

# PATHOLOGY AND LABORATORY MEDICINE, PH.D.

## Pathology

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**Academic Staff:** Please refer to the Pathology website (<https://umanitoba.ca/medicine/department-pathology/faculty-staff/>) for Academic staff information.

## Pathology Program Information

The Department of Pathology offers programs of study leading to a Master of Science or Doctor of Philosophy degree. The Ph.D. in Pathology and Laboratory Medicine program focuses on the research at the molecular, tissue, animal and clinical levels to understand the changes associated with diseases.

## 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.

### Pathology and Laboratory Medicine Ph.D. Admission Requirements

Applicants must hold an M.Sc. degree in a related Biological Science or any related medical field discipline. The minimum standard for acceptance into the Department of Pathology is a 3.2 Grade Point Average (GPA) or equivalent in the last two previous years of full time university study (60 credit hours).

## Application Information

Students should complete and submit their online application with supporting documentation by the date indicated on the Pathology and Laboratory Medicine Ph.D. program of study (<https://umanitoba.ca/explore/programs-of-study/pathology-laboratory-medicine-phd/>) page.

## Degree Requirements

The Ph.D. in Pathology and Laboratory Medicine program consists of a minimum 12 credit hours of coursework and a supervised research project to be presented as an acceptable thesis.

Students are required to take, and achieve a minimum grade of B in, IMED 7212 Introduction to Disease Mechanisms (3 CH), as well as 9

credit hours of 7000 or 8000 level courses. Course selection should be made in consultation with the student's advisor.

Additional requirements include attendance at the Annual Departmental Research Day and at least one Departmental presentation each year. Weekly Grand Round Seminar Series is optional but students are encouraged to attend whenever possible.

**Expected Time to Graduate:** 4 years

### Progression Chart

Course	Title	Hours
<b>Year 1</b>		
GRAD 7500	Academic Integrity Tutorial	0
GRAD 7300	Research Integrity Tutorial	0
IMED 7212	Introduction to the Mechanisms of Disease	3
Thesis proposal		
<b>Hours</b>		<b>3</b>
<b>Years 1-2</b>		
Electives at the 7000 or 8000 level		9
<b>Hours</b>		<b>9</b>
<b>Year 3</b>		
GRAD 8010	Doctoral Candidacy Examination <sup>1</sup>	0
<b>Hours</b>		<b>0</b>
<b>Year 4</b>		
GRAD 8000	Doctoral Thesis	0
<b>Hours</b>		<b>0</b>
<b>Total Hours</b>		<b>12</b>

<sup>1</sup> The Ph.D. candidacy exam is normally initiated within 3 years of beginning Ph.D. studies. The written component of the exam is in the form of a grant proposal to a major funding agency.

## 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 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).