

2007-2008 Graduate Calendar

The information published in this Graduate Calendar outlines the rules, regulations, curricula, programs and fees for the 2007-2008 academic years, including the Summer Semester 2007, the Fall Semester 2007 and the Winter Semester 2008.

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:

- The Association of Universities and Colleges of Canada

Contact Information:



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

Revision Information:	
May 25, 2007	Initial Publication
August 21, 2007	Revision I
October 23, 2007	Revision II
February 7, 2008	Revision III



Disclaimer

The Office of Graduate Program Services 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, 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 Training, Colleges and Universities, 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 <http://www.uoguelph.ca/registrar/registrar/index.cfm?index>.

Statistics Canada - Notification of Disclosure

For further information, please see Statistics Canada's web site at <http://www.statcan.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 Graduate Program 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 <http://www.uoguelph.ca/policies>.

Table of Contents

Toxicology	151
MSc Program	151
PhD Program	151
Courses	151

Toxicology

The interdepartmental collaborative program 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 program. The participating academic units include the Departments of Animal and Poultry Science, Biomedical Sciences, Chemistry, Environmental Biology, Human Health and Nutritional Sciences, Integrative Biology, Land Resource Science, Mathematics and Statistics, Molecular and Cellular Biology, Pathobiology, and Plant Agriculture (Horticulture division).

Administrative Staff

Director of Toxicology Program

Herman J. Boermans (2602 OVC, Ext. 54984)

hboerman@uoguelph.ca

Secretary

Beth Baker (2603 OVC, Ext. 52644)

Graduate Faculty

Herman J. Boermans

Associate Professor, Biomedical Sciences

Manfred Brauer

Associate Professor, Molecular and Cellular Biology

Nigel J. Bunce

Professor, Chemistry

Lesley J. Evans

Professor, Land Resource Science

Beverley Hale

Associate Professor, Land Resource Science

Christopher J. Hall

Professor, Environmental Biology

M. Anthony Hayes

Professor, Pathobiology

John J. Hubert

Professor, Mathematics and Statistics

P. David Josephy

Professor, Molecular and Cellular Biology

Bettina E. Kalisch

Associate Professor, Biomedical Sciences

Niel A. Karrow

Assistant Professor, Animal and Poultry Science

Peter G. Kevan

Professor, Environmental Biology

Gordon M. Kirby

Assistant Professor, Biomedical Sciences

James B. Kirkland

Assistant Professor, Human Health and Nutritional Sciences

Hung Lee

Professor, Environmental Biology

Francesco Leri

Assistant Professor, Psychology

Richard A. Manderville

Associate Professor, Chemistry

Joanne M. O'Meara

Assistant Professor, Physics

Leonard Ritter

Professor, Environmental Biology

Cynthia Scott-Dupree

Associate Professor, Environmental Biology

Frances J. Sharom

Professor, Molecular and Cellular Biology

Paul K. Sibley

Assistant Professor, Environmental Biology

Trevor K. Smith

Professor, Animal and Poultry Science

Keith R. Solomon

Professor, Environmental Biology

E. James Squires

Professor, Animal and Poultry Science

Jack T. Trevors

Professor, Environmental Biology

Glen J. Van Der Kraak

Professor, Integrative Biology and Associate Dean, Research, CBS

MSc Program

Admission Requirements

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

Degree Requirements

MSc students in the collaborative program in toxicology must complete a minimum of 1.5 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 Program

Admission Requirements

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

Degree Requirements

PhD students in the collaborative program 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 Toxicology S [0.50]

An intensive course in the principles of modern aspects of toxicology, taught in a lecture/case study format.

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.

TOX*6530 Ecotoxicological Risk Characterization W [0.50]

A biologically based advanced course that will give students working knowledge of current procedures and techniques for ecotoxicological risk characterization. The course material will cover the topics: problem definition, dose response characterization, exposure characterization, and risk assessment and risk-management decision making. (Credit may be obtained for only one of TOX*6530, ENVB*6530 and TOX*4550.) Department of Environmental Biology

ENVB*6530 Ecotoxicological Risk Characterization W [0.50]

A biologically based advanced course that will give students working knowledge of current procedures and techniques for ecotoxicological risk characterization. The course material will cover the topics: problem definition, dose response characterization, exposure characterization, and risk assessment and risk-management decision making. (Credit may be obtained for only one of TOX*6530, ENVB*6530 and TOX*4550) Department of Environmental Biology.

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 9406590.) Department of Chemistry and Biochemistry

CHEM*7310 Selected Topics in Biochemistry I U [0.50]

Discussion of specialized topics related to the research interests of members of the centre: for example, recent offerings have included peptide and protein chemistry, biochemical toxicology, medical aspects of biochemistry, glycolipids and glycoproteins, redox enzymes, biological applications of magnetic resonance, etc. Department of Chemistry

CHEM*7320 Selected Topics in Biochemistry II U [0.50]

Discussion of specialized topics related to the research interests of members of the centre: for example, recent offerings have included peptide and protein chemistry, biochemical toxicology, medical aspects of biochemistry, glycolipids and glycoproteins, redox enzymes, biological applications of magnetic resonance, etc. Department of Chemistry

CHEM*7330 Selected Topics in Biochemistry III U [0.50]

Discussion of specialized topics related to the research interests of members of the centre: for example, recent offerings have included peptide and protein chemistry, biochemical toxicology, medical aspects of biochemistry, glycolipids and glycoproteins, redox enzymes, biological applications of magnetic resonance, etc. Department of Chemistry

CHEM*7600 Selected Topics in Organic Chemistry I U [0.50]
Two or three topics from a range including: bio-organic chemistry; environmental organic chemistry; free radicals; heterocyclic molecules; molecular rearrangements; organometallic chemistry; photochemistry; natural products. Department of Chemistry
CHEM*7610 Selected Topics in Organic Chemistry II U [0.50]
Two or three topics from a range including: bio-organic chemistry; environmental organic chemistry; free radicals; heterocyclic molecules; molecular rearrangements; organometallic chemistry; photochemistry; natural products. Department of Chemistry
CHEM*7620 Selected Topics in Organic Chemistry III U [0.50]
Two or three topics from a range including: bio-organic chemistry; environmental organic chemistry; free radicals; heterocyclic molecules; molecular rearrangements; organometallic chemistry; photochemistry; natural products. Department of Chemistry
CHEM*7630 Selected Topics in Organic Chemistry IV U [0.50]
Two or three topics from a range including: bio-organic chemistry; environmental organic chemistry; free radicals; heterocyclic molecules; molecular rearrangements; organometallic chemistry; photochemistry; natural products. Department of Chemistry
ENVB*6180 Physiology and Biochemistry of Herbicides W [0.50]
Chemical and biological fate of herbicides in soil. Physical, morphological and physiological factors influencing herbicidal selectivity and modes of action. (Offered in alternate years.) Department of Environmental Biology
BIOM*6440 Biomedical Toxicology U [0.50]
The course examines chemical compounds injurious to animals and man, toxicity testing, teratogens, carcinogens, factors influencing toxicity, and toxic drug interactions. The mechanism of action, metabolism, and principles of antidotal treatment are also studied.
BIOM*6480 Pharmacodynamics and Pharmacokinetics U [0.50]
This course describes drug absorption, distribution, biotransformation and elimination in animals and human beings, and emphasizes factors which modify drug behaviour. It integrates molecular mechanisms with physiological processes and highlights the importance of receptors and second messengers in cellular responses to pharmacologic agents.
BIOM*6721 Special Topics in Pharmacology-Toxicology U [0.25]
This course will comprise a combination of an experimental procedure (or project), seminars, selected reading or a literature review outside the thesis subject, developed based on the student's requirements. Topics could include clinical pharmacology/toxicology, pharmaco-epidemiology/economics, gerontological or perinatal pharmacology and toxicokinetics. Department of Biomedical Sciences
BIOM*6722 Special Topics in Biomedical Pharmacology-Toxicology U [0.50]
See BIOM*6721