



FACULTY OF GRADUATE STUDIES

## BIOSCIENCE AND POLICY (PHD)

The Doctor of Philosophy (PhD) in Bioscience and Policy is a research-intensive degree that provides advanced training in the life sciences while also training students to place life sciences research into the broader context of a modern society.

This program provides students with theoretical background and technical skill in their field of biology, while also helping them understand implication of bioscience research for policy development and build skills to communicate about their research to a range of audiences. Our students are trained in science and ethics, science and public policy and science in the context of national and international issues.

Students in the program spend the bulk of their time working with a faculty supervisor on a PhD thesis project designed to make a novel scientific contribution in a range of fields such as genetics and genomics, bioinformatics, cell biology, physiology, behavioural ecology, and natural resource management.

In addition to the thesis, students complete a two-part candidacy exam based on their research area during their first two years, and at least 12 credit hours of courses which provide additional training in policy application/development, communication to scientists and non-scientists, and technical skills in bioscience. All students receive training in science communication and participate in at least two science outreach events prior to completion. Expected time to graduate is 4 years with a maximum of 7 years.

### SAMPLE CAREERS

Our program is designed to provide graduates with skills and expertise suited to careers in academia, industry, the non-profit sector, government or as entrepreneurs. Below are a few examples of careers obtained by former Bioscience graduate students:

- Fish and Habitat Protection Biologist, Department of Fisheries and Oceans, Canada
- Senior Wildlife Biologist, WSP Consultants
- Liber Ero Post-Doctoral Fellow, University of Guelph and Nature United
- Faculty Member, Department of Biology, University of Calgary
- Faculty Member, Department of Integrative Biology, University of Guelph

### SAMPLE COURSES

**Bioscience and Policy** This course focuses on the relationship between government, industry and the sciences and the processes that shape science policy. Students gain a better understanding of the role of science policy in government and industry and where policy issues "fit" with respect to legislation.

**Current Topics in Genetics & Genomics** The field of genetics has experienced explosive change in recent years. Advances in molecular techniques and computer sciences make it feasible to address old questions and raise new ones. A consequence of this advancement is the birth of genomics. This course is a combination of readings, oral presentations and discussions that examine current topics in the field.

## MORE SAMPLE COURSES

- Molecular Biotechnology
- Seminars in Biology
- Current Topics in Ecology
- Geographic Information Analysis

---

## ADMISSION REQUIREMENTS

### Admission Requirements for MSc Degree Holder:

Applicants must hold a Master of Science degree, or its academic equivalent, in the discipline of interest or in a closely related discipline from a recognized degree-granting university with a minimum overall GPA of 3.5 on a 4.5 scale and no grade less than B on all graded master's-level courses.

English Requirement (if applicant's first language is not English): Minimum TOEFL score 550 (paper-based), 213 (computer-based), (80) internet-based OR International English Language Testing System IELTS (6.5) OR Duolingo (120). Test must have been taken within two years of the date a completed application is filed. See UWinnipeg [English Language Requirements](#)

### Transfer from the Bioscience MSc to the PhD in Bioscience and Policy:

Students in first year of UWinnipeg's MSc in Bioscience, Technology and Public Policy program who demonstrate superior academic performance may apply to transfer to the PhD in Bioscience and Policy. The transfer must be approved by the Supervisor, Supervisory Committee and Graduate Program Chair.

## HOW TO APPLY

1. Potential students should consult our list of supervisors available [here](#). Students should then contact a potential supervisor doing research in their field and confirm that they have funding to support them and an available opening in their laboratory. It is a good idea to review your proposed supervisor's research via their web page and/or publications and, at minimum, include a resume or C.V. when contacting them.

2. Once you have identified a prospective supervisor, complete the online application form: [uwinnipeg.ca/apply-to-grad-studies](http://uwinnipeg.ca/apply-to-grad-studies)

3. In addition to the completed application form, the following must also be included with the application:

- Transcripts are required from ALL recognized, post-secondary institutions attended, whether or not a degree has been awarded. For initial assessment purposes only, copies of unofficial transcripts are acceptable and preferred. Official transcripts, sent directly from the post-secondary institutions, will only be required if you are recommended for admission.
- Supply two letters of recommendation and reference forms from individuals familiar with your academic work.
- Provide English language requirement (where applicable).
- Other supporting documents *may* include: scanned copies of name change (if applicable), CV/ resumé and proof of permanent residency (if applicable).
- In addition to the maximum 300-word summary of the proposed research on the application form, you may also include up to an additional 2-pages (maximum) describing their proposed research project.
- Official documents should be sent to the Graduate Studies Admissions Office, The University of Winnipeg, 515 Portage Avenue, Winnipeg, MB Canada R3B 2E9.

**Deadline** to submit a complete application package, including all supporting documents is February 1. The vast majority of students begin their program in September but in rare cases (e.g., if a supervisor's funding arrangements require an earlier start) a Spring (May) intake can be considered.

## CONTACT US

E: [bioscience@uwinnipeg.ca](mailto:bioscience@uwinnipeg.ca)

W: <http://www.uwinnipeg.ca/biology/graduate/index.html>

## Graduate Studies Admissions Office

P: 204.786.9309

E: [gradstudies@uwinnipeg.ca](mailto:gradstudies@uwinnipeg.ca)

*In any case where the University's Academic Calendar and this fact sheet differ, the current Calendar takes precedence.*