

MASTER OF SCIENCE BIOSCIENCE, TECHNOLOGY & PUBLIC POLICY (GBIO)

June 3, 2025

Chair: Professor Craig Willis

Introduction

The Master of Science in Bioscience, Technology and Public Policy (MBIO) program is focused on training students to: 1) Conduct independent, original research that advances scientific knowledge; 2) Master technical aspects of current methods in Bioscience; 3) Place research in the broader applied context of society and understand potential policy applications of their work; and 4) Communicate effectively with scientists and policy makers.

Admission (Deadline February 1)

Applicants will be considered on a case-by-case basis. Applicants must meet the following minimum requirements prior to admission: 1) hold a recognized 4-Year Bachelor of Science or equivalent in the discipline of interest or in a closely related discipline; 2) Provide evidence of scholarly competence demonstrated by a cumulative grade-point average of 3.0 on a 4.5 grade-point scale (70%) with no grade less than C+ in the last two years of full-time university study; 3) The proposed research work of the applicant must complement the supervisor's research program; Applicants must meet The University of Winnipeg English Language Proficiency (ELP) Requirement for Graduate Students.

Applications are available online at the Faculty of Graduate Studies website. Before applying, prospective students should contact and secure a research supervisor from the Department of Biology or a supervisor from another department conducting research relevant to Bioscience. For example, faculty members from Chemistry, Physics, Environmental Studies and Science, Kinesiology and Applied Health, and Geography have all supervised students in the program. A current list of potential supervisors is available [Graduate Degrees in Bioscience webpage](#) although other faculty members from the departments listed above may be accepting students. Further inquiries should be emailed to the [Bioscience Graduate Program Chair](#).

REQUIREMENTS FOR AN MSc IN BIOSCIENCE, TECHNOLOGY & PUBLIC POLICY

Students are enrolled in the MBIO program for a minimum of two years and take a minimum of 12 credit hours of courses. A major research project culminating in a Master of Science thesis must be completed and successfully defended to graduate from the program. As a condition of admission, each MSc student must have a supervisor who is a member of the Faculty of Graduate Studies at the University of Winnipeg and belongs to a relevant Department at the University of Winnipeg (see above) or is an adjunct professor in the Dept. of Biology at The University of Winnipeg. The supervisor provides direction to the student on the program of study, directs research, and supervises thesis work. The student must also have a thesis committee including the supervisor and at least two other faculty members to help guide and review thesis research. Course work includes three elements: core Bioscience courses; courses in BioScience & Technology and courses that place science in the broader context of society. Students are required to obtain a minimum average GPA of 3.0 and no grade less than B in all required coursework.

Courses:

Students must complete a combination of required courses (and elective courses if required). Supervisors may assign more than the minimum 12 credit hours for a student degree program. With the exception of Seminars in Biology, and at the discretion of the Bioscience Graduate Program Chair, students are allowed to substitute up to 3 credit hours with a course taken from a different Institution.

Required:

- GBIO 7101 (3) Seminars in Biology (continuing throughout registration period)
- GBIO 7111 (0) Thesis course (continuing throughout registration period)
- GBIO 7103 (3) Bioscience and Policy

Electives:

Minimum 3 credits from Core Bioscience Curriculum

- GBIO 7402 (3) Current Topics in Ecology
- GBIO 7304 (3) Current Topics in Genetics & Genomics
- GBIO 7100 (3) Directed Studies in Life Sciences

Minimum 3 credits from Bioscience & Technology Curriculum

- GBIO 7201 (3) Molecular Biotechnology
- GBIO 7202 (3) Geographic Information Analysis (G.I.A.)
- GBIO 7102 (3) Directed Studies in Biosciences and Technology
- GBIO 7104 (3) Analysis of Biological Data
- GBIO 7204 (3) Bioinformatics Biotechnology

Other Bioscience and Policy Curriculum courses that might be of interest:

- MULTI 7219 (3) Summer Institute - Infectious Diseases Policy
- ENV/GBIO 4617/7617 (3) Ecology and management of species at risk
- GBIO-7614 (3) Critical Environmental Issues