

# 2017-2018 Graduate Calendar

The information published in this Graduate Calendar outlines the rules, regulations, curricula, programs and fees for the 2017-2018 academic years, including the Summer Semester 2017, Fall Semester 2017 and the Winter Semester 2018.

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

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## **Disclaimer**

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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**

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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**

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### **Collection, Use and Disclosure of Personal Information**

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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](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 <https://www.uoguelph.ca/registrar/>

### **Statistics Canada - Notification of Disclosure**

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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**

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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**

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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**

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Students are responsible for maintaining a current mailing address with the University. Address changes can be made, in writing, through the Office of Graduate Studies.

### **Name Changes**

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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**

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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>.



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## **X. Collaborative Specializations**

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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)  
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#### Graduate Program Coordinator

Sally Humphries (646 MacKinnon, Ext. 53542)  
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#### Graduate Program Assistant

Catherine Badham (046 MacKinnon, Ext. 53461)  
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### From Capacity Development and Extension

#### Graduate Program Coordinator

Helen Hambly 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

Sharon Lee (723 MacKinnon, Ext. 56341)

### From Engineering

#### Associate Director, Graduate Studies

Animesh Dutta (3509 Thornbrough, Ext. 52441)

#### 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

#### Associate Director, Graduate Studies, School of Environmental Sciences

Rebecca Hallet (2240 Bovey Bldg, Ext. 54488)

#### Graduate Program Assistant

Jennifer LaPorte (275 Alexander Hall, Ext. 53937)

### From Food, Agricultural and Resource Economics

#### Graduate Program Coordinator

Alfons Weersink (222 MacLachlan, Ext. 52766)

#### Graduate Program Assistant

Kathryn Selves (311 MacLachlan, Ext. 52771)

### From Geography

#### Graduate Program Coordinator

Wanhong Yang (352 Hutt, Ext. 53090)

#### Graduate Program Assistant

Nance Grieve (123a Hutt, Ext. 56721)

### From History

#### Graduate Program Coordinator

Matthew Hayday (2003 MacKinnon Ext., Ext. 56052)

#### 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

Don Dedrick (329 MacKinnon Ext., Ext. 53203)

#### 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

Tamara Small (533 MacKinnon, Ext. 53469)

#### 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

#### Sociology Graduate Program Coordinator

Bill O'Grady (639 MacKinnon, Ext. 58943)

#### Public Issues in Anthropology Graduate Program Coordinator

Renee Sylvain (601 MacKinnon, Ext. 52721)

#### Graduate Program Assistant

Shelagh 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 IDS collaborative specialization through a participating department.

### Admission Requirements

Students must meet both departmental and collaborative specialization IDS requirements. They must demonstrate familiarity with conceptual frameworks employed in the social sciences. More detailed information is available on the [IDS Graduate website](#).

### Degree Requirements

Students complete IDS core requirements and requirements designated for IDS students by the relevant department. Following are requirements for select departments; consult the IDS Graduate website for other departments. One IDS core course may be waived if a student has taken a comparable course at the senior undergraduate level.

### IDS Master's Core Courses\*

|           |        |  |
|-----------|--------|--|
| IDEV*6100 | [0.50] | International Development Studies Seminar              |
| One of:   |        |  |
| SOC*6460  | [0.50] | Gender and Development                                 |
| ANTH*6460 | [0.50] | Gender and Development                                 |
| CDE*6420  | [0.50] | Communication for Social and Environmental Change      |
| SOC*6420  | [0.50] | Global Agro-Food Systems, Communities and Rural Change |
| ANTH*6420 | [0.50] | Global Agro-Food Systems, Communities and Rural Change |
| SOC*6480  | [0.50] | Work, Gender and Change in a Global Context            |
| ANTH*6480 | [0.50] | Work, Gender and Change in a Global Context            |
| SOC*6270  | [0.50] | Diversity and Social Equality                          |
| ANTH*6270 | [0.50] | Diversity and Social Equality                          |
| SOC*6520  | [0.50] | Social Movements and Collective Action                 |
| One of:   |        |  |
| GEOG*6340 | [0.50] | Human-Environment Relations                            |
| GEOG*6400 | [0.50] | Urbanization and Development                           |
| GEOG*6450 | [0.50] | Development Geography                                  |
| EDRD*6050 | [0.50] | Farming Systems Analysis and Development               |
| RPD*6291  | [0.50] | Rural Development Administration                       |
| One of:   |        |  |
| ECON*6370 | [0.50] | Economic Development in Historical Perspective         |

|           |        |  |
|-----------|--------|--|
| FARE*6600 | [0.50] | Food Security and the Economics of Agri-Food Systems in Developing Countries |
| ECON*6350 | [0.50] | Economic Development   |
| One of:   |        |  |
| POLS*6750 | [0.50] | Development in Practice  |
| POLS*6730 | [0.50] | The Politics of Development and Underdevelopment                             |

**Note**

\*This does not apply to students in Anthropology, Engineering, Food, Agricultural and Resource Economics, Latin American and Caribbean Studies, Political Science and Rural Planning and Development. Please see specific departmental requirements sections below for required courses (both IDS and departmental or program).

**Optional IDS Courses**

Students in the collaborative specialization may undertake any course offered by a participating department with the permission of the instructor. There are also two optional interdisciplinary courses available:

|           |        |  |
|-----------|--------|--|
| 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 |
| EDRD*6000 | [0.50] | Qualitative Analysis in Rural Development                                |

Two additional courses from the following CDE restricted electives group:

|          |        |   |
|----------|--------|---|
| CDE*6290 | [0.50] | Special Topics in Capacity Building and Extension |
| CDE*6311 | [0.50] | Community Engagement and Public Participation     |
| CDE*6320 | [0.50] | Capacity Building for Sustainable Development     |
| CDE*6330 | [0.50] | Facilitation and Conflict Management              |
| CDE*6410 | [0.50] | Readings in Capacity Building and Extension       |
| CDE*6420 | [0.50] | Communication for Social and Environmental Change |
| CDE*6690 | [0.50] | Community Environmental Leadership                |

One open elective [0.50] (one IDS Master's Core Course will fulfill this requirement)

A thesis OR

|          |        |                      |
|----------|--------|----------------------|
| CDE*6900 | [1.00] | Major Research Paper |
|----------|--------|----------------------|

plus two more courses from the restricted electives group (see course list above)

**Economics (MA)**

|           |        |                        |
|-----------|--------|------------------------|
| ECON*6000 | [0.50] | Microeconomic Theory I |
| ECON*6020 | [0.50] | Macroeconomic Theory I |
| ECON*6940 | [1.00] | Research Project       |

One of:

|           |        |                                     |
|-----------|--------|-------------------------------------|
| ECON*6050 | [0.50] | Introduction to Econometric Methods |
|-----------|--------|-------------------------------------|

AND

|           |        |                     |
|-----------|--------|---------------------|
| ECON*6180 | [0.50] | Econometric Methods |
|-----------|--------|---------------------|

OR

|           |        |                |
|-----------|--------|----------------|
| ECON*6140 | [0.50] | Econometrics I |
|-----------|--------|----------------|

**Engineering (MEng in Environmental Engineering or Water Resources Engineering)****IDS Core Courses Required:**

|           |        |  |
|-----------|--------|--|
| IDEV*6100 | [0.50] | International Development Studies Seminar                                    |
| One of:   |        |  |
| SOC*6460  | [0.50] | Gender and Development   |
| ANTH*6460 | [0.50] | Gender and Development   |
| CDE*6420  | [0.50] | Communication for Social and Environmental Change                            |
| SOC*6420  | [0.50] | Global Agro-Food Systems, Communities and Rural Change                       |
| ANTH*6420 | [0.50] | Global Agro-Food Systems, Communities and Rural Change                       |
| SOC*6480  | [0.50] | Work, Gender and Change in a Global Context                                  |
| ANTH*6480 | [0.50] | Work, Gender and Change in a Global Context                                  |
| SOC*6270  | [0.50] | Diversity and Social Equality  |
| ANTH*6270 | [0.50] | Diversity and Social Equality  |
| SOC*6520  | [0.50] | Social Movements and Collective Action                                       |
| One of:   |        |  |
| ECON*6370 | [0.50] | Economic Development in Historical Perspective                               |
| FARE*6600 | [0.50] | Food Security and the Economics of Agri-Food Systems in Developing Countries |
| ECON*6350 | [0.50] | Economic Development   |

One of:

|           |        |  |
|-----------|--------|--|
| POLS*6750 | [0.50] | Development in Practice                          |
| POLS*6730 | [0.50] | The Politics of Development and Underdevelopment |

**Departmental Requirements:**

Six courses from the list of required graduate courses in Engineering (to be selected in consultation with advisor)

Plus one of:

|           |        |  |
|-----------|--------|--|
| ENGG*6950 | [1.00] | Final Project in Environmental Engineering   |
| ENGG*6900 | [1.00] | Final Project in Water Resources Engineering |

**Engineering (MAsc in Environmental Engineering or Water Resources Engineering)****IDS Core Courses Required:**

|           |        |  |
|-----------|--------|--|
| IDEV*6100 | [0.50] | International Development Studies Seminar                                    |
| One of:   |        |  |
| SOC*6460  | [0.50] | Gender and Development   |
| ANTH*6460 | [0.50] | Gender and Development   |
| CDE*6420  | [0.50] | Communication for Social and Environmental Change                            |
| SOC*6420  | [0.50] | Global Agro-Food Systems, Communities and Rural Change                       |
| ANTH*6420 | [0.50] | Global Agro-Food Systems, Communities and Rural Change                       |
| SOC*6480  | [0.50] | Work, Gender and Change in a Global Context                                  |
| ANTH*6480 | [0.50] | Work, Gender and Change in a Global Context                                  |
| SOC*6270  | [0.50] | Diversity and Social Equality  |
| ANTH*6270 | [0.50] | Diversity and Social Equality  |
| SOC*6520  | [0.50] | Social Movements and Collective Action                                       |
| One of:   |        |  |
| ECON*6350 | [0.50] | Economic Development   |
| FARE*6600 | [0.50] | Food Security and the Economics of Agri-Food Systems in Developing Countries |
| ECON*6370 | [0.50] | Economic Development in Historical Perspective                               |
| One of:   |        |  |
| POLS*6750 | [0.50] | Development in Practice  |
| POLS*6730 | [0.50] | The Politics of Development and Underdevelopment                             |

**Departmental Requirements:**

Three courses from the list of required graduate courses in Engineering (to be selected in consultation with advisor)

Thesis

**English (MA)**

Four English courses and a thesis

OR

|                         |        |                  |
|-------------------------|--------|------------------|
| Six English courses and |        |                  |
| ENGL*6803               | [1.00] | Research Project |

**Environmental Sciences (MSc)**

|           |        |  |
|-----------|--------|--|
| ENVS*6900 | [0.50] | Research Seminar in Environmental Sciences |
|-----------|--------|--|

Two other courses in consultation with the department (which may include courses from the IDS core)

Thesis

**Food, Agricultural and Resource Economics (MSc or MFARE)****IDS Requirements**

|           |        |  |
|-----------|--------|--|
| IDEV*6100 | [0.50] | International Development Studies Seminar              |
| One of:   |        |  |
| SOC*6460  | [0.50] | Gender and Development                                 |
| ANTH*6460 | [0.50] | Gender and Development                                 |
| CDE*6420  | [0.50] | Communication for Social and Environmental Change      |
| SOC*6420  | [0.50] | Global Agro-Food Systems, Communities and Rural Change |
| ANTH*6420 | [0.50] | Global Agro-Food Systems, Communities and Rural Change |
| SOC*6480  | [0.50] | Work, Gender and Change in a Global Context            |
| ANTH*6480 | [0.50] | Work, Gender and Change in a Global Context            |
| SOC*6270  | [0.50] | Diversity and Social Equality                          |
| ANTH*6270 | [0.50] | Diversity and Social Equality                          |
| SOC*6520  | [0.50] | Social Movements and Collective Action                 |
| One of:   |        |  |
| GEOG*6340 | [0.50] | Human-Environment Relations                            |
| GEOG*6400 | [0.50] | Urbanization and Development                           |
| GEOG*6450 | [0.50] | Development Geography                                  |
| EDRD*6050 | [0.50] | Farming Systems Analysis and Development               |
| RPD*6291  | [0.50] | Rural Development Administration                       |
| One of:   |        |  |
| POLS*6750 | [0.50] | Development in Practice                                |
| POLS*6730 | [0.50] | The Politics of Development and Underdevelopment       |

**Departmental Requirements**

**Thesis based MSc**

|           |        |  |
|-----------|--------|--|
| FARE*6380 | [0.50] | Applied Microeconomics for Agricultural Economists                           |
| FARE*6970 | [0.50] | Applied Quantitative Methods for Agricultural Economists                     |
| FARE*6910 | [0.50] | Applied Policy Analysis I  |
| 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*6800 | [0.00] | Seminar in Agricultural Economics  |

One additional course  
A thesis

**Note**

\*NB: a departmental course from the policy area may substitute for the Politics course in the IDS core.

**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

**Note**

\*NB: a departmental course from the policy area may substitute for the Politics course in the IDS core

**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*6800 | [0.00] | Seminar in Agricultural Economics  |

along with four additional graduate courses approved by the student's advisory committee. Students in this option are restricted from taking FARE\*6140

**Note**

\*NB: a departmental course from the policy area may substitute for the Politics course in the IDS core

**Geography (MA or MSc)**

|           |        |                                  |
|-----------|--------|----------------------------------|
| GEOG*6090 | [0.50] | Geographical Research Methods I  |
| GEOG*6091 | [0.50] | Geographical Research Methods II |

One other Geography course (which can be taken from the IDS core)  
Either a thesis OR  
GEOG\*6180 [1.00] Research Project in Geography  
plus one other Geography course not taken as part of the IDS core

**History (MA)**

|  |        |  |
|--|--------|--|
| Three History courses<br>OR (only two if the IDS core includes): |        |  |
| ECON*6370  | [0.50] | Economic Development in Historical Perspective |

One of:  
Thesis  
HIST\*6400 [1.00] Major Paper

**Note**

\*NB: a suitably themed departmental course from History may be substituted for a course in the IDS core

**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 |

One of:  
LACS\*6000 [0.50] Research Methods Seminar

|           |        |   |
|-----------|--------|---|
| POLS*6940 | [0.50] | Qualitative Research Design and Methods |
| SOC*6130  | [0.50] | Quantitative Research Methods           |

Plus:  
IDEV\*6100 [0.50] International Development Studies Seminar  
ECON\*6370 [0.50] Economic Development in Historical Perspective  
(or its equivalent)  
SOC\*6520 [0.50] Social Movements and Collective Action  
(or its equivalent)  
Plus:  
LACS\*6100 [1.00] Research Project

**Philosophy (MA)**

|           |        |            |
|-----------|--------|------------|
| PHIL*6950 | [0.50] | MA Seminar |
|-----------|--------|------------|

Additional philosophy courses in consultation with the department  
Either a thesis or research paper (in conjunction with)  
PHIL\*6990 [1.00] Major Research Project

**Political Science (MA)****IDS Requirements:**

|           |        |   |
|-----------|--------|---|
| IDEV*6100 | [0.50] | International Development Studies Seminar |
|-----------|--------|---|

One of:  
SOC\*6460 [0.50] Gender and Development  
ANTH\*6460 [0.50] Gender and Development  
CDE\*6420 [0.50] Communication for Social and Environmental Change  
SOC\*6420 [0.50] Global Agro-Food Systems, Communities and Rural Change  
ANTH\*6420 [0.50] Global Agro-Food Systems, Communities and Rural Change  
SOC\*6480 [0.50] Work, Gender and Change in a Global Context  
ANTH\*6480 [0.50] Work, Gender and Change in a Global Context  
SOC\*6270 [0.50] Diversity and Social Equality  
ANTH\*6270 [0.50] Diversity and Social Equality  
SOC\*6520 [0.50] Social Movements and Collective Action

One of:

|           |        |  |
|-----------|--------|--|
| GEOG*6340 | [0.50] | Human-Environment Relations              |
| GEOG*6400 | [0.50] | Urbanization and Development             |
| GEOG*6450 | [0.50] | Development Geography                    |
| EDRD*6050 | [0.50] | Farming Systems Analysis and Development |
| RPD*6291  | [0.50] | Rural Development Administration         |

One of:

|           |        |  |
|-----------|--------|--|
| ECON*6370 | [0.50] | Economic Development in Historical Perspective                               |
| FARE*6600 | [0.50] | Food Security and the Economics of Agri-Food Systems in Developing Countries |
| ECON*6350 | [0.50] | Economic Development   |

**Departmental Requirements**

|           |        |  |
|-----------|--------|--|
| POLS*6900 | [0.25] | Pro-Seminar                                      |
| POLS*6940 | [0.50] | Qualitative Research Design and Methods          |
| POLS*6730 | [0.50] | The Politics of Development and Underdevelopment |

One of:

Thesis

OR

|           |        |             |
|-----------|--------|-------------|
| POLS*6970 | [1.00] | Major Paper |
|-----------|--------|-------------|

plus one additional course from the Political Science Department (elective)

**Population Medicine (MSc course work)**

|           |        |                         |
|-----------|--------|-------------------------|
| POPM*6200 | [0.50] | Epidemiology I          |
| POPM*6210 | [0.50] | Epidemiology II         |
| POPM*6250 | [1.00] | Project in Epidemiology |

**Note**

\*NB: A student's Population Medicine advisor may require a student to take POPM\*6100 Seminar. POPM\*6950, may be substituted for a Geography course in the IDS core if it is offered as the Global Health or Geographical Epidemiology course.

**Public Health (MPH)**

|           |        |   |
|-----------|--------|---|
| PABI*6500 | [0.50] | Infectious Diseases and Public Health                   |
| POPM*6200 | [0.50] | Epidemiology I  |
| POPM*6510 | [0.50] | Community Health Promotion                              |
| POPM*6520 | [0.50] | Introduction to Epidemiological and Statistical Methods |
| POPM*6530 | [0.50] | Health Communication                                    |
| POPM*6540 | [0.50] | Concepts in Environmental Public Health                 |
| POPM*6550 | [0.50] | Public Health Policy and Systems                        |
| POPM*6560 | [1.00] | Public Health Practicum                                 |
| POPM*6570 | [0.00] | Public Health Capstone                                  |
| POPM*6580 | [0.50] | Public Health Administration                            |

**Note**

\*NB: POPM\*6950, may be substituted for a Geography course in the IDS core if it is offered as the Global Health or Geographical Epidemiology course.

### Public Issues in Anthropology (MA)

#### IDS Requirements:

|           |        |  |
|-----------|--------|--|
| IDEV*6100 | [0.50] | International Development Studies Seminar                                    |
| One of:   |        |  |
| GEOG*6340 | [0.50] | Human-Environment Relations  |
| GEOG*6400 | [0.50] | Urbanization and Development   |
| GEOG*6450 | [0.50] | Development Geography  |
| EDRD*6050 | [0.50] | Farming Systems Analysis and Development                                     |
| RPD*6291  | [0.50] | Rural Development Administration   |
| One of:   |        |  |
| ECON*6370 | [0.50] | Economic Development in Historical Perspective                               |
| FARE*6600 | [0.50] | Food Security and the Economics of Agri-Food Systems in Developing Countries |
| ECON*6350 | [0.50] | Economic Development   |
| One of:   |        |  |
| POLS*6750 | [0.50] | Development in Practice  |
| POLS*6730 | [0.50] | The Politics of Development and Underdevelopment                             |

#### Departmental Requirements:

|           |        |                              |
|-----------|--------|------------------------------|
| ANTH*6080 | [0.50] | Anthropological Theory       |
| ANTH*6140 | [0.50] | Qualitative Research Methods |
| ANTH*6000 | [0.50] | Public Issues Anthropology   |

Either a Thesis and one additional course or

|           |        |             |
|-----------|--------|-------------|
| ANTH*6660 | [1.00] | Major Paper |
|-----------|--------|-------------|

and three additional courses

### Rural Planning and Development (MSc Planning)

#### IDS Requirements:

|           |        |  |
|-----------|--------|--|
| IDEV*6100 | [0.50] | International Development Studies Seminar                                    |
| One of    |        |  |
| SOC*6460  | [0.50] | Gender and Development   |
| ANTH*6460 | [0.50] | Gender and Development   |
| CDE*6420  | [0.50] | Communication for Social and Environmental Change                            |
| SOC*6420  | [0.50] | Global Agro-Food Systems, Communities and Rural Change                       |
| ANTH*6420 | [0.50] | Global Agro-Food Systems, Communities and Rural Change                       |
| SOC*6480  | [0.50] | Work, Gender and Change in a Global Context                                  |
| ANTH*6480 | [0.50] | Work, Gender and Change in a Global Context                                  |
| SOC*6270  | [0.50] | Diversity and Social Equality  |
| ANTH*6270 | [0.50] | Diversity and Social Equality  |
| SOC*6520  | [0.50] | Social Movements and Collective Action                                       |
| One of:   |        |  |
| ECON*6350 | [0.50] | Economic Development   |
| ECON*6370 | [0.50] | Economic Development in Historical Perspective                               |
| FARE*6600 | [0.50] | Food Security and the Economics of Agri-Food Systems in Developing Countries |
| One of:   |        |  |
| POLS*6730 | [0.50] | The Politics of Development and Underdevelopment                             |
| POLS*6750 | [0.50] | Development in Practice  |

#### Departmental Requirements

|          |        |  |
|----------|--------|--|
| RPD*6030 | [0.50] | International Rural Development Planning: Principles and Practices       |
| RPD*6170 | [0.50] | Rural Research Methods   |
| RPD*6240 | [0.50] | Planning and Development Theory  |
| RPD*6291 | [0.50] | Rural Development Administration   |
| RPD*6380 | [0.50] | Application of Quantitative Techniques in Rural Planning and Development |

Plus a thesis and one additional RPD course

OR

|          |        |                      |
|----------|--------|----------------------|
| RPD*6360 | [1.00] | Major Research Paper |
|----------|--------|----------------------|

plus three additional RPD courses

### Note

\*NB: RPD\*6291, Rural Development Administration counts as an IDS core course for Geography.

### Sociology (MA)

|          |        |                               |
|----------|--------|-------------------------------|
| SOC*6070 | [0.50] | Sociological Theory           |
| SOC*6700 | [0.00] | Pro-seminar                   |
| One of:  |        |                               |
| SOC*6130 | [0.50] | Quantitative Research Methods |
| SOC*6140 | [0.50] | Qualitative Research Methods  |

Plus a thesis and one additional Sociology course OR

SOC\*6660 [1.00] Major Paper  
Plus three additional Sociology courses

### 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

|   |
|---|
| <b>IDEV*6000 Regional Context U [0.50]</b>  |
| 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.  |
| <i>Department(s):</i> Dean's Office, College of Social and Applied Human Sciences   |
| <b>IDEV*6100 International Development Studies Seminar U [0.50]</b>   |
| A bi-weekly seminar discussion of issues which arise in the study of international development. Led by faculty and visitors from a variety of disciplines.  |
| <i>Department(s):</i> Dean's Office, College of Social and Applied Human Sciences   |
| <b>IDEV*6500 Fieldwork in International Development Studies U [0.50]</b>  |
| 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 |
| <i>Department(s):</i> 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

**IDEV\*6850 Development Research and Practice W [0.50]**

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.

*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

## 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)

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#### Mark Fenske

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#### Robin Sorbara

Graduate Program Assistant (4014 MacKinnon, Ext. 53508)

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### Graduate Faculty

#### Naseem Al-Aidroos

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#### 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

#### 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

#### Bettina E. Kalisch

Associate Professor, Biomedical Sciences

#### Frederic Laberge

Assistant Professor, Integrative 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

#### Lee Niel

Assistant Professor, Population Medicine

#### Linda A. Parker

Professor and Canada Research Chair, Psychology

#### John Z. Srbley

Assistant Professor, Human Health and Nutritional Sciences

#### Lana M. Trick

Professor, Psychology

#### Patricia V. Turner

Professor, Pathobiology

#### Lori A. Vallis

Associate Professor, Human Health and Nutritional Sciences

#### Terry Van Raay

Assistant Professor, Molecular and Cellular Biology

#### Tina Widowski

Professor, Animal Biosciences

#### Boyer D. Winters

Associate Professor, Psychology

#### John L. Zettel

Assistant Professor, Human Health and Nutritional Sciences

As a practical matter, any faculty member who is approved by the Board of Graduate Studies for graduate faculty status and is a member of a participating unit within the collaborative specialization will be able to advise a master's or doctoral student.

### Associated Graduate Faculty

#### Geoffrey Power

Contractually Limited Faculty, 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 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, as required by University graduate policies. One member on the qualifying exam committee must be a core member of the collaborative specialization in Neuroscience outside the student's home department or a faculty member from another university approved by graduate studies. As well one member of the student's advisory committee must be a core member of the neuroscience collaborative specialization outside the student's home department or a faculty member from another university approved by graduate studies.

### 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

## Toxicology

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

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### Graduate Faculty

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#### M. Anthony Hayes

Professor, Pathobiology

#### Ronald Johnson

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#### P. David Josephy

Professor, Molecular and Cellular Biology

#### Bettina E. Kalisch

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#### Niel A. Karrow

Assistant Professor, Animal Biosciences

#### Gordon M. Kirby

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#### James B. Kirkland

Assistant Professor, Human Health and Nutritional 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                 |