2019-2020 Graduate Calendar

The information published in this Graduate Calendar outlines the rules, regulations, curricula, programs and fees for the 2019-2020 academic year, including the Summer Semester 2019, Fall Semester 2019 and the Winter Semester 2020.

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

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

The University is a full member of:

• Universities of Canada

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Disclaimer

The Office of Graduate and Postdoctoral Studies has attempted to ensure the accuracy of this on-line Graduate Calendar. However, the publication of information in this document does not bind the university to the provision of courses, programs, schedules of studies, fees, or facilities as listed herein.

Limitations

The University of Guelph 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 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 the faculty, staff or students of the university or by others, civil unrest or disobedience, Public Health Emergencies, or any other cause of any kind beyond the reasonable control of the university.

The University of Guelph reaffirms section 1 of the Ontario Human Rights Code, 1981, which prohibits discrimination on the grounds of race, ancestry, place of origin, colour, ethnic origin, citizenship, creed, sex, sexual orientation, handicap, age, marital status or family status.

The university encourages applications from women, aboriginal peoples, visible minorities, persons with disabilities, and members of other under-represented groups.

Introduction

Collection, Use and Disclosure of Personal Information

Personal information is collected under the authority of the University of Guelph Act (1964), and in accordance with Ontario's Freedom of Information and Protection of Privacy Act (FIPPA) http://www.e-laws.gov.on.ca/DBLaws/Statutes/English/90f31 e.htm. This information is used by University officials in order to carry out their authorized academic and administrative responsibilities and also to establish a relationship for alumni and development purposes. Certain personal information is disclosed to external agencies, including the Ontario Universities Application Centre, the Ministry of Advanced Education and Skills Development, and Statistics Canada, for statistical and planning purposes, and is disclosed to other individuals or organizations in accordance with the Office of Registrarial Services Departmental Policy on the Release of Student Information. For details on the use and disclosure of this information call the Office of Registrarial Services at the University at (519) 824-4120 or see https://www.uoguelph.ca/registrar/

Statistics Canada - Notification of Disclosure

For further information, please see Statistics Canada's web site at http://www.statcan.gc.ca and Section XIV Statistics Canada.

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 means of communication with the student and will be used for correspondence from the University. Students are responsible for monitoring their University-issued email account regularly.

Home Address

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

Name Changes

The University of Guelph is committed to the integrity of its student records, therefore, each student is required to provide either on application for admission or on personal data forms required for registration, their complete, legal name. Any requests to change a name, by means of alteration, deletion, substitution or addition, must be accompanied by appropriate supporting documentation.

Student Confidentiality and Release of Student Information Policy Excerpt

The University undertakes to protect the privacy of each student and the confidentiality of their record. To this end the University shall refuse to disclose personal information to any person other than the individual to whom the information relates where disclosure would constitute an unjustified invasion of the personal privacy of that person or of any other individual. All members of the University community must respect the confidential nature of the student information which they acquire in the course of their work.

Complete policy at https://www.uoguelph.ca/secretariat/office-services/university-secretariat/university-policies_.

Learning Outcomes

Graduate Degree Learning Outcomes

On May 27, 2013, the University of Guelph Senate approved the following five University-wide Learning Outcomes as the basis from which to guide the development of graduate degree programs, specializations and courses:

- 1. Critical and Creative Thinking
- 2. Literacy
- 3. Global Understanding
- 4. Communication
- 5. Professional and Ethical Behaviour

These learning outcomes are also intended to serve as a framework through which our educational expectations are clear to students and the broader public; and to inform the process of outcomes assessment through the quality assurance process (regular reviews) of programs and departments.

An on-line guide to the learning outcomes, links to the associated skills, and detailed rubrics designed to support the development and assessment of additional program and discipline-specific outcomes, are available for reference on the <u>Learning Outcomes website</u>

Critical and Creative Thinking

Critical and creative thinking is a concept in which one applies logical principles, after much inquiry and analysis, to solve problems with a high degree of innovation, divergent thinking and risk taking. Those mastering this outcome show evidence of integrating knowledge and applying this knowledge across disciplinary boundaries. Depth and breadth of understanding of disciplines is essential to this outcome. At the graduate level, originality in the application of knowledge (master's) and undertaking of research (doctoral) is expected. In addition, Critical and Creative Thinking includes, but is not limited to, the following outcomes: Independent Inquiry and Analysis; Problem Solving; Creativity; and Depth and Breadth of Understanding.

Literacy

Literacy is the ability to extract information from a variety of resources, assess the quality and validity of the material, and use it to discover new knowledge. The comfort in using quantitative literacy also exists in this definition, as does using technology effectively and developing visual literacy.

In addition, Literacy, includes, but is not limited to, the following outcomes: Information Literacy, Quantitative Literacy, Technological Literacy, and Visual Literacy.

Global Understanding

Global understanding encompasses the knowledge of cultural similarities and differences, the context (historical, geographical, political and environmental) from which these arise, and how they are manifest in modern society. Global understanding is exercised as civic engagement, intercultural competence and the ability to understand an academic discipline outside of the domestic context.

In addition, Global Understanding includes, but is not limited to, the following outcomes: Global Understanding, Sense of Historical Development, Civic Knowledge and Engagement, and Intercultural Competence.

Communication

Communication is the ability to interact effectively with a variety of individuals and groups, and convey information successfully in a variety of formats including oral and written communication. Communication also comprises attentiveness and listening, as well as reading comprehension. It includes the ability to communicate and synthesize information, arguments, and analyses accurately and reliably.

In addition, Communication includes, but is not limited to, the following outcomes: Oral Communication, Written Communication, Reading Comprehension, and Integrative Communication.

Professional and Ethical Behaviour

Professional and ethical behaviour requires the ability to accomplish the tasks at hand with proficient skills in teamwork and leadership, while remembering ethical reasoning behind all decisions. The ability for organizational and time management skills is essential in bringing together all aspects of managing self and others. Academic integrity is central to mastery in this outcome. At the graduate level, intellectual independence is needed for professional and academic development and engagement.

In addition, Professional and Ethical Behaviour includes, but is not limited to, the following outcomes: Teamwork, Ethical Reasoning, Leadership, Personal Organization and Time Management, and Intellectual Independence.

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22 IV. Degree Regulations

IV. Degree Regulations

The University regulations for all Doctor of Philosophy (PhD), Doctor of Veterinary Science (DVSc), Master's degrees (by thesis or by coursework), and Graduate Diplomas (GDIP) are described in this section.

University regulations, as specified herein, are minimum requirements. Individual degree programs may have additional and/or more stringent requirements than those described in this section. Students are responsible for consulting the specific program in this calendar regarding any such regulations.

Doctor of Philosophy

Admission

There are three means of entry to PhD study:

- An applicant who holds a recognized master's degree obtained with high academic standing may be admitted to PhD studies as a regular or provisional student.
- An applicant who has achieved excellent standing at the honours baccalaureate level and who wishes to proceed to doctoral study may enrol, in the first instance, in a master's degree program. If the student achieves a superior academic record and shows a particular aptitude for research, the Board of Graduate Studies, on the recommendation of the department, may authorize transfer to the PhD program without requiring the student to complete the master's degree. The application for transfer must be made between the end of the second semester and the end of the fourth semester.
- At the applicant's request, some departments may choose to recommend to the Board
 of Graduate Studies direct admission to the PhD program after completion of an
 honours baccalaureate with high (first-class) standing and demonstration of research
 promise. Information on direct admission and procedures to be followed is available
 from the Office of Graduate and Postdoctoral Studies.

Minimum Duration

At least five semesters of full-time study must be devoted to the doctoral program following completion of a recognized master's degree. At least seven semesters are required for those who are permitted to proceed from the honours baccalaureate without completing the master's degree. For a student registered part-time, the minimum duration period is nine part-time semesters for those with a recognized master's degree, and ten part-time semesters for those who are permitted to proceed from the honours baccalaureate without completing the master's degree.

Completion

Normally, a thesis must be formally submitted (see Submission of Thesis) or the program otherwise completed, within twelve semesters see Program Duration. Candidates must understand, however, that announced departmental policy may require completion of the degree requirements within a briefer time period.

Advising

The Advisory Committee will consist of no fewer than three members of the graduate faculty in whose selection the graduate student normally participates. It is recommended that one of the committee members be from a department other than the one in which the student is registered. The committee chair is normally the Advisor of the student's research, and is nominated by the Department Chair. The Advisory Committee must be established and the Advisory Committee Appointment form submitted to the Office of Graduate and Postdoctoral Studies not later than the 20th class day of the second registered semester.

Courses

The PhD degree is primarily a research degree; for that reason course work commonly comprises a smaller proportion of the student's total program than is the case at the master's level.

Prescribed Courses: Some departments may designate that certain courses be taken as part of the student's background in their discipline. Other courses may be designated because of the close relationship to the research topic. It is such substantive courses that should comprise the prescribed courses in which the candidate must obtain an overall weighted average of at least 'B-' standing (see Establishment of Program and Prescribed Studies).

Additional Courses: In addition to the prescribed courses, it is not unusual for the student to complete ancillary courses supportive of the discipline and special field. The language requirement of some departments may be most readily met by some students by completing one or more courses in the language concerned (see entry for Departments of French Studies and Languages). These courses would not be regarded as prescribed. It is highly recommended that students admitted to a doctoral program directly from an honours baccalaureate complete at least 0.5 graduate level course credits.

Research

In the total program of a doctoral student, it is expected that the major part of the student's time will be devoted to research for their thesis. The research proposal should be formulated as early as possible and presented to the Advisory Committee for approval. When it is necessary for the research, or some part of it, to be conducted off-campus, the arrangements are subject to the prior approval of the Assistant Vice-President (Graduate Studies).

Qualifying Examination

As early as possible and in no case later than the final semester of the minimum duration requirement (the 5th semester for a full-time student), the student is required to pass an examination to assess their knowledge of the subject area and related fields. The examination ordinarily will be in several parts (written and/or oral) and should be completed within a two-week period if possible.

The Qualifying Examination is an examination by the academic unit in which the student is enrolled (as distinct from an examination by the Advisory Committee). Upon completing it satisfactorily, the student is deemed to have met the departmental standards and becomes a candidate for the PhD degree. The examining committee, appointed by the Chair or Director of the academic unit concerned, consists of five members:

- The Chair/Director of the academic unit (or designate) or the Chair of the Graduate Program Committee, who acts as Chair of the examination committee except when this person is also a member of the advisory committee. In that event, the Chair will designate another member of the regular graduate faculty of the unit to chair the examination:
- Two members, normally of the regular or associated graduate faculty who are not members of the Advisory Committee;
- Two members of the Advisory Committee;
- Normally, at least one of the Qualifying Examination committee members must be from outside the department/discipline in which the student is registered. That person may be a member of the Advisory Committee.

Note

The Chair serves to administer the examination according to the approved format of the program. The Chair does not serve as an additional examiner. In unforeseen circumstances where a committee member is unable to attend, the Chair will attempt to receive questions to ask on behalf of the absent member, to be answered by the student to the satisfaction of the examiners.

As a Qualifying Examination, consideration is to be given not only (1) to the student's knowledge of the subject matter and ability to integrate the material derived from their studies, but also (2) to the student's ability and promise in research. The Examination Committee, therefore, will receive from the Advisory Committee a written evaluation of the quality of the student's research performance to date and of the student's potential as a researcher. The Examination Committee will determine the relative importance to be given to these two major components of the Qualifying Examination.

The student is deemed to have passed the Qualifying Examination if not more than one of the examiners votes negatively. An abstention is regarded as a negative vote. The results of the Qualifying Examination will be reported to the Assistant Vice-President (Graduate Studies) through the Chair of the academic unit. The report to the Assistant VP will record the decision as unsatisfactory or satisfactory. The Office of Graduate and Postdoctoral Studies will register the student in UNIV*7000 and record the result of the report. If it is unsatisfactory, the student may be given a second attempt at the examination. A student who fails the Qualifying Examination and who is being given a second opportunity to pass the examination will be required to repeat it no later than six months after the failed attempt. Academic units may impose a shorter time limit. A second failure constitutes a recommendation to the Board of Graduate Studies that the student be required to withdraw (see Unsatisfactory Progress and Appeals of Decisions.

Thesis

Each candidate shall submit a thesis, written by the candidate, on the research carried out by the candidate on an approved topic. The thesis is expected to be a significant contribution to knowledge in its field and the candidate must indicate in what ways it is a contribution. The thesis must demonstrate mature scholarship and critical judgement on the part of the candidate and it must indicate an ability to express oneself in a satisfactory literary style. Approval of the thesis is taken to imply that it is judged to be sufficiently meritorious to warrant publication in reputable scholarly media in the field.

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External Examiner

For each doctoral thesis an External Examiner from outside the University is appointed on behalf of the Assistant Vice-President (Graduate Studies) by the Department Chair, in consultation with the Advisor. The External Examiner must not have served as Advisor to the student's Advisor or have been a trainee of the Advisor in the last six years, must not have directly collaborated in joint projects or co-authored publications with the Advisor or the student in the last six years, and must not have an existing plan to collaborate with the Advisor or the student. In addition, the External Examiner must not have been a student or member of the graduate faculty at the University in the last five years. The nomination will be made when the candidate's Advisor declares that the thesis is about to be prepared, normally no later than the beginning of the student's last semester. The External Examiner will submit a written appraisal of the thesis (at least seven days prior to the examination) to the Chair of the Department who will then provide these comments to the candidate and the Advisory Committee. The External Examiner is expected to participate in the final oral examination and to assist in evaluating all aspects of the candidate's performance. Any individual who serves as an External Examiner may not serve again until a period of 3 years has passed.

Procedures

The thesis may be submitted at any time of the year, but candidates are advised to allow ample time for revision and examination. A copy of the schedule of deadlines should be obtained from the Office of Graduate and Postdoctoral Studies by the candidate no later than the beginning of the semester in which the candidate intends to graduate.

It is understood that, as the thesis is being written, the candidate will be in regular communication with the Advisory Committee. When a draft is completed that the Advisory Committee recommends for examination, the candidate, with the endorsement of the Department Chair, formally requests an examination. A copy of the final draft is then sent to the External Examiner as fair copy of the thesis. Arrangements for the final oral examinations are made. It is understood that as a result of the final oral examination corrections may be necessary to produce a revised final draft of the thesis.

Final Oral Examination

The final oral examination is devoted chiefly, but not necessarily entirely, to the defence of the doctoral thesis. It is a faculty (as distinct from a departmental) examination, for which the arrangements are made by the department on behalf of the faculty in consultation with the Office of Graduate and Postdoctoral Studies.

The examination is conducted by a committee consisting of five members:

- A member of the regular graduate faculty who is not a member of the Advisory Committee appointed to act as Chair by the Department Chair on behalf of the Assistant Vice-President (Graduate Studies);
- The External Examiner;
- A member of the regular graduate faculty, who is not a member of the Advisory Committee, selected by the departmental Graduate Program Committee;
- Two members of the student's Advisory Committee, selected by the Advisory Committee.

Note

The Chair serves to administer and ensure the proper conduct of the examination. The Chair is expected to exercise full control over the proceedings and does not participate directly in questioning the candidate during the examination. In unforeseen circumstances where an examiner is unable to attend due to sudden illness, accident, etc., the Chair will attempt to receive questions to ask on behalf of the absent member, to be answered by the student to the satisfaction of the examiners.

The Assistant Vice-President (Graduate Studies), or a designate, may attend a part or all of the examination. The examination is open to the public but members of the audience may question the candidate only upon invitation of the Chair of the Examination Committee.

The members of the Examination Committee, including the External Examiner, report individually on the final examination and the thesis. The candidate is deemed to have passed if no more than one of the four examiners votes negatively. An abstention is regarded as a negative vote. Concurrently, the members sign the Certificate of Approval, which is submitted with the approved thesis in its final form to the Assistant Vice-President (Graduate Studies) via the Office of Graduate and Postdoctoral Studies (see Submission of Thesis) where the decision of satisfactory or unsatisfactory will be recorded. If unsatisfactory, the candidate may be given a second attempt. A second unsatisfactory result constitutes a recommendation to the Board of Graduate Studies that the student be required to withdraw (see Unsatisfactory Progress and Appeals of Decisions).

Copies of Thesis

One electronic (.pdf) copy of the certified thesis must be submitted to the Atrium by the thesis submission deadline date shown in the Schedule of Dates in the calendar. Also included in the electronic submission must be a copy of an abstract consisting of no more than 350 words. The Certificate of Approval signed by the External Examiner and the members of the Examination Committee, a copy of the circulation waiver and the copying license must also be submitted to the Office of Graduate and Postdoctoral Studies. Departments may have a requirement to submit a bound copy of the thesis.

Publication

The Certificate of Approval indicates that the thesis is suitable for publication. The university requires publication of the thesis in the following manner:

One electronic copy of the thesis is uploaded by the National Library of Canada, and the agreement form signed by the candidate authorizing the National Library to publish the thesis and to make copies available for sale on request. The National Library will upload the thesis exactly as it is and will list the thesis in Theses Canada as a publication of the National Library.

An abstract of not more than 350 words, prepared by the author and approved by the Advisor and submitted as part of the electronic thesis submission, is also uploaded by the National Library.

The National Library's <u>Theses Non-Exclusive License</u> will be sent to the candidate prior to the final oral examination, to be signed and submitted to the Office of Graduate and Postdoctoral Studies immediately after the successful completion of the examination.

The candidate, in consultation with the Advisor and the Department Chair, shall have the right to request that circulation and/or copying of the thesis in any form be withheld for up to one year.

Publication in the above manner does not preclude publication of all or part of the thesis in journals or in book form.

Departmental Regulations

Individual departments may have specified regulations in addition to those described in this calendar. The student is responsible for consulting the department concerning any such regulations. University regulations, as specified herein, take precedence and may not be overruled by any department regulations.

Doctor of Veterinary Science

Admission

- The normal basis for admission to DVSc studies as a regular or a provisional student is a DVM or equivalent degree which would allow the applicant to be eligible for licence to practice veterinary medicine in Ontario. The applicant must have achieved high academic standing as set out in the Admission Requirements. If a student enrolled in the graduate diploma program achieves a superior record and shows a particular aptitude for applied studies, the Board of Graduate Studies, on recommendation of the Interdepartmental DVSc Program Committee may authorize transfer to the DVSc program effective in the following semester. The recommendation must be made no later than the end of the second semester.
- An alternative basis for admission is a DVM or equivalent degree plus either an
 acceptable graduate diploma or an acceptable MSc degree or PhD degree, with a 'B'
 average. Students so admitted may be granted credit for two semesters in the DVSc
 program.

Minimum Duration

At least nine semesters of full-time study must be devoted to the doctoral program. Credit may be allowed for up to two semesters of previous graduate study as indicated above. For a student registered part-time, the minimum duration period is fifteen part-time semesters.

Completion

Normally, a thesis must be formally submitted (see Submission of Thesis) or the program otherwise completed, within nine semesters see. Candidates must understand, however, that announced departmental policy may require completion of the degree requirements within a briefer time period.

Advising

Advisory Committee

This committee will consist of no fewer than three members of the graduate faculty. The graduate student normally participates in their selection. At least one of the committee members must be in a department outside the one in which the student is registered. The committee chair is normally the Advisor of the student's program and is nominated by the Department Chair. The Advisory Committee must be established and the Advisory Committee Appointment form submitted to the Office of Graduate and Postdoctoral Studies not later than the 20th class day of the student's second registered semester.

Interdepartmental DVSc Program Committee

This Program Committee, appointed by the Board of Graduate Studies, will consist of one member of the graduate faculty in each of the departments involved, and will be chaired by the Dean of the Ontario Veterinary College or a designate. The program committee will review and make recommendations to the Assistant Vice-President (Graduate Studies) upon all applications for admission; it will review the proposed program of study and the semester evaluation reports of each student (see Department Review); and it will determine the membership of each Qualifying Examination committee. The Program Committee may specify regulations in addition to those set out here, and will be responsible for publicizing them in each department, where the student is responsible for seeking out this information.

Courses

The DVSc degree is an advanced applied degree which requires the acquisition of applied skills and in-service training, and the submission of a thesis based on research investigations in an applied area. Depending upon the background of the individual student, the proportion of time devoted to investigational work normally will be no less than one-third of the total.

Prescribed Studies

The program committee may designate certain courses be taken as part of the student's background in the disciplinary area of specialization. Other courses may be designated because of the relationship to in-service training and applied skills. Such substantive courses comprise the prescribed courses in which the candidate must achieve an overall weighted average of at least 'B-' standing (see Establishment of Program and Prescribed Studies). At least 2.5 credits of prescribed courses must be completed, of which no more than 1.0 credits may be in Special Topics courses. Students who are granted credit for previous graduate study may, with the approval of the DVSc Program Committee and the Assistant Vice-President (Graduate Studies), have the credits from prescribed courses reduced to no fewer than 2.0.

Additional Courses

In addition to the prescribed courses, the student may complete ancillary courses supportive of the discipline and specialty fields.

Program of Study

The program of study will involve course work and research work on a problem with applied aspects. The total program, including the research proposal, should be formulated as early as possible, but in no case later than the end of the second semester. Prepared in consultation with the Advisory Committee, the program is subject to the approval of the Program Committee and, ultimately, the Assistant Vice-President (Graduate Studies). If it is necessary for any part of the program to be conducted off-campus, the arrangements are subject to the prior approval of the Program Committee and the Assistant Vice-President (Graduate Studies).

Each semester, the student's Advisory Committee prepares a written evaluation of the student's performance in course work and of progress in applied skills. The evaluation will be discussed with the student before it is sent to the Program Committee. If the student fails to make satisfactory progress, the Program Committee may recommend to the Board of Graduate Studies that the student be required to withdraw (see Cancellation of Registration).

Qualifying Examination

Prior to the end of the sixth semester, the student is required to pass a Qualifying Examination to assess their overall ability in the selected area of specialization. The examination will be in two parts (one written, one oral), and will normally be completed within a two-week period. Upon satisfactory completion of the examination, the student is deemed to have met the departmental standards and becomes a candidate for the DVSc degree.

The Qualifying Examination is an examination by the academic unit in which the student is enrolled and the Examination Committee is appointed by the departmental Graduate Program Coordinator. The examination is conducted by a committee consisting of five members, as follows:

- The Departmental Graduate Program Coordinator of the Program Committee, who
 acts as chair of the Examination Committee except when this person is also a member
 of the advisory committee. In that event, the Chair will designate another member of
 the regular graduate faculty of the unit to chair the examination;
- Two members, normally of the regular or associated graduate faculty who are not members of the Advisory Committee, at least one of whom must be a member of the department in which the student is registered;
- Two members of the Advisory Committee.

Note

The Chair serves to administer and ensure the proper conduct of the examination. The Chair is expected to exercise full control over the proceedings and does not participate directly in questioning the candidate during the examination. In unforeseen circumstances where an examiner is unable to attend due to sudden illness, accident, etc., the Chair will attempt to receive questions to ask on behalf of the absent member, to be answered by the student to the satisfaction of the examiners.

The Qualifying Examination will primarily assess the student's knowledge of the area of specialization, the basic sciences supporting this area, and to a lesser extent, the student's area of research. The student's general ability to integrate and apply this knowledge is also assessed. In addition, the Examination Committee will take into account a written submission from the student's Advisory Committee evaluating the quality of the student's applied skills and performance to date in the program.

The student is deemed to have passed the Qualifying Examination if not more than one of the examiners votes negatively. An abstention is regarded as a negative vote. The results of the Qualifying Examination will be reported to the Assistant Vice-President (Graduate Studies) through the Chair of the Program Committee. The report to the Assistant VP will record the decision as unsatisfactory or satisfactory. If unsatisfactory, the student may be given a second attempt at the examination. A student who fails the Qualifying Examination and who is being given a second opportunity to pass the examination will be required to repeat it no later than six months after the failed attempt. Academic units may impose a shorter time limit. A second unsatisfactory constitutes a recommendation to the Board of Graduate Studies that the student be required to withdraw (see Unsatisfactory Progress and Appeals of Decision).

Thesis

Each candidate shall prepare a thesis on the approved research project. The thesis is expected to be a significant contribution to knowledge in its field and the candidate must indicate in what ways it is a contribution. The thesis must demonstrate mature scholarship and critical judgement on the part of the candidate and it must indicate an ability to communicate in writing in a satisfactory style.

The thesis will be based on the research project carried out in the DVSc program. Like all theses, it will contain a detailed critical review of the pertinent theoretical and empirical literature and place the work in the context of existing knowledge in the field. The hypotheses, research design, results, and discussion of the results will be presented in normal thesis format as approved by the Faculty of Graduate Studies.

External Examiner

For each doctoral thesis an External Examiner from outside the university is appointed on behalf of the Assistant Vice-President (Graduate Studies) by the Department Chair, in consultation with the Advisor. The External Examiner must not have served as Advisor to the student's Advisor or have been a trainee of the Advisor in the last six years, must not have directly collaborated in joint projects or co-authored publications with the Advisor or the student in the last six years, and must not have an existing plan to collaborate with the Advisor or the student. In addition, the External Examiner must not have been a student or member of the graduate faculty at the University in the last five years. The nomination will be made when the candidate's Advisor declares that the thesis is about to be prepared, normally no later than the beginning of the student's last semester. The External Examiner will submit a written appraisal of the thesis (at least seven days prior to the examination) to the Chair of the department who will then provide these comments to the candidate and the Advisory Committee. The External Examiner is expected to participate in the final oral examination and to assist in evaluating all aspects of the candidate's performance. Any individual who serves as an External Examiner may not serve again until a period of 3 years has passed.

Procedures

The thesis may be submitted at any time of the year, but candidates are advised to allow ample time for revision and examination. A copy of the schedule of deadlines should be obtained from the Office of Graduate and Postdoctoral Studies by the candidate no later than the beginning of the semester in which the candidate intends to graduate.

It is understood that, as the thesis is being written, the candidate will be in regular communication with the Advisory Committee. When a draft is completed that the Advisory Committee recommends for examination, the candidate, with the endorsement of the departmental Chair, formally requests an examination. A copy of the final draft is then sent to the External Examiner as fair copy of the thesis. Arrangements for the final oral examinations are made. It is understood that as a result of the final oral examination corrections may be necessary to produce a revised final draft of the thesis.

Final Oral Examination

The final examination is devoted chiefly, but not necessarily entirely, to the defence of the thesis. It is a faculty (as distinct from a departmental) examination, for which the arrangements are made by the department and the college on behalf of the faculty in consultation with the Office of Graduate and Postdoctoral Studies.

The examination is conducted by a committee consisting of five members, as follows:

- A member of the regular graduate faculty who is not a member of the Advisory Committee appointed to act as Chair by the Department Chair on behalf of the Assistant Vice-President (Graduate Studies);
- The External Examiner;

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- A member of the regular graduate faculty who is not a member of the Advisory Committee, selected by the Department Chair;
- Two members of the student's Advisory Committee, selected by the Advisory Committee.

Note

The Chair serves to administer and ensure the proper conduct of the examination. The Chair is expected to exercise full control over the proceedings and does not participate directly in questioning the candidate during the examination. In unforeseen circumstances where an examiner is unable to attend due to sudden illness, accident, etc., the Chair will attempt to receive questions to ask on behalf of the absent member, to be answered by the student to the satisfaction of the examiners.

The Assistant Vice-President (Graduate Studies), or a designate, may attend part or all of the examination. The examination is open to the public and members of the audience may question the candidate only upon invitation of the Chair of the Examination Committee. The members of the Examination Committee, including the External Examiner, report individually on the final examination and the thesis. The candidate is deemed to have passed if no more than one of the four examiners votes negatively. An abstention is regarded as a negative vote. Concurrently, the members sign the Certificate of Approval, which is submitted with the approved thesis in its final form to the Office of Graduate and Postdoctoral Studies (see Submission of Thesis). The report to the Assistant Vice-President (Graduate Studies) will record the decision as unsatisfactory or satisfactory. If unsatisfactory, the candidate may be given a second attempt. A second unsatisfactory result constitutes a recommendation to the Board of Graduate Studies that the student be required to withdraw (see Unsatisfactory Progress and Appeals of Decisions).

Copies of Thesis

One electronic (.pdf) copy of the certified thesis must be submitted to the Atrium by the thesis submission deadline date shown in the Schedule of Dates in the calendar. Also included in the electronic submission must be a copy of an abstract consisting of no more than 350 words. The Certificate of Approval signed by the External Examiner and the members of the Examination Committee, a copy of the circulation waiver and the copying license must also be submitted to the Office of Graduate and Postdoctoral Studies. Departments may have a requirement to submit a bound copy of the thesis.

Publication

The Certificate of Approval indicates that the thesis is suitable for publication. The university requires publication of the thesis in the following manner:

One electronic copy of the thesis is uploaded by the National Library of Canada, and the agreement form signed by the candidate authorizing the National Library to publish the thesis and to make copies available for sale on request. The National Library will upload the thesis exactly as it is and will list the thesis in Theses Canada as a publication of the National Library.

An abstract of not more than 350 words, prepared by the author and approved by the Advisor and submitted as part of the electronic thesis submission, is also uploaded by the National Library

The National Library's <u>Theses Non-Exclusive License</u> will be sent to the candidate prior to the final oral examination, to be signed and submitted to the Office of Graduate and Postdoctoral Studies immediately after the successful completion of the examination.

The candidate, in consultation with the Advisor and the department Chair, shall have the right to request that circulation and/or copying of the thesis in any form be withheld for up to one year.

Publication in the above manner does not preclude publication of all or part of the thesis in journals or in book form.

Departmental Regulations

Individual departments may have specified regulations in addition to those described in this calendar. The student is responsible for consulting the department concerning any such regulations. University regulations, as specified herein, take precedence and may not be overruled by any department regulations.

Master's Degree by Thesis

Admission

Admission to a master's degree program as a regular student is granted, on the recommendation of the department concerned, to:

- the holder of an honours baccalaureate or its equivalent, as set out in the Admission Requirements; or
- a student who has satisfied the requirements for transfer from the provisional student category.

Individual programs may have additional admission requirements. Before applying, applicants are responsible for consulting the specific program in this calendar regarding such requirements.

Minimum Duration

At least two semesters of full-time study must be devoted to a master's degree program if the student is admitted as a regular student. However, some programs may require a longer minimum duration period. A student admitted as a provisional student requiring two semesters in that category, must spend at least one additional semester as a regular full-time student. For a student registered part-time, the minimum duration period is four part-time semesters.

Completion

Normally, a thesis must be formally submitted (see Submission of Thesis) or the program otherwise completed, within six semesters see. However, some programs may require completion of the degree requirements within a briefer time period.

Advising

The student's program is established and progress kept under review by the academic unit in which the student is enrolled (see Enrolment and Registration). The day-to-day responsibility will rest with the Advisor. There will be an Advisory Committee of at least two graduate faculty members, the chair of which committee is normally the Advisor of the student's program. Departments and schools are encouraged to involve graduate faculty from other academic units as members of Advisory Committees. The Advisory Committee must be established and the Advisory Committee Appointment form submitted to the Office of Graduate and Postdoctoral Studies not later than the 20th class day of the student's second registered semester.

Courses

A master's degree by thesis at the University of Guelph requires the demonstration of a reasonable mastery of a concentrated area/field of study. This is shown by the achievement of satisfactory standings in courses, as determined by the department, and completion of a thesis.

Prescribed Studies

The proportion of weight attached to the research and thesis may vary, even within a department. Accordingly, the number of prescribed courses may correspondingly vary. Where the student's program requires a thesis, the number of course credits will not be fewer than 1.5, and must be made up entirely of graduate level courses. Any courses selected that exceed the 1.5 minimum credits must also be acceptable to the department and the Assistant Vice-President (Graduate Studies) for credit towards the graduate degree. The student must obtain an overall weighted average grade of at least 'B-' in the prescribed course (see Establishment of Program and Prescribed Studies).

Additional Courses

In addition to the prescribed studies the candidate may take ancillary courses that support the specific discipline. These courses may be at either the undergraduate or the graduate level.

Research

At least one full-time semester must be devoted to thesis research. Individual programs may require a longer period. To avoid undue prolongation of the student's program, the research topic should be identified early in the program and approved by the Advisory Committee.

Thesis

Each student will submit a thesis, expressed in satisfactory literary form, based on research in a topic connected with the student's special discipline. The thesis must demonstrate the student's capacity for original and independent work and should include a critical evaluation of work that has previously been done in the student's area/field of research. The thesis should emphasize any new conclusions that may be drawn from the student's own research.

For purposes of equivalency calculations, a master's thesis is generally considered to be the equivalent of 2.0 credits.

Procedures

The thesis may be submitted at any time of the year, but candidates are encouraged to have the final examination well in advance of the deadline date for thesis submission. Students should be aware of the deadline schedule, a copy of which may be obtained in the Office of Graduate and Postdoctoral Studies. and Postdoctoral Studies. Students should discuss their thesis with their Advisors early in their final semester.

As the student writes their thesis, they are expected to be in regular communication with the Advisory committee who will review a draft(s) and recommend revisions. When a draft is completed that the Advisory Committee recommends for examination, the final draft is sent to the members of the Master's Examination Committee and the final oral examination is sheduled.

Each department is expected to establish master's examination guidelines to assist members of the Examination Committee to follow, as far as possible, a uniform procedure in the evaluation of theses, and in the conduct of oral defenses of the thesis, so that all students are subjected to uniformly fair examinations. Where policy in this calendar appears to conflict with that in departmental guidelines, the policy in this calendar takes precedence.

Following the master's examination the student, if successful, prepares the thesis in final form for its submission to the Assistant VP Graduate Studies(see below). The thesis must include any minor corrections or revisions by the Examination Committee. Approval of the thesis takes the form of a Certificate of Approval, signed by the Examination Committee.

Master's Examination

The final oral examination, devoted chiefly to the defence of the thesis, is a departmental examination identified as the master's examination. The Master's Examination Committee normally consists of four members appointed by the Department Chair, as follows:

- A member of the regular graduate faculty or retired faculty with Associated Graduate
 Faculty status of the department, who is not a member of the Advisory Committee,
 to act as chair of the master's Examination Committee and to make arrangements
 therefor:
- A member of the candidate's Advisory Committee (normally, the Advisor);
- A member of the graduate faculty who may be a member of the Advisory Committee;
- A fourth member appointed from among graduate faculty from another department, from the department or from the Advisory Committee, according to departmental and/or examination requirements.

If possible, a graduate faculty member of another department should be included on the Master's Examination Committee.

Note

The Chair serves to administer and ensure the proper conduct of the examination. The Chair is expected to exercise full control over the proceedings and does not participate directly in questioning the candidate during the examination. In unforeseen circumstances where an examiner is unable to attend due to sudden illness, accident, etc., the Chair will attempt to receive questions to ask on behalf of the absent member, to be answered by the student to the satisfaction of the examiners.

The examination is open to the public; members of the audience may question the candidate only upon invitation of the Chair of the Examination Committee.

The examination is passed and the thesis approved if there is no more than one negative vote. An abstention is regarded as a negative vote. The report to the Assistant Vice-President (Graduate Studies) will record the decision as unsatisfactory or satisfactory. If unsatisfactory, the candidate may be given a second attempt. A second unsatisfactory result constitutes a recommendation to the Board of Graduate Studies that the student be required to withdraw (see Unsatisfactory Progress and Appeals of Decisions).

Copies of Thesis

One electronic (.pdf) copy of the certified thesis must be submitted to the Atrium by the thesis submission deadline date shown in the Schedule of Dates in the Graduate Calendar. A brief abstract consisting of no more than 150 words must also be included in the electronic submission. The Certificate of Approval signed by the Examination Committee, a copy of the circulation waiver, and the copying license must also be submitted to the Office of Graduate and Postdoctoral Studies. Departments may have a requirement to submit a bound copy of the thesis.

Publication

The university requires publication of the thesis in the following manner:

One electronic copy of the thesis is uploaded by the National Library of Canada, which will also receive the agreement form signed by the student authorizing the National Library to publish the thesis and to make copies available for sale on request. The National Library will upload the thesis exactly as it is and will list the thesis in Theses Canada as a publication of the National Library.

An abstract of not more than 150 words, prepared by the author and approved by the Advisor, and submitted as part of the electronic thesis submission, is also uploaded by the National Library.

The National Library's <u>Theses Non-Exclusive License</u> will be sent to the student prior to the master's examination, to be signed and submitted to the Office of Graduate and Postdoctoral Studies immediately after the successful completion of the examination.

The student, in consultation with the Advisor and the Department Chair, has the right to request that circulation and/or copying of the thesis in any form be withheld for up to one year.

Program Regulations

Individual departments may have regulations in addition to those described in this section. Students are responsible for consulting the specific program in this calendar regarding any such regulations. University regulations, as specified herein, take precedence, and may not be overruled by any program regulation.

Master's Degree by Coursework

Admission

Admission to a master's degree program as a regular student is granted, on the recommendation of the department concerned, to:

- the holder of an honours baccalaureate or its equivalent, as set out in the Admission Requirements of the specific program; or
- a student who has satisfied the requirements for transfer from the provisional student category.

Individual programs may have additional admission requirements. Before applying, applicants are responsible for consulting the specific program in this calendar regarding such requirements.

Minimum Duration

At least two semesters of full-time study must be devoted to the master's degree program if the student is admitted as a regular student. However, some programs may require a longer minimum duration period. A student admitted as a provisional student requiring two semesters in that category, must spend at least one additional semester as a regular full-time student. For a student registered part-time, the minimum duration period is four part-time semesters.

Completion

Normally, the program must be completed within six semesters see Program Duration Policy. However, some programs may require completion of degree requirements within a briefer time period.

Advising

The student's program is established and progress kept under review by the academic unit in which the student is enrolled (see Enrolment and Registration). The day-to-day responsibility will rest with the Advisor, who will be the Graduate Program Coordinator by default unless otherwise established. Individual programs may require that students have an Advisory Committee, which will consist of at least one graduate faculty member in addition to the Advisor. In such cases, the Advisory Committee must be established and the Advisory Committee Appointment form submitted to the Office of Graduate Studies no later than the 20th class day of the student's second registered semester.

Courses

A master's degree by coursework at the University of Guelph requires that students demonstrate a reasonable mastery of a concentrated area/field of study. This is shown by the achievement of satisfactory standings in courses, as determined by the program.

Prescribed Studies

The number of course credits will not be fewer than 3.5. The prescribed studies will include coursework that has research components, such as research papers, to develop the student's analytic, interpretive and communication skills. In some programs, a major essay, practicum or research paper accounts for 0.5 or 1.0 of the total credits required. A maximum of 1/3 of the credits may be taken from senior undergraduate courses. The student must obtain an overall weighted average grade of at least 'B-' in the prescribed courses (see Establishment of Program and Prescribed Studies).

Individual programs may require more than 3.5 graduate course credits and/or may allow fewer than 1/3 senior undergraduate courses. Students are responsible for consulting the specific program in this calendar regarding any such requirements.

Additional Courses

In addition to the prescribed studies students may take ancillary courses that support the specific discipline. These courses may be at either the undergraduate or the graduate level.

Major Research Project or Paper

A Major Research Project or Paper (MRP) normally demonstrates a synthesis, application, and effective communication of knowledge acquired across graduate level courses through the discussion of a meaningful question or application within the area/field of study. MRPs might include a critical review of the literature, analysis of a theoretical or substantive problem, and/or production of a tool or set of resources for community/industry use.

A course outline provided to the student at the outset of MRP work should clearly define expectations of achievement and the methods and criteria used in establishing final grades for the MRP course. MRPs may involve mentorship by/partnership with external (community, industry) experts. All evaluations will be completed by a member of the graduate faculty, and at least two graduate faculty members will contribute to the assessment of at least 50% of the final grade.

Program Regulations

Individual programs may have regulations in addition to those described in this section and/or this calendar. Students are responsible for consulting the specific program in this calendar regarding any such regulations. University regulations, as specified herein, take precedence and may not be overruled by any program regulation.

Graduate Diplomas

Admission

Admission to a postgraduate diploma program as a regular student may be granted on recommendation of the department as set out in the Admission Requirements, with at least a 'B-' in the work of the final two years.

Minimum Duration

The typical duration is one to four semesters (dependant on the program) of full-time study devoted to the diploma program. For a student registered part-time, the minimum duration period is seven part-time semesters.

Advising

The student's program is planned and the student's progress is reviewed by the department. The Advisory Committee must be established and the Advisory Committee Appointment form submitted to the Office of Graduate and Postdoctoral Studies not later than the 20th class day of the student's second registered semester.

Courses

The postgraduate diploma program requires the completion of regular graduate courses and may require special professional or applied courses and a project. The curriculum for the graduate diploma is established by the department. In order to qualify for graduation, the student must obtain an overall weighted average grade of at least 'B-' in the required courses (see Prescribed Studies). Details may be obtained from the Chair of the department. A thesis is not required.

January 28, 2020 2019-2020 Graduate Calendar