

PATHOLOGY, M.SC.

Pathology

Head: Dr. Gabor Fischer

Campus Address/General Office: 401 Brodie Centre, 727 McDermot Avenue

Telephone: 204-789-3212

Fax: 204-789-3931

Email Address: pathology@umanitoba.ca

Website: umanitoba.ca/medicine/medicine/departments-pathology/
(<https://umanitoba.ca/medicine/medicine/departments-pathology/>)

Academic Staff: Please refer to the Pathology website (<https://umanitoba.ca/medicine/departments-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 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) 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
Year 1		
GRAD 7300	Research Integrity Tutorial	0
GRAD 7500	Academic Integrity Tutorial	0
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 7034	Pathologists Assistant Field Practicum II	4
PATH 7036	Pathologists Assistant Field Practicum III	4
PATH 7120	Diseases of Human Organ Systems	1.5
Research/Practicum Project ¹		
Hours		22.5
Year 2		
GRAD 7000	Master's Thesis	0
ANAT 7380	Human Developmental Anatomy (Embryology)	3
ANAT 7468	Human Histology: Basic Tissues and Organ Systems	3
ANAT 7482	Human Gross Anatomy: Head and Neck	3
PATH 7038	Pathologists Assistant Field Practicum IV	4
PATH 7042	Pathologists Assistant Field Practicum V	4
PATH 7130	Clinical Pathological Correlations 1	1.5
PATH 7140	Clinical Pathological Correlations 2	1.5
Research/Practicum Project ²		
Hours		20
Total Hours		42.5

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

² 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
Year 1		
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 ¹	6
Thesis Outline ²		
Hours		9
Year 2		
GRAD 7000	Master's Thesis ³	0
Hours		0
Total Hours		9

¹ 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.

² 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.

³ 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

- 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).

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.

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: