption. You have the RESPONSIBILITY not to interfere with the normal functioning of the University, nor to intimidate, interfere with, threaten or otherwise obstruct any activity organized by the University, including classes, or to hinder other members of the University community from being able to carry out their legitimate activities, including their ability to speak or associate with others.

V. Other

1. Drugs and Alcohol

You have the RESPONSIBILITY to abide by the Provincial Liquor Licence Act and Provincial and Federal statutes pertaining to illegal drugs and alcohol. The possession, use or trafficking of illegal drugs is prohibited, and each activity may form the basis of a separate charge. For students found guilty of a drug offence within Student Housing, mandatory minimum penalties will apply. The possession of liquor by those under the age of 19 is prohibited. Consumption or open possession of liquor is prohibited, other than in those residence rooms where it has been specifically permitted or in licensed premises.

2. Visitors

You have the RIGHT, upon compliance with existing sign-in requirements (Student Housing Services and licensed establishments), to have visitors on campus. As their sponsor, you have the personal RESPONSIBILITY to ensure that your guests abide by these regulations.
3. Firearm and other Weapons. Firearms, any other weapons, firecrackers, gunpowder,
or any other forms of unauthorized explosive or volatile materials are prohibited on
campus.

Judicial Processes

Every student has a RIGHT to a full and fair hearing, by an impartial tribunal, of the
merits of any charge brought against him or her under these regulations. Every student
who is charged with a non-academic offence has a right to present a full and complete
defence, and to be accompanied by an advisor (or legal counsel) at any hearing of the
charge against him/her. Students charged are presumed innocent until found guilty on the
basis of evidence presented, using the balance of probabilities as the standard of proof.
The University has devised a process which provides for appropriate disciplinary penalties
to be imposed. These penalties may include fines (up to $1,000), probationary periods,
warnings and, in extreme cases, a recommendation for suspension or expulsion.

Every student has a responsibility to comply with a Summons or Decision and Order of
the Judicial Committee and/or Hearing Board. Failure to do so may constitute a breach of
Student Rights and Responsibilities.

The President or designate may implement an interim suspension if, in his/her opinion, a
student's conduct raises a reasonable apprehension of harm to the student or to others in the
University community, or the normal functioning of the University. A Judicial proceeding
will be undertaken as soon as possible to allow for a hearing of the case and, in any event,
no longer than fourteen working days from the laying of the charge.

The Judicial Committee at the main campus and each Regional College has the authority to enforce these regulations if a breach of the regulations occurs off campus, which affects
the rights of the members of the University community to use and enjoy University
facilities.

Each Judicial Committee is an appointed tribunal of students, staff and faculty that hears
reported incidents of student behaviour that represent alleged infractions of the student
regulations and formal complaints against students under the policy Human Rights at the
University of Guelph. The Judicial Committee may also act as an appeal body to hear
appeals regarding decisions of a non-academic nature imposed by a University of Guelph
department or Regional College where there is no other existing appeal process.

Decisions of a Judicial Committee may be appealed to the Hearing Board or in the case of
the Regional Colleges, the Appeal Board. The Hearing/Appeal Board is a student/faculty/staff tribunal. The Board hears appeals from decisions of the Judicial Committee when one or more of the grounds for appeal are satisfied.

Further information on the Judicial process may be obtained from the Judicial Officer,
Senate Secretariat, 4th floor, University Centre, at ext. 53116 or from the Director's Office
at each Regional College.

Further information and copies of the Student Rights and Responsibilities document are available from the Office of Student Affairs, 4th floor, University Centre, at ext. 53868 for from the Director's Office at each Regional College. It can be viewed on-line at http://www.uoguelph.ca/studentaffairs/home/documents/student_rights_responsibilities.pdf.

Comments on the document and specific suggestions for amendments or additions to the
student regulations are welcome at any time and should be referred to the Office of Student
Affairs.

4 Refer to the Human Rights at the University of Guelph document, available on-line at
http://www.uoguelph.ca/hre/.

Students With Disabilities

The University of Guelph is committed to creating a barrier-free environment. We feel that providing services for students with disabilities is a shared responsibility among students, faculty and administration. This relationship is based on respect of individual rights, the dignity of the individual and the University community's shared commitment to an open, supportive learning environment.

The CSD is staffed with special needs advisors, strategists and specialists and
administrative support. Our services are complemented by Peer Helpers and volunteers
who provide one-to-one assistance. When necessary, referrals are made to other services
such as personal counselling, career counselling and stress management.

Admission Procedures

The University of Guelph is committed to ensuring equal access for students with
disabilities. The University encourages applications from students with disabilities and
will provide admission information to applicants in alternate formats (Braille, audio tape)
upon request.

If you need assistance with the admission process or your marks do not reflect your ability,
contact the Centre for Students with Disabilities or Admission Services (extension 58721)
for further information.

All information that you provide is held in confidence and the disclosure of a disability will in no way jeopardize your chance of admission.

Upon admission, students requiring services and accommodations related to their disability
must forward supportive documentation of their disability to the Centre for Students with
Disabilities. In the case of students with learning disabilities, documentation should include
a recent and valid psycho-educational assessment.

Services

The Centre for Students with Disabilities (CSD) works with students who have hearing,
visual, learning, medical, physical or psychological disabilities. The Centre has a variety
of resources providing support and resources that will facilitate success in the academic
process. Resources such as taped texts, writing tutors, computer assisted technology,
photocopy services, notetakers, interpreters and library assistance are available. Counselling
is provided in the academic, financial, residential and personal areas. Advisors will also
liaise with faculty to ensure that the proper classroom and exam accommodations are
available to the student. A learning disabilities strategist is available to provide students
with learning disabilities learning strategy instruction and counselling related to their
disability. The CSD is located on the 3rd Floor, University Centre, extension 56208.

University Bookstore

The University Bookstore, in the MacNaughton Building, carries every textbook required
for every course plus course packs, additional reading material and all the stationery
supplies students need. They also provide as many used texts as possible to help students
defray costs. In addition to academic material, the Bookstore offers a wide selection of
University clothing and gifts, popular paperbacks and magazines.

Located on the 2nd floor of the University Bookstore, is Pages Coffeehouse. Open Monday
to Friday, students can relax on the comfy couches, sip Free Trade coffee and enjoy a
light meal or snack in the casual café.

University Centre

The University Centre exists both as a service and community centre. The University
Centre is governed by a Board composed of representatives from the University Centre
user groups, including undergraduate and graduate students, faculty, administration, staff
and alumni. This group of people, appointed on a two-year basis, is charged with the
responsibility of ensuring the University Centre's goals are met through policy and
planning. Within the University Centre, numerous administrative departments, commercial services,
student organizations and programming facilities exist for the convenience and enjoyment
of all members of the University Community. A wide variety of shops and services are
located on the first floor of the University Centre surrounding an open courtyard.

Centre Six Food Court opens early and closes late, offering a wide array of specialty
shops including Nature's Best Vegetarian, Exhibition Cooking and the Wokathon.
Enhancing the variety are several popular brands such as Subway, Tim Hortons, Williams
Coffee Pub, Taco Bell, KFC and the Pita Pit.

The University Centre Variety and Gift Shop, located on the main floor, carries a wide
selection of greeting cards, magazines, gift items and provides a full service Post Office.
The Daily Grind is a friendly and comfortable coffee house serving Starbucks and Free
Trade coffees, gourmet sandwiches, salads, snacks and pastries. This is a great place to
meet with friends, study, read or watch your favourite TV shows.

The Brass Taps (level 2), with its relaxed atmosphere and excellent weekly entertainment
line-up (never a cover!), is a favourite campus meeting spot. The Taps kitchen offers a
wide range of daily specials and a menu geared to the many diverse appetites found on
campus. Meal Plans accepted.

The Programming Department offers a wide selection of entertainment and cultural
events to the University Community. As well, this department offers students, staff and
faculty assistance in setting up their own entertainment programs on campus.
The Performance Season features concerts and plays held both on and off campus at such
locations as the River Run Centre, War Memorial Hall and Peter Clark Hall.
The Programming Office presents a number of weekend fairs of interest to students,
faculty and staff. The most successful and popular of these has proven to be Fair November,
our annual fall Craft Show.

On Level 0 the facilities include the Music Practice Room, the Off Campus Student
Lounge, Mail Services, and Loading Dock with courier pick up and delivery service. Peter
Clark Hall is located in this level as well.

Level 1 houses many businesses including a travel agency, a dentist, a chiropractor/massage
therapist, a CD shop, a hair salon, a sign making shop, a photographer and bank machines.
Also located on Level 1 is the Women's Resource Centre, an information desk, the 103
meeting room and the various courtyard activities and sales.

On Level 2 of the University Centre, office space and operational facilities are provided for
the University Centre Building Administration and the Central Student Association.

Space and operational facilities are also provided for the various clubs and organizations
of the Central Student Association, the Ontario (a weekly campus tabloid newspaper)
and CFRU-FM or Radio Gryphon. The CUPE 3913 office is also located on this level.

Levels 3 holds many meeting rooms which can be booked through the University Centre
Administration Office. The CUPE 1334 office is also located on this level. Administrative
offices are located on this level and include the Office of Registrarial Services, Co-operative
Education Services, Counselling and Student Development Centre, Student Life and
Career Services, Undergraduate Academic Information Centre, and The Centre for Student's
with Disabilities.

Level 4 North houses meeting rooms and the Steelworkers Union Office and Catering
and Conference Services for the University.

Level 4 South houses the University's Administrative Offices.
Level 5 North houses the University Club (formerly the Faculty Club), the Graduate Students' Association and the Older-Than-Average Students Lounges. Other facilities include the Graduate Students' Association Administrative Office, the Chapel and the Professional Staff Association.

Level 5 South houses the University's Financial Services, Purchasing and Human Resources Departments.

The University Centre is a meeting place for people engaged in a wide spectrum of activities. It is the focal point or "living room" for the University Community and was built for the benefit of its many user groups.

The University Club (formerly the Faculty Club), the Graduate Students' Association and the Older-Than-Average Students have lounges on Level 5 of the University Centre. Other facilities include the Music Practice Room. Administrative offices are located on Levels 3, 4 and 5 of the University Centre including the Office of Registrarial Services, Office of Student Affairs, Cooperative Education Services, Counselling and Student Resource Centre and Financial Services. The University Centre is a meeting place for people engaged in a wide spectrum of activities. It is the focal point or "living room" for the University Community and was built for the benefit of its many user groups.

**University Governance**

The University of Guelph was incorporated by an Act of the Ontario Legislature in 1964. The Act specifies that control of the University lies with the Board of Governors and the Senate.

The Board of Governors is comprised of 24 members, including the Chancellor, the President and Vice-Chancellor, 4 persons named by the Lieutenant Governor in Council, and 18 other persons appointed by the Board, of whom 3 are faculty members named by Senate, 3 are alumni, 2 are undergraduate students elected by the undergraduate student body, 1 is a graduate student elected by the graduate student body; and 2 are non-teaching staff members (1 of whom is also an alumnus), elected by University non-teaching staff. The Board is responsible for the government, conduct, management and control of the University and its properties, revenues and expenditures, and business affairs.

The Senate has 173 members. 61 are ex-officio, including the Chancellor, the President, the Provost and Vice-President (Academic), the Vice-President (Research), the Associate Vice-President (Academic), the Associate Vice-President (Student Affairs), the Associate Vice-President (Research), Associate Vice-President (Research, Agri-Food & Partnerships), the Registrar, Deans and Associate Deans, Directors of Schools, Directors of Faculties, Chairs of Departments, the Chief Librarian, the Director of Open Learning, the Director of the Centre for International Programs, the Academic Commissioner of the Central Student Association, the President of the Graduate Students' Association and the Secretary of Senate; 62 are faculty members elected on a college basis; 28 are undergraduate students elected by programs on the basis of 1 for each 500 students enrolled; 7 are graduate students elected from and by the graduate students of each college and the School of Rural Planning and Development on the basis of 1 for each 500 students enrolled; 8 are alumni elected by the Alumni Association, 3 are non-university members chosen by and from the Board of Governors, 1 is a representative of the University of Guelph Faculty Association, 2 are representatives of staff and 1 is a representative of the Librarians. The Senate has responsibility for educational policy, including the creation of faculties, departments, schools and institutes; courses of study and standards of admission and continuation of study; qualifications for and granting of degrees, including honorary degrees, and of diplomas; examinations and examiners, fellowships, scholarships and bursaries; and for the election of the Chancellor.

**University I.D. Cards**

A University I.D. Card is issued to each student registered at the University. The following regulations apply:

1. The University of Guelph Card must have: the University of Guelph logo; the cardholder's surname, initials and identification number; a colour photograph of the cardholder; the cardholder's signature; a bar code for Library check-out privileges; a magnetically encoded stripe on the back of the card; and a brief summary of the rules and regulations for use of the card.

2. The Card is the property of the University of Guelph and may only be used for identification purposes.

3. The Card is not transferable and the cardholder will be responsible for all use made of the Card unless and until written notice is received by Undergraduate Program Services, Office of Registrarial Services.

4. Presentation of the Card will be required before certain University services will be extended. University services may be denied to an individual who does not present a valid card.

5. The Card may not be retained as collateral for any University service except for those services holding and displaying a permit, signed by the Registrar authorizing the withholding of the student, faculty or staff identification card for short periods while that person is utilizing the services offered.

6. A University Card will be issued to each new student. New students who do not obtain a card must contact Undergraduate Program Services, Office of Registrarial Services, Level 3, University Centre for assistance.

7. Loss or finding of the University Card should be reported to Undergraduate Program Services, Office of Registrarial Services, Level 3, University Centre, during regular University office hours. At other times, a preliminary notification may be made during Library hours at the Circulation Information Desk on the main floor of the Library.

8. Replacement charge is $20.00.
## XV. Summary of Attendance

### November 1, 2004 Enrolment Statistics and Systems, Office of Registrarial Services

#### UNDERGRADUATE PROGRAMS (UG) - FULL-TIME

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#### UNDERGRADUATE PROGRAMS (UG) - PART-TIME

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#### GUELPH-HUMBER UNDERGRADUATE PROGRAMS (UGH) - Full-Time

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TOTAL UNIVERSITY ENROLMENT 19,982

UGH Part-Time Enrolment 1,366
Total UGH Enrolment 17,927

Non-Degree 1,916
Total UG and UGH Enrolment 19,982
XVI. Administration and Faculty

Administration and Faculty

The Board of Governors

The Honourable Lincoln M. Alexander, Chancellor, Hamilton
D.L. Derry, Chair, Caledon
R. Burak, Vice-Chair, Toronto
B.N. Allan, Secretary, Guelph
B. Allan, Guelph
K. Bardswick, Guelph
T. Bilyea, Toronto
S. Brown, Guelph
C.J. Clark, Toronto
M.E. Flynn, Toronto
J. Guss, Mississauga
S. Hiltz, Guelph
A. Jones, Guelph
G.S. Kilgour, Mississauga
J. Lozon, Toronto
R.L. Norris, Guelph
N. Schmidt, Guelph
A.J.S. Summerlee, President, Guelph
B. Teesdale, Guelph
H. Vander Pol, Blenheim
R. White, Guelph

Honorary Fellows of the University

A.P. Auger, Guelph
W. Brock, Toronto
C.H. Franklin, Toronto
N.W. Hoag, Guelph
T.L. Jones, Toronto
L.M. Kerr, Chatham
M.H.M. MacKinnon, Guelph
E.B. MacNaughton, Guelph
A.R. Marchment, Toronto
B.C. Matthews, Waterloo
T.A. McEwan, Mississauga
A.G. Misener, Niles, Illinois, U.S.A.
K. G. Murray, Kitchener
N.O. Nielsen, Guelph
J.C. Rennie, Guelph
N.R. Richards, Guelph
R.S. Ritchie, Ottawa
K. Ronald, Guelph
J.W. Skinner, Guelph
C.M. Switzer, Guelph
J.M. Wardlaw, Guelph
W.C. Winegard, Guelph

Medal of Merit

H.D. Ayers, Guelph
G.D. Bedell, Camden, Maine, U.S.A.
M. Beverley Burton, Guelph
H.G. Downie, Guelph
F.D. Horney, Guelph
T.J. Hulland, Guelph
J.L. Hunt, Guelph
B.M. McCraw, Guelph

John Bell Award

W.T. Dickinson, Guelph
T.F. Funk, Guelph
T.J. Gillespie, Guelph
G.L. Lange, Guelph
T.E. Michaels, Guelph
A.L. Middleton, Guelph
D.M. Prescott, Guelph
G.A. Stelter, Guelph
R.R. Stolz, Guelph
H.J. Swatland, Guelph

The Lincoln Alexander Medal of Distinguished Service

G.L.E. Nixon, St. Catharines
H. Vander Pol, Blenheim
S. Surgeoner, Fergus

Administrative Officers

Office of the President

A.J.S. Summerlee, President and Vice-Chancellor, B.SC., B.V.S.C., PH.D. (BRISTOL), MRCVS
V. Hodgkinson, Executive Assistant, B.A. (YORK, CAN.)

Office of Resource and Planning Analysis

G. Craney, Director, B.A. (W.ONT), M.A. (TOR.)
C.A. Beattie, Research Associate, B.SC. (GUELPH)
M. Kupferschmidt, Research Associate, B.A. (GUELPH)
M. Conrad, Research Associate, B.E.S. (WATERLOO), M.S.C. (MCMASTER), PH.D. (QUEENS)

Office of the Provost and Vice-President (Academic)

M. Mancuso, Provost and Vice President (Academic), B.A. (MCM.), M.A. (CAR.), D.PHIL., (OXF.)
A. Shepard, Associate Vice-President (Academic), B.A. (ST. OLAF), PH.D. (VIRGINIA)
A. Whiteside, Associate Vice-President (Student Affairs), B.A., M.A. (GUELPH)
T. Alberico, Executive Assistant to the Provost, B.SC. (GUELPH), CHRP.
I. Birrell, Secretary of Senate, B.A. (TOR.)
S.G. Dorr, Co-ordinator of the Undergraduate Academic Information Centre, B.A. (GUELPH)
I.W. Heathcote, Dean of Graduate Studies, Director of the Institute for Environmental Policy and Professor (Joint appointment between the School of Engineering and the Faculty of Environmental Sciences), B.SC. (TOR.), M.S., PH.D. (YALE)
K. Revington, Co-ordinator of Undergraduate Curriculum, B.A. (QU.), ED.M. (BOSTON)
M. Ridley, Chief Information Officer, B.A. (GUELPH), M.A. (NEW BR.), M.L.S. (TOR.)
N.E. Robinson, Manager of Faculty Recruitment and Retention, B.A., M.A. (TOR.)

Educational Research Development Unit

F.T. Evers, Director, B.SC. (CNELLI), M.SC., PH.D. (IOWA STATE)
J. Mitchell, Manager, B.A., M.A. (GUELPH)

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Glossary

Academic Evaluation
The Academic Evaluation Report is a report of a student's academic progress towards the completion of a specified program and specialization.

Academic Sanction
Academic sanction is the penalty applied to students who fail to make payment, or suitable arrangements for payment, of their University account. Students on academic sanction may not receive semester examination results or official transcripts; may not receive clearance to graduate; and/or may not be allowed to register for a subsequent semester.

Academic Session
See Academic Term.

Academic Term
An academic term is an independent academic period of 15 weeks, half of an academic year. Also referred to as a semester (see definition below).

Academic Year
An academic year is two semesters; undergraduate traditionally classified as first year (freshman), second year (sophomore), third year (junior), or fourth year (senior). Under the semester system this classification has less meaning than under a whole year system but is occasionally used to indicate the level at which a student has arrived.

Add Period
The add period takes place at the beginning of the semester where students are permitted to add courses for the current semester.

Assigned Grade
An assigned grade is a numerical grade based on the instructor's recommendation and granted at the discretion of the Program Committee to students who have not completed course requirements.

Audit
An audit is registration in a course for which degree or diploma credit is not sought. Audited courses are not reported on the official transcript or academic record.

Baccalaureate
Baccalaureate refers to an undergraduate degree awarded by the University upon successful completion of the requirements of a program.

Class Days
Class days are used to express deadlines. Class days are calculated from the start of the regular class schedule. (See Schedule of Dates).

Class Level
Class level is a determination of a student's progression in an academic program by credit weights with increments of 2.50.

Clearance to Graduate
Clearance to graduate denotes that an applicant for graduation has satisfied all program requirements and is recommended for graduation.

Compassionate Grounds
Compassionate grounds are reasons of a serious personal nature which, subject to the approval of a committee or authorized person, justifies a variation of the rules in the case of a particular student.

Concurrent Course
A concurrent course must be taken concurrently with (if not taken prior to) another specified course.

Core course
A core course is one which is listed in a schedule of studies in the Undergraduate Calendar and identified as a required course for a program.

Corequisite
A corequisite is a course where the content is integrated with that of another course such that the courses must be taken simultaneously.

Course
A course is an organized unit of study extending over a semester, (e.g. Economics ECON*1100).

Course Attempt
A course attempt reflects the situation where a student has completed courses either satisfactorily or unsatisfactorily.

Course Equate
Equate indicates a course identical to the one under which it is listed. The course may have been re-numbered or may be cross-listed under two subject areas. Students will not be permitted to register in equated courses.

Course Level
Course level denotes the seniority of a course. 1000-level and 2000-level courses are considered first and second year courses. 3000-level and 4000-level courses are considered senior level courses.

Course Load
Course load denotes the total weight of the credits in which a student is enrolled determining part-time or full-time status.

Course Restriction
A restriction is a "rule" that is placed on the computer system (Colleague) at the direction of an academic department so that particular students may not register in particular courses. The course may be restricted because there is sufficient overlap in content with another course so that it is inappropriate for the student to take a similar course for credit. In a different instance, the course may be restricted by "Instructor Consent" so that the student must discuss the special requirements of the course with the instructor before enrolling. Or, alternatively, the restriction may reflect a "Priority Access" designation for enrollment management purposes. (See Priority Access).

Course Section
A course section is a subgroup of a course that denotes time and location.

Course Selection
Course selection is the process by which students select course sections for the succeeding semesters.

Credit
A credit is a unit of academic measurement equivalent to a single-weighted one-semester course.

Credit Standing
Credit standing (CRD) denotes that the student has successfully completed a course, but was not assigned a numerical grade.

Cumulative Average
Cumulative Average is calculated by dividing the weighted course total by the total credit attempts over all semesters.

Deferred Privilege
A deferred privilege (DEF) is a temporary extension of time granted at the discretion of a Program Committee to a student for completion of the requirements of a course, normally for illness or compassionate reasons.

Diploma Program Calendar
The Diploma Program Calendar is an annual publication containing official information about Associate Diploma Programs and regulations of the University of Guelph and its colleges at Alfred, Kemptville, and Ridgetown. Sometimes called the Diploma Catalogue or Bulletin.

Double-weighted Course
A double-weighted course is a course that is taken in 1 semester, but counts as 2 succeeding semesters.

Drop Period
The drop period for single semester courses starts at the beginning of the add period and extends to the 40th class day where students are permitted to drop a course for the current semester.

Elective
An elective is a course, acceptable within the program but chosen at the discretion of the student.

Equate - see Course Equate

Faculty Advisor

Last Revision: October 18, 2005
See Chapter VII - Academic Advising.

**Grade Report**
A grade report is released by the Registrar to each student at the conclusion of a semester via WebAdvisor. It notes the courses attempted and the grades assigned (if applicable).

**Hiatus**
See Withdrawal.

**In-course Student**
In-course refers to a student enrolled in a program of study at the University.

**Instructor Notification**
Courses that are declared instructor notification on the course outline require departmental approval to be dropped.

**Mailing Address**
The mailing address is a temporary address used for mailing if one is recorded; otherwise the home address is used.

**New Student**
New student refers to a student who has never before been registered at the University of Guelph.

**Prerequisite**
A prerequisite is a prior requirement for entry into a course. Where a course is specified as a prerequisite, pass standing in the course is required.

**Priority Access**
Priority Access is the process by which a department implements course restriction rules in order to limit registration in a course where enrolment demand habitually exceeds course capacity and where there is demonstrated need to restrict access to a particular cohort of students on a priority basis. In general, course restrictions are clearly defined in the calendar course listings so that students are advised in advance of the intended audience for the course.

**Program**
A program is a structure of courses leading to a University degree (e.g. B.A.Sc. program).

**Program Counsellor**
See Chapter VII - Academic Advising.
The program counsellor is someone who assists students in the development of educational plans which are realistic and compatible with their life goals by helping to identify and assess alternatives and consequences of decisions, and providing interpretation of regulations applying to the specific degree program.

**Registration**
Registration is the official enrolment of students in the University for a particular semester, and includes the selection of course sections and the payment of tuition fees and, where appropriate, other University fees.

**Required to Withdraw (see Rustication)**

**Restricted Elective**
A restricted elective is a course which must be chosen from a stated group of courses to satisfy the program requirements.

**Restriction - see Course Restriction**

**Rustication**
A defined period of time during which the student is not eligible to register in their current academic program as a result of an academic review decision. After the period of rustication the student must apply for re-admission to the University of Guelph.

**Schedule of Dates**
The schedule of dates is a list of significant dates at the University, approved by Senate.

**Schedule of Studies**
A schedule of studies is the requirements for specializations, majors, minors, and various levels of concentration of study within a degree program, including programs without specialization. Schedules of studies are completed within a specific degree program and must normally be declared by the start of semester 3. Students need to be aware that progress within a program and graduation with a degree from that program depends upon a) the degree program requirements, and b) the requirements for the declared schedule of studies.

**Semester**
A semester is an independent academic period of 15 weeks, half of an academic year; similar to a term at other universities. Summer semester is from May to August. Fall semester is from September to December. Winter semester is from January to April.

**Semester Average**
Semester Average is calculated by dividing the weighted course total by the total credit attempts in the semester.

**Semester Level**
See Class Level.

**Session**
A session is an academic period of 7 weeks within the Summer semester, including 6 weeks of classes and 1 week of examinations. Courses presented during a session will be equivalent to a regular semester offering.

**Specialization**
For specialization see schedule of studies.

**Subject**
A subject is a defined sector of study composed of 1 or more courses within a discipline.

**Summer Session**
Summer Session is scheduled during May, June.

**Supplemental Privilege**
Supplemental privileges are granted at the discretion of the Program Committee, affording a student who has received a failing grade on the original course attempt, the opportunity to obtain credit for the course while retaining the original failing grade.

**Transcript**
A transcript is an official document prepared by the Registrar recording a student's courses and grades.

**Two-Semester Course**
A two-semester course is a course that is taken over 2 continuous semesters and counts as 2 course attempts for classification, continuation of study and calculation of fees. Two semester courses cannot be split.

**Undergraduate Calendar**
The undergraduate calendar is an annual publication containing official information about the undergraduate academic programs and regulations of the University.

**Weighted Course Total**
Weighted Course Total is the sum of the credit weights multiplied by the grade received in each course.

**Withdrawal**
Withdrawal of registration for an academic term after the start of classes.

**Withdrawal with Failure**
Withdrawal with failure may be applied to a course or an academic term. The notation "WF" will appear against the course(s) in the grade field on the official transcript.
Revisions

On the basis of information received from program committees, colleges or departments the 05-06 Undergraduate Calendar includes the following revisions:

Note
Those who may have used the PDFs to download and print off these calendar sections are advised to re-print the revised sections accordingly. Please be aware sectioning, page numbering, table of contents may have changed.

February 1, 2005
Initial publication of the 2005-2006 Undergraduate Calendar.

February 28, 2005
This second publication includes the following revision:

Chapter XII Course Descriptions
Deletion of NURT*3190 and NUTR*4020.

Chapter XVI Administration and Faculty
Changes and updates to various listings.

Chapter VIII Undergraduate Degree Regulations and Procedures - Scheduling
Deletion of the following sections:
• Course Offerings
• Scheduled Meeting Times
• Section Changes

April 8, 2005
This third publication includes the following revision:

Chapter VI Schedule of Fees - University Fees - Other University Fees
Updating Other University Fees from 2003-2004 to 2004-2005 rates.

May 20, 2005
This fourth publication includes the following revision:

Chapter XII - Course Descriptions - French Studies
FREN*1110 - removal of line (Offered through distance education format only).

July 19, 2005
This fifth publication includes the following revision:

Changing of department name from Human Biology and Nutritional Sciences to Human Health and Nutritional Science.

September 28, 2005
This sixth publication includes the following revision:

Schedule of Dates -- Winter 2006 Convocation Period
• The Winter 2006 convocation will now run from Monday, February 20 through to Thursday, February 23, 2006. (Changed from Wednesday, February 22 to Thursday, February 23, 2006.)

October 18, 2005
This seventh publication includes the following revision:

VIII Undergraduate Degree Regulations and Procedures -- Academic Misconduct