

# PATHOLOGY, M.SC.

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 a program of study leading to a Master of Science degree. Honours Science graduates with a strong background in biology can carry out coursework, plus one of: a research-based program and thesis; or, a practicum leading to a paramedical qualification as a Pathologist's Assistant.

## 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 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.

### Pathology M.Sc. Admission Requirements

Admission requirements are those of the Faculty of Graduate Studies.

## Application Information

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

## Degree Requirements

### M.Sc. Research/Thesis-based Program

All students in this program are required to take a minimum of 9 credit hours of coursework, to carry out a supervised research project, and to present an acceptable thesis.

Maximum time to complete the program is 4 years for full-time students.

### M.Sc. Pathologists' Assistant Practicum Stream

All students are required to successfully complete the major courses as listed in Progression Chart below. Further requirements include:

1. Complete a Medical Terminology workbook/course at the start of the program.
2. Complete a log book of a required number of surgical and autopsy cases.

3. A written and Practical Examination is given at the completion of PATH 7036 and PATH 7042, for which students must acquire a Pass grade/or a grade equivalent to a B.
4. Successfully complete a research/practicum project on a subject related to Pathology work.

It is highly recommended that students complete this program in 2 years.

## Progression Chart

### Pathologists' Assistant Practicum Stream

A student must have passed the following courses outlined below and must have achieved a minimum grade of a B average in Introduction to Disease Mechanisms (IMED 7212). Students will also have to successfully complete a research/practicum project on a subject related to Pathology work and it will be defended as a Thesis.

Course	Title	Hours
<b>Year 1</b>		
ANAT 7478	Human Gross Anatomy: Musculoskeletal	3
ANAT 7480	Human Gross Anatomy: Trunk (Thorax, Abdomen, Pelvis)	3
IMED 7212	Introduction to the Mechanisms of Disease	3
PATH 7032	Pathologists Assistant Field Practicum I	4
PATH 7120	Diseases of Human Organ Systems	1.5
PATH 7034	Pathologists Assistant Field Practicum II	4
PATH 7036	Pathologists Assistant Field Practicum III	4
Research/Practicum Project <sup>1</sup>		
GRAD 7500	Academic Integrity Tutorial	0
GRAD 7300	Research Integrity Tutorial	0
<b>Hours</b>		<b>22.5</b>
<b>Year 2</b>		
GRAD 7000	Master's Thesis	0
ANAT 7482	Human Gross Anatomy: Head and Neck	3
PATH 7130	Clinical Pathological Correlations 1	1.5
PATH 7038	Pathologists Assistant Filed Practicum IV	4
PATH 7140	Clinical Pathological Correlations 2	1.5
PATH 7042	Pathologists Assistant Field Practicum V	4
Research/Practicum Project <sup>2</sup>		
<b>Hours</b>		<b>14</b>
<b>Total Hours</b>		<b>36.5</b>

<sup>1</sup> Student will begin to start working on their research/practicum project on a subject related to Pathology work.

<sup>2</sup> Student should almost be completed their research/practicum project which they will present by the end of summer term.

### Research/Thesis-Based Program

All students in the program are required to take a minimum of 9 credit hours of coursework, to carry out a supervised research project, and to present an acceptable thesis.

Course	Title	Hours
<b>Year 1</b>		
GRAD 7300	Research Integrity Tutorial	0
GRAD 7500	Academic Integrity Tutorial	0
IMED 7212	Introduction to the Mechanisms of Disease	3

GRAD 7XXX	Additional Graduate Courses <sup>1</sup>	6
Thesis Outline <sup>2</sup>		
<b>Hours</b>		<b>9</b>
<b>Year 2</b>		
GRAD 7000	Master's Thesis <sup>3</sup>	0
<b>Hours</b>		<b>0</b>
<b>Total Hours</b>		<b>9</b>

<sup>1</sup> Additional credit hours at the 7000 level are mandatory to a total a minimum of 9 credit hours. These additional courses vary from student to student and course select will be made in consultation with the advisor.

<sup>2</sup> Three months following the commencement of their program and following consultation with their supervisor, the student should submit a detailed thesis outline to their committee for advice and approval. The outline should be 1-2 pages long, adhering to the following format: Introduction (Background); Hypothesis; Objectives; Proposed Methods/ Potential Significance of Work.

<sup>3</sup> Students continue to work on their thesis. Students are required to allow 4 weeks for members of their advisory committee to read their thesis or practicum prior to the oral exam

[catalog.umanitoba.ca/graduate-studies/academic-guide/academic-performance-general/#GRAD7300](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).

## 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://>