

# BIOLOGICAL SCIENCES, PH.D.

Biological Sciences

Head: Gary Anderson

Campus Address/General Office: 212 Biological Sciences Building

Telephone: 204-474-9610

Fax: 204-474-7604

Email Address: [biograd@umanitoba.ca](mailto:biograd@umanitoba.ca)

Website: [sci.umanitoba.ca/biological-sciences/](https://sci.umanitoba.ca/biological-sciences/) (<https://sci.umanitoba.ca/biological-sciences/>)

## Biological Sciences Program Information

The department offers graduate training leading to Master of Science and Doctor of Philosophy degrees in a broad range of biological disciplines in both field and laboratory research.

## Admission Information

### Admission to the Faculty of Graduate 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 doctoral students are found in the Doctor of Philosophy General Regulations (<https://catalog.umanitoba.ca/graduate-studies/academic-guide/doctor-philosophy-general-regulations/>) section of the Guide.

### Biological Sciences Ph.D. Admission Requirements

Applicants are required to have a Master's degree in Biology (or equivalent). Candidates normally have completed a M.Sc. degree before entering the Ph.D. program; however under certain circumstances transfer from a M.Sc. to Ph.D. program and entry into the Ph.D. without a M.Sc. is possible. Individual qualifications other than these will be considered.

## Application Information

Students should complete and submit their online application with supporting documentation by the date indicated on the Biological Sciences Ph.D. program of study ([https://umanitoba.ca/faculties/graduate\\_studies/admissions/programs/bio\\_sci.html](https://umanitoba.ca/faculties/graduate_studies/admissions/programs/bio_sci.html)) page.

## Degree Requirements

**Admission to the Ph.D. from a Master's Degree:** a minimum of six credit hours of graded course work at the 7000 level (including the core course BIOL 7220: Critical Thinking in Biological Sciences), and a thesis are required.

**Admission to the Ph.D. from an Honours Bachelor's Degree or equivalent:** a minimum of 12 credit hours of graded course work at the 7000 level (including two core courses, BIOL 7100: Core Skills in Biological Sciences Research and BIOL 7220: Critical Thinking in Biological Sciences), and a thesis are required.

Upon recommendation by the Advisory Committee, the student may be required to take additional coursework beyond the minimum requirement.

**Expected Time to Graduate:** 3 - 4 years

## Progression Chart

Where admission is directly from Master's<sup>1</sup>:

Course	Title	Hours
<b>Year 1</b>		
GRAD 7300	Research Integrity Tutorial	0
GRAD 7500	Academic Integrity Tutorial	0
BIOL 7220	Critical Thinking in Biological Sciences	3
BIOL 7XXX	Major subject at 7000 level	3
<b>Hours</b>		<b>6</b>
<b>Year 2</b>		
GRAD 8020	Doctoral Re-registration	0
GRAD 8010	Doctoral Candidacy Examination	0
<b>Hours</b>		<b>0</b>
<b>Year 3</b>		
GRAD 8020	Doctoral Re-registration	0
<b>Hours</b>		<b>0</b>
<b>Year 4</b>		
GRAD 8020	Doctoral Re-registration	0
GRAD 8000	Doctoral Thesis	0
<b>Hours</b>		<b>0</b>
<b>Total Hours</b>		<b>6</b>

<sup>1</sup> Where admission to the Ph.D. is directly from a Master's Degree, a minimum of six (6) credit hours of graded course work at the 7000 level (including the core course BIOL 7220), and a thesis are required.

Where admission is directly from an Honours Bachelor's Degree or equivalent<sup>1</sup>:

Course	Title	Hours
<b>Year 1</b>		
GRAD 7300	Research Integrity Tutorial	0
GRAD 7500	Academic Integrity Tutorial	0
BIOL 7100	Core Skills in Biological Sciences Research	3
BIOL 7220	Critical Thinking in Biological Sciences	3
BIOL 7XXX	Major subject at 7000 level	6
<b>Hours</b>		<b>12</b>
<b>Year 2</b>		
GRAD 8020	Doctoral Re-registration	0
GRAD 8010	Doctoral Candidacy Examination	0
<b>Hours</b>		<b>0</b>
<b>Year 3</b>		
GRAD 8020	Doctoral Re-registration	0
<b>Hours</b>		<b>0</b>
<b>Year 4</b>		
GRAD 8020	Doctoral Re-registration	0
GRAD 8000	Doctoral Thesis	0
<b>Hours</b>		<b>0</b>
<b>Total Hours</b>		<b>12</b>

<sup>1</sup> Where admission to the Ph.D. is directly from an Honours Bachelor's Degree or equivalent, a minimum of 12 credit hours of graded course work at the 7000 level (including two core courses, BIOL 7100 and BIOL 7220), and a thesis are required.

## Registration Information

Students should familiarize themselves with the Faculty of Graduate 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.

## 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 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 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).