MIMM 501/502 D1, D2
Independent Studies in Microbiology and Immunology

Honours Research Project; 12 Credits*

Course Coordinator:
Dr. Irah King (irah.king@mcgill.ca)

www.mcgill.ca/microimm/student-affairs/courses/mimm502

3 Main Learning Outcomes

By the end of this course, students will be able to:

1. To design and execute a **hands-on research project** in *Immunology* or in *Molecular Microbiology*

2. To **write** a scientific proposal and manuscript

3. To **present** a research seminar at the conclusion of the course.

Course Structure & Content
Laboratory component

- Devote at least 40% of your academic efforts working in a laboratory
- With a supervisor you will design a hypothesis-driven research project, complementing the PI's long-term program
- Propose project specific aims and organize experiments through regular discussion and direction from the PI
- Acquire scientific background about a selected project by reading and learning
- Master skills at the bench, acquiring expertise and techniques in a laboratory setting

Course Structure & Content:
in-class component

~15 classes throughout the year (mostly in the Fall semester) that focus on skills for scientists

***Includes your required participation in PHGY531 in the Fall Semester**

- Evolve from competition towards collaboration as colleagues
- Learn and practice communication tools (writing and oral presentation)
- Engage with clinicians and scientists from diverse disciplines
- Learn about scientific, philosophy, ethics and integrity
- Hone writing skills by creating research proposals and manuscripts
- Present your scientific achievements at student research day

MIMM 501 / 502:
Eligibility Requirements

- Must be a MIMM student
- CGPA > 3.5* by the end of Fall term of U2
- All required courses completed at end of U2, winter term
- Commitment from a supervisor
- Space is limited ~20 students*
- Application receives final approval from coordinator

*subject to change depending on the number of applicants

Application Procedure

Submit the following to Christine de Santis (undergrad.microimm@mcgill.ca) by **Jan 11, 2027**:

1. Statement of interest in MIMM 501/502 (1 sentence)
2. Subject area identified (Micro or Immuno)
3. Unofficial McGill transcript

Application Procedure

*Eligible students will be notified the following week and provided an **entrance exam** (short answer, 3-5 questions) to complete

Entrance exam: You can use AI to search for and/or collate general information, but:

1. It is your responsibility to verify specific information
2. If I suspect that you are using it to formulate “new” ideas or copy/paste text into your essay, you will fail the exam.

Submit to undergrad.microimm@mcgill.ca; Deadline TBD

You will then be informed in February 2027 whether you are eligible to find a supervisor

Eligible students must find a supervisor

- Prospective Supervisors
  - **ANY** McGill Professor performing research related to microbiology and/or immunology
  - Have replied to course coordinator indicating willingness to accept an honours student
  - List of available supervisors emailed to all interested students in the first week of February

- Student-Supervisor Match Making
  - Student's responsibility to contact potential supervisor for interview
  - Meet with at least 3 supervisors, if possible
  - Consider topics, size, locations of laboratories when choosing
  - Present, agree, and co-sign *Guidelines* (provided to eligible students)

Full Application

Eligible students must provide the following:

1. Signed Letter of agreement between supervisor and student
2. Description of project: 2 paragraphs written by the supervisor using template provided upon application submission

Submit the 3 docs to Christine (undergrad.microimm@mcgill.ca) by **Monday, April 5, 2027**

Notice of acceptance by end of April 12, 2026

MIMM 501 / 502 classes

- Mondays 14:35 to ~17:00h
- Location: Duff 507/509
- Autumn: ~5 in-class sessions (*not including PHGY531*)
- Winter: ~3 in-class sessions
- Honours research day in late April 2028

Do you want to get started early in your Honours lab?

- Start in the summer (may-august 2025)
- Personal agreement with your supervisors
- Funding opportunities
  - www.mcgill.ca/studentaid/
  - www.mcgill.ca/medresearch/students-postdocs/biomedical/nserc
  - Canadian Association of Gastroenterology (https://www.cag-acg.org)
  - Canadian Institutes of Health Research (http://www.cihr-irsc.gc.ca/e/193.html)

Final Comments

- Reach out to current Honours students
- Identify specific projects/research programs that interest you
- Interview with 2-3 professors and come prepared with simple questions related to research and lab culture
- Submit application to Christine on/before **January 11, 2027** → submit entrance exam by midnight, **Deadline TBD**
  → results by **March, 2026**
- Submit student-supervisor agreement to Christine by Friday, **Monday, April 6, 2026**
- **PHGY531 is a required course as part of the Honours program**

*Those that are not accepted into the program should consider MIMM496/497: full-year research project, 6 credits