2018-2019 Graduate Calendar

The information published in this Graduate Calendar outlines the rules, regulations, curricula, programs and fees for the 2018-2019 academic year, including the Summer Semester 2018, Fall Semester 2018 and the Winter Semester 2019.

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

Contact Information:

University of Guelph
Guelph, Ontario, Canada
N1G 2W1
519-824-4120

Revision Information:

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Disclaimer
The Office of Graduate 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) at 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, his/her 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 his or her 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.
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X. Collaborative Specializations

Collaborative specializations are intended to provide an additional multidisciplinary experience for students. Students complete the requirements of their home program plus those of the collaborative specialization.
International Development Studies

The International Development Studies (IDS) collaborative specialization provides a focal point for graduate teaching and research in the area of international development. The collaborative specialization combines training in a particular discipline with exposure to a broad range of social science perspectives. Faculty expertise encompasses various aspects of development in Asia, Africa, Eastern and Western Europe and the Americas.

Administrative Staff

Director
Spencer Henson (805 MacKinnon, Ext. 53134)
shenson@uoguelph.ca

Graduate Program Coordinator
Sally Humphries (646 MacKinnon, Ext. 53542)
shumphri@uoguelph.ca

Graduate Program Assistant
TBD (046 MacKinnon, Ext. 53461)
ids@uoguelph.ca

From Capacity Development and Extension
Graduate Program Coordinator
Helen Hambley Odame (119 Landscape Architecture, Ext. 53408)

Graduate Program Assistant
Patricia Van Asten (100 Landscape Architecture, Ext. 56780)

From Economics
Graduate Program Coordinator
Thanasis Stengos (715 MacKinnon, Ext. 53917)

Graduate Program Assistant
Amanda Hewitt (726 MacKinnon, Ext. 56341)

From Engineering
Associate Director, Graduate Studies
Bahram Gharabaghi (2147 Thornbrough, Ext. 58451)

Graduate Program Assistant
Jacqueline Floyd (1405 Thornbrough, Ext. 56187)

From English
Graduate Program Coordinator
Gregor Campbell (MCKN 431, Ext. 53255)

Graduate Program Assistant
Olga Petrik (427 MacKinnon, Ext. 56315)

From Environmental Sciences
Program Coordinator
Claudia Wagner-Riddle (110 Alexander Hall, Ext. 52787)

Graduate Program Assistant
Jennifer LaPorte (275 Alexander Hall, Ext. 53937)

From Food, Agricultural and Resource Economics
Graduate Program Coordinator
John Cranfield (222 MacLachlan, Ext. 52766)

Graduate Program Assistant
Kathryn Selves (311 MacLachlan, Ext. 52771)

From Geography
Graduate Program Coordinator
Robin Roth (131 Brett, Ext. 53252)

Graduate Program Assistant
Jack Mallon (123a Brett, Ext. 56721)

From History
Graduate Program Coordinator
Susan Nance (201 MacKinnon Ext., Ext. 56327)

Graduate Program Assistant
Michael Boterman (2010 MacKinnon, Ext. 56847)

From Latin American and Caribbean Studies
Graduate Program Coordinator
Gordana Yovanovich (277 MacKinnon, Ext. 53180)

Graduate Program Assistant
Angelina Candotti (267 MacKinnon, Ext. 53884)

From Philosophy
Graduate Program Coordinator
Andrew Wayne (2008 MacKinnon Ext., Ext. 56787)

Graduate Program Assistant
Janet Thackray (348 MacKinnon, Ext. 56265)

From Plant Agriculture
Graduate Program Coordinator
Al Sullivan (4222 Bovey, Ext. 52792)

Graduate Program Assistant
Tara Israel (1105 Bovey, Ext. 56077)

From Political Science
Graduate Program Coordinator
Candace Johnson (551 MacKinnon Ext., Ext. 52179)

Graduate Program Assistant
Renee Tavascia (533 MacKinnon, Ext. 53469)

From Population Medicine
Graduate Program Coordinator
David Pearl (207B CLRE, Ext. 54748)

Graduate Program Assistant
Ariah Easley (102 CLRE, Ext. 54005)

From Public Health
Graduate Program Coordinator
Andrew Papadopoulos (110 FVMI, Ext. 53894)

Graduate Program Assistant
Ariah Easley (102 CLRE, Ext. 54005)

From Rural Planning and Development
Graduate Program Coordinator
John FitzGibbon (119 Johnston Hall, Ext. 56784)

Graduate Program Assistant
Patricia Van Asten (100 Landscape Architecture, Ext. 56780)

From Sociology and Anthropology
Society Graduate Program Coordinator
Jeji Varghese (634 MacKinnon Ext., Ext. 56333)

Public Issues in Anthropology Graduate Program Coordinator
Satsuki Kawano (603 MacKinnon, Ext. 53912)

Graduate Program Assistant
Shelah Daly (624 MacKinnon, Ext. 53895)

Master's Collaborative Specialization

Students wishing to pursue a Master's degree with the designation "International Development Studies" must enter the collaborative specialization in International Development through a participating department.

Admission Requirements

Students must meet the University's general requirement a four-year Honours degree, or equivalent, from a recognized post-secondary institution with a B- average over the last two years of full-time equivalent study. Note that some departments set their admission requirement higher than B-.

Students must have completed the following:

• One undergraduate course in economics.
• One undergraduate course in a social science discipline
• One course in social science research methods or equivalent.

Degree Requirements

Students complete International Development Studies core requirements and the requirements of their home department. The following are requirements for select departments; consult the IDS Graduate website for other departments.

IDS Master's Core Courses*
IDEV*6200 [1.00] Development Theory, Issues and Process
IDEV*6300 [0.50] Research and Analysis in a Development Context

Optional IDS Courses

Students in the collaborative specialization may undertake two optional interdisciplinary courses:
IDEV*6000 [0.50] Regional Context
IDEV*6500 [0.50] Fieldwork in International Development Studies

Departmental or Program Requirements

Programs not listed below are designed by special arrangements. All departmental requirements are subject to change. Students should confirm the departmental course requirements with the respective Graduate Program Coordinator.

Capacity Development and Extension (MSc)
CDE*6070 [0.50] Foundations of Capacity Building and Extension
CDE*6260 [0.50] Research Design
One of:
RPD*6380 [0.50] Application of Quantitative Techniques in Rural Planning and Development

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A thesis

Course Work and Major Research Paper MFARE

- FARE*6380 [0.50] Applied Microeconomics for Agricultural Economists
- FARE*6910 [0.50] Applied Policy Analysis I
- FARE*6970 [0.50] Applied Quantitative Methods for Agricultural Economists
- FARE*6100 [0.50] The Methodologies of Economics
- FARE*6600 [0.50] Food Security and the Economics of Agri-Food Systems in Developing Countries
- FARE*6400 [0.50] Advanced Topics in Agricultural Economics
- FARE*6800 [0.00] Seminar in Agricultural Economics
- FARE*6140 [1.00] Major Paper in Food, Agricultural and Resource Economics

One additional course

Course Work MFARE

In order to satisfy the degree requirements of the course work option, students will complete successfully the following courses:

- FARE*6380 [0.50] Applied Microeconomics for Agricultural Economists
- FARE*6910 [0.50] Applied Policy Analysis I
- FARE*6970 [0.50] Applied Quantitative Methods for Agricultural Economists
- FARE*6100 [0.50] The Methodologies of Economics
- FARE*6600 [0.50] Food Security and the Economics of Agri-Food Systems in Developing Countries
- FARE*6400 [0.50] Advanced Topics in Agricultural Economics

History (MA)

Three History courses

- HIST*6400 [1.00] Major Paper

Latin American and Caribbean Studies (MA)

- LACS*6010 [0.50] Latin American Identity & Culture
- LACS*6020 [0.50] Re-Imagining Community in Latin America
- LACS*6030 [0.50] Globalization & Insecurity in the Americas

Management (MA)

Degree Requirements

- Eight courses (4.0 credits) plus the major research project (1.0 credit).

Core Courses:

- MGMT*6100 [0.50] Evidence Based Management Research
- MGMT*6200 [0.50] Leadership Assessment and Development

Fields:

- Management Research
- ACCT*6100 [0.50] Integrated Cases I
- ACCT*6200 [0.50] Integrated Cases II
- ACCT*6300 [0.50] Taxation
- ACCT*6400 [0.50] Performance Management
- ACCT*6500 [0.50] Assurance
- ACCT*6600 [0.50] Financial Management

Other courses from the Department of Management with permission from the Graduate Program Coordinator.

Restricted Electives:

One quantitative or qualitative research methods course (0.5 credits) with permission:

- ANTH*6140 [0.50] Qualitative Research Methods
- FRAN*6020 [0.50] Qualitative Methods
PhD Collaborative Specialization

The collaborative specialization in International Development Studies (IDS) in a PhD program provides an opportunity for advanced students to engage with interdisciplinary development theories and to conduct research on international development issues based on approaches of selected academic disciplines. The collaborative specialization in IDS is undertaken jointly with a discipline-based degree. Students enter IDS through a participating department with a PhD program. At present, these include Sociology; Plant Agriculture; Philosophy; Political Science; Population Medicine; Geography; Food, Agricultural and Resource Economics; Economics; History; Engineering; Environmental Sciences.

Based on the experience of faculty advisors in key participating departments, the program focuses on issues such as international political economy, food security, environmental dynamics and governance, gender inequality, rural development, long-term economic change, and other interdisciplinary cutting-edge topics in international development.

Admission Requirements

To be considered for admission, an applicant must have a recognized Bachelor’s degree and a Master’s degree in a relevant discipline or related interdisciplinary field. Applicants to the IDS collaborative specialization must meet the specific departmental admission requirements, which vary from one department to another. For information on the admission requirements and application deadlines of your selected department, please contact the relevant department directly.

In addition to the specific departmental admission requirements, applicants are expected to have a strong background in the social sciences a demonstrable track record of experience in the course-based study of development issues, development research and/or development practice and a stated research interest relating to international development.

Degree Requirements

Students complete requirements for the departmental degree as well as the IDS components which consist of two core courses, including an interdisciplinary course on theories and debates in development and a course on development research and practice. Students must obtain a minimum final grade of 75% in each of the two IDS PhD core courses to remain in the IDS collaborative specialization. While the students have to successfully complete these courses to remain in the IDS collaborative specialization, they do not have to pass a separate qualifying examination in addition to the departmental qualifying exam. Furthermore, the expectation is that the IDS students’ PhD research will bridge two or more disciplines in a way that relates to the field of IDS. The departmental supervisor must have knowledge and understanding of International Development Studies as it relates to the requirements of the IDS collaborative specialization. One of the members on the student’s advisory committee needs to be an appointed IDS affiliated faculty member approved by the IDS Admissions Committee.

For further information regarding course offering, please contact the IDS Graduate Program Assistant.

IDS PhD Core Courses

IDEV*6800 [0.50] Theories and Debates in Development
IDEV*6850 [0.50] Development Research and Practice

Departmental PhD Requirements

Departmental requirements are assigned in collaboration with the student’s home department. See respective departmental web pages.

Courses

IDEV*6600 Regional Context U [0.50]

This reading course provides an opportunity for in-depth investigation about a particular region in preparation for a thesis, major paper or research project. The course normally is directed by the student’s advisor.

Department(s): Dean’s Office, College of Social and Applied Human Sciences

IDEV*6500 Fieldwork in International Development Studies U [0.50]

This course recognizes an intensive commitment to research in an archival repository, ‘in the field’ or at an appropriate development institution in Canada or abroad. The course normally is directed by the student’s advisor in consultation with the advisory committee.

Department(s): Dean’s Office, College of Social and Applied Human Sciences

IDEV*6800 Theories and Debates in Development F [0.50]

This course examines recent approaches in development theory explaining international inequality, poverty and long-term change. It also investigates selected current debates in international development — such as food security, trade, good governance, sustainability or gender — from various discipline-based and interdisciplinary perspectives, and analyzes selected regional experiences of development.

Restriction(s): Restricted to students in doctoral IDEV collaborative specializations. A minimum final grade of 75% is required to remain in the IDEV collaborative specialization.

Department(s): Dean’s Office, College of Social and Applied Human Sciences

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<tr>
<td>IDEV*6850</td>
<td>Development Research and Practice W [0.50]</td>
<td>In this course students establish the linkages between their doctoral research topic and the wider field of development studies and practice. The course will examine development policies and projects, ethical issues related to (cross-cultural) development research, and relationships between research and development practice.</td>
<td>Restricted to students in doctoral IDEV collaborative specializations. A minimum final grade of 75% is required to remain in the IDEV collaborative specialization.</td>
<td>Dean's Office, College of Social and Applied Human Sciences</td>
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Neuroscience

The Neuroscience collaborative specialization provides an opportunity for MSc/MBS/PhD students engaged in research in the rapidly expanding field of neuroscience, to combine their departmental degree program with multidisciplinary exposure to the field of neuroscience. This unique combination of multidisciplinary studies provides students with the best possible foundation for academic careers in neuroscience and related areas. The collaborative specialization includes participation from core faculty in the following departments: Animal Biosciences, Biomedical Sciences, Human Health and Nutritional Sciences, Integrative Biology, Molecular and Cellular Biology, Pathobiology, Population Medicine and Psychology.

Administrative Staff

Boyer Winters
Director (3005 MacKinnon, Ext. 52163)
bwinters@uoguelph.ca

Peter Hausdorf
Graduate Program Coordinator (3013 MacKinnon, Ext. 53976)
phausdorf@uoguelph.ca

Robin Sorbara
Graduate Program Assistant (4014 MacKinnon, Ext. 53508)
robinfra@uoguelph.ca

Graduate Faculty

Naseem Al-Aidroos
Associate Professor, Psychology

Craig D. Bailey
Assistant Professor, Biomedical Sciences

Andrew J. Bendall
Associate Professor, Molecular and Cellular Biology

Leah R. Bent
Associate Professor, Human Health and Nutritional Sciences

Nicholas J. Bernier
Professor, Integrative Biology

Elena Choleris
Professor, Psychology

Donald Dedrick
Associate Professor, Philosophy/Psychology

Mark J. Fenske
Associate Professor, Psychology

Christopher Fiacconi
Assistant Professor, Psychology

George Harauz
Professor and Canada Research Chair, Molecular and Cellular Biology

Andreas Heyland
Assistant Professor, Integrative Biology

Fiona James
Assistant Professor, Clinical Studies

Nina Jones
Associate Professor and Canada Research Chair, Molecular and Cellular Biology

Bettna E. Kalisch
Associate Professor, Biomedical Sciences

Jibran Khokhar
Assistant Professor, Biomedical Sciences

Frederic Laberge
Assistant Professor, Integrative Biology

Jasmin Lalonde
Assistant Professor, Molecular and Cellular Biology

Francesco Leri
Professor, Psychology

Ray Lu
Associate Professor, Molecular and Cellular Biology

David W.L. Ma
Associate Professor, Human Health and Nutritional Sciences

Neil J. MacLusky
Professor and Chair, Biomedical Sciences

Georgia Mason
Professor and Canada Research Chair, Animal Biosciences

Robert L. McLaughlin
Associate Professor, Integrative Biology

Daniel V. Meegan
Associate Professor, Psychology

Jennifer Murray
Assistant Professor, Psychology

Lori A. Vallis
Professor, Animal Biosciences

Tina Widowski
Associate Professor, Human Health and Nutritional Sciences

Boyer D. Winters
Professor, Psychology

John L. Zettel
Assistance Professor, Human Health and Nutritional Sciences

MSc/MBS Collaborative Specialization

The MSc/MBS collaborative specialization in Neuroscience enables students engaged in neuroscience research to combine their departmental degree program with a multidisciplinary specialization in the field of neuroscience.

Admission Requirements

MSc/MBS students in the collaborative specialization in Neuroscience must meet the admission requirements of the participating department in which they are enrolled. The application process has two stages: first, application to the primary program of interest, identifying interest in the collaborative specialization as a secondary focus. If the student is admitted to the primary program, the second stage is then admission to the collaborative specialization.

Degree Requirements

In addition to coursework in their respective departments, students in the MSc/MBS collaborative specialization must complete NEUR*6000 as well as registering for NEUR*6100 in each term that they are in the collaborative specialization. In NEUR*6100, students and faculty will meet once a month to discuss issues/ hear talks/ present research in neuroscience.

PhD Collaborative Specialization

The PhD collaborative specialization in Neuroscience enables students engaged in neuroscience dissertation research to combine their departmental degree program with a multidisciplinary specialization in the field of neuroscience.

Admission Requirements

PhD students in the collaborative specialization in Neuroscience must meet the PhD admission requirements for the participating department in which they are enrolled.

Degree Requirements

If a student enters the PhD collaborative specialization in Neuroscience at the doctoral level, in addition, to coursework in their respective departments, students must complete NEUR*6000, or show evidence of course equivalence in prior training. Students must be engaged in neuroscience dissertation research. During each term of their program of studies, doctoral students must enroll in NEUR*6100. The seminar will meet monthly. Students must take their qualifying exams within five semesters of entering the program.

Courses

NEUR*6000 Principles of Neuroscience U [0.50]

This course is designed to ensure that graduate students with diverse neuroscience backgrounds registered in the collaborative specialization in Neuroscience are exposed to the fundamentals in all areas of neuroscience.

Department(s):
Department of Biomedical Sciences
NEUR*6100 Seminar in Neuroscience U [0.00]

This course will expose graduate students to some of the major theories, issues and methodologies driving research in neuroscience. Students will learn to critically evaluate presentations by researchers in this field as well as to communicate the results of their own research.

Department(s): Department of Psychology
The collaborative specialization is the focal point for graduate teaching and research in toxicology. Students wishing to undertake graduate studies at the MSc or PhD level with emphasis on toxicology will be admitted by a participating department and will register in both the participating department and in the collaborative specialization. The participating academic units include the Departments of Animal Biosciences, Biomedical Sciences, Chemistry, Human Health and Nutritional Sciences, Integrative Biology, Molecular and Cellular Biology, Pathobiology, Plant Agriculture and the School of Environmental Sciences.

Administrative Staff

**Director and Graduate Program Coordinator**
Dr. Richard Manderville (SCIE 3243, Ext. 53963)
rmanderv@uoguelph.ca

**Graduate Secretary**
Lisa O’Dwyer (SCIE 2513, Ext. 53044)
chemgrad@uoguelph.ca

**Graduate Faculty**

- **Manfred Brauer**
  Associate Professor, Molecular and Cellular Biology

- **Elena Choleris**
  Professor, Psychology

- **Beverley Hale**
  Associate Professor, School of Environmental Sciences

- **Christopher J. Hall**
  Professor, School of Environmental Sciences

- **Ronald Johnson**
  Associate Professor, Biomedical Sciences

- **P. David Josephy**
  Professor, Molecular and Cellular Biology

- **Bettina E. Kalisch**
  Associate Professor, Biomedical Sciences

- **Niel A. Karrow**
  Assistant Professor, Animal Biosciences

- **Gordon M. Kirby**
  Assistant Professor, Biomedical Sciences

- **Jibran Khokhar**
  Assistant Professor, Biomedical Sciences

- **Hung Lee**
  Professor, School of Environmental Sciences

- **Francesco Leri**
  Professor, Psychology

- **Richard A. Manderville**
  Associate Professor, Chemistry

- **Linda A. Parker**
  Professor, Psychology and Canada Research Chair

- **Leonard Ritter**
  Professor, School of Environmental Sciences

- **Cynthia Scott-Dupree**
  Associate Professor, School of Environmental Sciences

- **Paul K. Sibley**
  Assistant Professor, School of Environmental Sciences

- **E. James Squires**
  Professor, Animal Biosciences

- **Glen J. Van Der Kraak**
  Professor, Integrative Biology and Associate Dean, Research, CBS

**MSc Collaborative Specialization**

**Admission Requirements**

MSc students in the collaborative specialization in toxicology must meet the MSc admission requirements of the participating department in which they are enrolled.

**Degree Requirements**

MSc students in the collaborative specialization in toxicology must complete a minimum of 1.50 graduate credits, which must include the toxicology courses TOX*6000 and TOX*6200 and courses required by the participating department in which they are enrolled. TOX*6000 may be waived for students whose undergraduate degree included significant training in toxicology.

**PhD Collaborative Specialization**

**Admission Requirements**

PhD students in the collaborative specialization in toxicology must meet the PhD admission requirements of the participating department in which they are enrolled.

**Degree Requirements**

PhD students in the collaborative specialization in toxicology must meet all the academic requirements specified by the participating department in which they are enrolled. They must also complete the courses TOX*6000 and TOX*6200 if they, or equivalent courses, were not taken as part of an MSc program.

**Courses**

**TOX*6000 Advanced Principles of Toxicology S [0.50]**
An intensive course in the principles of modern aspects of toxicology, taught in a lecture/case study format.

**Department(s):** Department of Chemistry

**TOX*6200 Advanced Topics in Toxicology W [0.50]**
Advanced topics in toxicology will include oral presentations by students, faculty members, and guest lecturers. The emphasis will be on advanced concepts and techniques in toxicology research with particular relevance to mechanistic, molecular and interpretive toxicology.

**Restriction(s):** Credit may be obtained for only one of TOX*6200 or TOX*4200

**Department(s):** Department of Chemistry

**TOX*6590 Biochemical Toxicology F [0.50]**
The molecular mechanisms of action of carcinogens and other toxic compounds. Enzymes of biotransformation, including a detailed study of cytochrome P-450. Interactions of reactive species with DNA and other macromolecules. (Credit may be obtained for only one of TOX*4590 and TOX*6590).

**Department(s):** Department of Chemistry

**Other courses**

- **BIOM*6721** [0.25] Special Topics in Pharmacology-Toxicology
- **BIOM*6722** [0.50] Special Topics in Biomedical Pharmacology-Toxicology
- **CHEM*7310** [0.50] Selected Topics in Biochemistry
- **CHEM*7600** [0.50] Selected Topics in Organic Chemistry