



FACULTY OF GRADUATE STUDIES

# BIOSCIENCE, TECHNOLOGY AND PUBLIC POLICY (MSc)

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The Master of Science (MSc) in Bioscience, Technology and Public Policy provides advanced training in the life sciences. It also places this body of knowledge into the broader context of a modern society – where scientific advancements can bring not only improvements, but also unforeseen consequences and challenges.

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This program provides students with breadth and depth of knowledge in their field of biology, while developing the skills to communicate effectively and to make informed decisions. Students gain an understanding of the ethical problems facing our society and an appreciation of the full range of human, aesthetic and environmental values. They are trained in science and ethics, science and public policy and science in the context of global relations.

In the program, students can choose to specialize in a wide range of fields such as: genetics, cell biology, physiology, behavioral ecology, natural resource management, and environmental science. Students complete at least 12 credit hours of coursework and undertake a major research project culminating in a Master of Science thesis. The expected time to graduate is 2 to 3 years; the maximum is 5 years.

## SAMPLE CAREERS

This graduate program is designed to provide an excellent basis for a Ph.D. in Biology and related fields. In addition, our graduates are well-qualified for employment in industry, the public-sector, and academia.

## SAMPLE COURSES

**Current Topics in Ecology** This course addresses current topics in ecology, including a range of potential topics from which students can select those of interest. Students may also offer their own topics for presentation. Students will present seminars to the class on chosen topics, and their evaluation will be based upon class participation, and will involve peer assessment.

**Current Topics in Genetics & Genomics** The field of Genetics has experienced fast changes during the last 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 and the evolution of the field into structural, functional and comparative genomics. This course is a combination of readings, oral presentations and discussions that examine current topics in the field of genetics and genomics. A major aspect of the course will be student participation through presentations and discussion of the current literature.

**Seminars in Biology** This course consists of thesis literature review and proposal seminars and thesis research seminars presented by students in their research areas. Attendance by students is mandatory during the four terms of their studies. Students in their first year are expected to present at least, but not exclusively, the appropriate background to their topic of research, the rationale and objectives for their study and some aspects of the methodology. Students in their second year are expected to add to their presentation results and conclusion, and provide an idea of future research directions.

### **MORE SAMPLE COURSES**

- **Directed Studies in Life Sciences**
- **Molecular Biotechnology**
- **Bioscience and Policy**
- **Critical Environmental Issues**
- **Geographic Information Analysis (G.I.A.)**

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### **ADMISSION REQUIREMENTS**

Applicants to the program must hold a recognized 4-Year Bachelor of Science or equivalent with a minimum overall GPA of 3.0 (70%) and no grade less than C+ in the last two years of full time university study.

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). The test must have been taken within two years of the date a completed application is filed.

### **HOW TO APPLY**

1. Complete the online application form:  
<https://oa2.uwinnipeg.ca/OnlineAdmissions/Account/Login?ReturnUrl=%2fOnlineAdmissions>
2. In addition to the completed application form, the following must also be included with the application:
  - a. 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 (uploaded to your application) are acceptable and preferred. Official transcripts will only be required if you are recommended for admission. All official transcripts are to be sent directly from the post-secondary institutions. If the final transcript does not show that a completed degree has been conferred, an official/notarized copy of your diploma is also required.
  - b. Supply two letters of recommendation and reference forms from individuals familiar with your academic work.
  - c. Provide English language requirement (where applicable). Official test scores must be forwarded directly to the Graduate Studies Admissions Office from the testing agency. For initial assessment purposes only, copies of test scores (uploaded to your application) are acceptable and preferred.
  - d. Supply a description and justification of the proposed thesis research project (maximum 2 typed pages).
  - e. Other supporting documents include: scanned copies of name change (if applicable), CV/ resumé and proof of permanent residency (if applicable).
  - f. 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:

Fall (September) Intake – February 1; Spring (May) Intake – February 1. Please note that these deadlines apply to both domestic and international students.

### **CONTACT US**

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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.