

# EARTH SCIENCES, M.SC.

## Earth Sciences

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(<https://umanitoba.ca/environment-earth-resources/earth-sciences/>)

**Academic Staff:** Please refer to the Riddell website (<https://umanitoba.ca/environment-earth-resources/faculty-staff/#department-of-geological-sciences>) for Faculty information.

## Earth Sciences M.Sc. Program Information

The Master of Science program requires completion of a minimum of 9 credit hours of approved courses, and a research project and thesis.

## Admission Information

### Admission to the Faculty of Graduate and Postdoctoral Studies

Application and Admission Procedures are found in the Academic Guide (<https://catalog.umanitoba.ca/graduate-studies/academic-guide/application-admission-registration-policies/>).

Admission requirements for Master's students are found in the Master's Degrees General Regulations ([https://catalog.umanitoba.ca/graduate-studies/academic-guide/masters-degrees-general-regulations/#Admission\\_FGSMasters](https://catalog.umanitoba.ca/graduate-studies/academic-guide/masters-degrees-general-regulations/#Admission_FGSMasters)) section of the Guide.

### Earth Sciences M.Sc. Admission Requirements

The normal entry requirement is the equivalent of an Honours B.Sc. degree in Earth Sciences from the University of Manitoba. Students with honours degrees in related disciplines (such as Geography, Soil Science, Biology, Chemistry, Environmental Science, Physics, Mathematics, Engineering Physics, and Earth, Civil and Electrical Engineering) may be accepted by the Graduate Admissions Committee providing their planned degree program involves studies in the Earth sciences. The majority of the required courses taken by the student should normally be from the Department of Earth Sciences. The research should also be in the Earth sciences

### Pre-Master's Option

This unit offers a Pre-Master's program of study (<https://catalog.umanitoba.ca/graduate-studies/academic-guide/general-regulations-pre-masters/>). The Pre-Master's program of study is intended to bring a student's background up to the equivalent of the required 4-year degree in the major department/unit, and to provide the student with any necessary prerequisites for courses to be taken in the Master's program. Completing the Pre-Master's program does not guarantee acceptance to the Master's program.

## Application Information

Students should complete and submit their online application with supporting documentation by the date indicated on the M.Sc. Earth Sciences program of study (<https://umanitoba.ca/explore/programs-of-study/earth-sciences-msc/>) page.

## Degree Requirements

### Program Requirements

The M.Sc. program requires a thesis plus a minimum of 9 credit hours which includes:

Course	Title	Hours
GEOL 7760	Seminar in Geological Sciences	3
Select a minimum of 6 credit hours of approved courses at the 7000 level		6
<b>Total Hours</b>		<b>9</b>

Depending on the student's background and needs, the Advisory Committee may assign additional courses at the 3000 level or above.

**Expected Time to Graduate:** 2 years

### Progression Chart

Course	Title	Hours
<b>Year 1</b>		
GRAD 7300	Research Integrity Tutorial	0
GRAD 7500	Academic Integrity Tutorial	0
GEOL 7760	Seminar in Geological Sciences	3
7XXX	Approved courses at 7000 level	6
3XXX or above	Additional courses at 3000 level or above as assigned by the Advisory Committee	
	<b>Hours</b>	<b>9</b>
<b>Year 2</b>		
GRAD 7000	Master's Thesis	0
	<b>Hours</b>	<b>0</b>
	<b>Total Hours</b>	<b>9</b>

Coursework is normally completed in Year 1, and thesis is normally completed Year 2 – 3. Adjustments may be made with the supervisor's consultation and approval.

Students are required to complete a M.Sc. thesis proposal (normally within 8 months of start of program). The proposal must include an introduction with citation of relevant literature, the research objectives, the proposed methodology including a timetable, the anticipated significant of the research, and references. A proposed budget must be appended to the proposal.

Students are required to submit a report (proposals, results and timetable of thesis work) to the Head on or before February 1 annually. The report is generally 1 to 2 pages in length.

Students must produce a thesis that is appropriate for the M.Sc. degree being sought and must successfully defend their thesis as determined by the assigned examining committee. Further information on the format is available from the Department of Earth Sciences.

## Registration Information

Students should familiarize themselves with the Faculty of Graduate and Postdoctoral Studies 'GRAD' courses applicable to their program (<https://catalog.umanitoba.ca/graduate-studies/registration-information/>). If you have questions about which GRAD course(s) to register in, please consult your home department/unit.

All students must consult with their advisor prior to registration and present a completed Program Form to the administrative assistant. The selection of courses and changes in a student's program must be approved by their advisor in the case of Master's students or their advisory committee in the case of doctoral students.

Students should consult the administrative assistant regarding the schedule of graduate course offerings in the department. Please note that some courses require a field component to be run before lectures begin in the fall. Courses with insufficient enrolment may be cancelled well in advance of the first week of lectures.

## **Regulations**

Students must meet the requirements as outlined in both Supplementary Regulation and BFAR documents as approved by Senate.

### **Supplementary Regulations**

Individual units may require specific requirements above and beyond those of the Faculty of Graduate and Postdoctoral Studies, and students should consult unit supplementary regulations (<https://umanitoba.ca/graduate-studies/supplementary-regulations/>) for these specific regulations.

### **Bona Fide Academic Requirements (BFAR)**

Bona Fide Academic Requirements (BFAR) (<https://catalog.umanitoba.ca/graduate-studies/academic-guide/academic-performance-general/#BFAR>) represent the core academic requirements a graduate student must acquire in order to gain, and demonstrate acquisition of, essential knowledge and skills.

All students must successfully complete:

- GRAD 7300 prior to applying to any ethics boards which are appropriate to the student's research or within the student's first year, whichever comes first; and
- GRAD 7500 within the first term of registration;

unless these courses have been completed previously, as per Mandatory Academic Integrity Course (<https://catalog.umanitoba.ca/graduate-studies/academic-guide/academic-performance-general/#GRAD7500>) and Mandatory Research Integrity Online Course (<https://catalog.umanitoba.ca/graduate-studies/academic-guide/academic-performance-general/#GRAD7300>).

Students must also meet additional BFAR requirements (<https://umanitoba.ca/graduate-studies/student-experience/core-academic-requirements/#additional-requirements-by-program>) that may be specified for their program.

### **General Regulations**

All students must:

- maintain a minimum degree grade point average of 3.0 with no grade below C+,
- meet the minimum and not exceed the maximum course requirements, and
- meet the minimum and not exceed the maximum time requirements (in terms of time in program and lapse or expiration of credit of courses).