

Master of Applied Molecular and Health Sciences

MAMHS

A first-of-its-kind in Canada, the Master of Applied Molecular and Health Sciences (MAMHS) is a one-year, course-based graduate program that blends advanced molecular biology with emerging fields, such as AI-driven drug discovery, immunology, and stem cell research models. The program provides both technical proficiency and professional development, preparing students for impactful careers in biotechnology, biomanufacturing, therapeutic development, and precision medicine.

uoguelph.ph/mamhs

PROGRAM

The Master of Applied Molecular and Health Sciences is a one-year, course-based program (three semesters, or 12 months) starting in the winter semester (January) each year. Students complete eight core courses over three semesters.

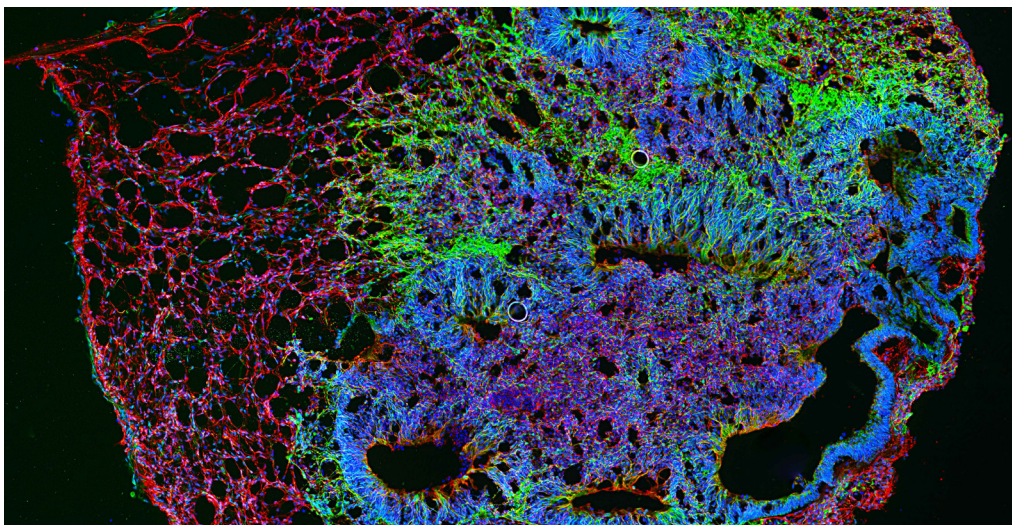
The program culminates with two capstone courses, which integrate the knowledge and skills students have learned throughout the program, with a focus on technical and leadership expertise.

TRAINING

MAMHS students gain intensive, hands-on training in the lab, accessing state-of-the-art tissue culture, microscopy, genomics, and mass spectrometry facilities, and through computational projects, harnessing machine learning and molecular modelling tools to analyze data, predict drug-target interactions, and accelerate discovery.

ADMISSION REQUIREMENTS

To be admitted into this program, students must have successfully completed an undergraduate/baccalaureate degree in an honours program or the equivalent from a recognized university in molecular biology, biotechnology, biochemistry, immunology, or related field. The minimum average for admissions is B- in the last two years of full-time equivalent study. Students must also have taken the following prerequisite courses: 1) one course in molecular biology, cellular biology, genetics, immunology, or microbiology; 2) one lab technique or methods course in biology or chemistry; and, 3) one course in biochemistry or structural biology.



If the students' first language is not English, they will be required to submit an acceptable result from one of the approved standardized English language tests. Minimum acceptable test scores:

- TOEFL: minimum 93, with a minimum score of 22 in each of the four categories.
- IELTS: minimum 7.0, with a minimum of 6.5 in each component.
- Duolingo: , minimum 130, with a minimum score of 120 in each of the four categories.

Language test exemptions will be granted students with degrees completed in English from a university in Canada, Australia, New Zealand, the United States, and/or the United Kingdom.

Please note that these test score requirements are higher than the general university requirements. We cannot accept applicants with test scores lower than the minima stated above.

Application Deadline

Applications for the first cohort will open in early October, with studies beginning in January 2026

ARE YOU INTERESTED IN:

- Biotechnology
- Biomanufacturing
- Drug development
- Precision medicine

CAREER OPPORTUNITIES:

- Bioinformatics analyst
- Biomanufacturing specialist
- Biotechnologist
- Clinical research associate
- Public health policy analyst
- Regulatory affairs specialist
- Scientific advisor
- Vaccine developer

CONTACT INFORMATION

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