

DALHOUSIE UNIVERSITY, Faculty of Science Course Syllabus
Department of Microbiology and Immunology

MICI 4703/4704 Directed Research Project
Fall/Winter/Summer 2024-2025

Dalhousie University is located in Mi'kma'ki, the ancestral and unceded territory of the Mi'kmaq. We are all Treaty people

Coordinator: Dr. Nikhil Thomas (n.thomas@dal.ca)

Supervisor: To be determined

Office hours: By scheduled appointment, *Tupper Building, 7-K3*

Course Description

This is an advanced course with an overarching aim to carry out a research project in the discipline of microbiology, immunology, cancer research, or a related area of science. Students will engage in experimental research under the supervision of a Faculty member with an appointment or affiliation to the Department of Microbiology and Immunology. An original project report detailing the research performed and the major findings is submitted for assessment and grading purposes.

Course Prerequisites

Permission of the Undergraduate Studies Committee and a member of the Department who will serve as a supervisor. At least a B average for MICI, 3114.03, 3115.03 and 3119.03.

Course Objectives/Learning Outcomes

Students will obtain knowledge and practice of the scientific method, including hypothesis driven research. Students will gain practical skills of experimentation and laboratory techniques related to the subject (i.e. project) area. It is expected that the student will become familiar and knowledgeable with pertinent scientific literature related to the project. Moreover, the student will learn data presentation and statistical methods related to the project. Overall, students will become familiar with basic and/or clinical research activities that are commonly performed in academic, industrial, and government laboratories.

Course Materials

All laboratory reagents and materials are to be provided by the research supervisor. Students are expected to be familiar with standard operating protocols of the laboratory, along with first hand knowledge of biosafety and biosecurity procedures. The student should maintain a laboratory notebook with pertinent observations and data records.

Course Assessment: (80% project report, 20% laboratory performance)

Final project report is due: To be determined after meeting with student.

Conversion of numerical grades to Final Letter Grades follows the Dalhousie Common Grade Scale

The student's final grade will be a letter grade. The final grade will be derived as follows: the marks from **all evaluations** will be tabulated, assigned weighted values, and then applied to the scale below.

A+	90-100
A	85-89
A-	80-84
B+	77-79
B	73-76
B-	70-72
C+	65-69

C	60-64
C-	55-59
D	50-54
F	less than 50

Policy of Missed Assessments

Students missing any scheduled test (or exam) for **valid reasons** will be given an opportunity to take the test at a later date. Students with known time/date conflicts are strongly encouraged to consult the course coordinator to discuss any options that are available.

Policy on Accessibility for Students with Disabilities

Students may request accommodation as a result of barriers related to disability, religious obligation, or any characteristic under the Nova Scotia Human Rights Act. Students who require academic accommodation for either classroom participation or the writing of tests, quizzes and exams should make their request to the Advising and Access Services Center (AASC) prior to or at the outset of the regular academic year. Please visit www.dal.ca/access for more information and to obtain the Request for Accommodation Form.

Policy on plagiarism, cheating, and late assignments

All students should read and be familiar with the University position and policies on Academic Integrity: http://www.dal.ca/dept/university_secretariat/academic-integrity.html. Any late lab assignments will be subjected to a penalty of 15%.

Expectancy of Attendance and Collaboration

Students are expected to perform a minimum of 6 hours per week (not including reading or lab preparation time).

Faculty Evaluation

The course will be evaluated by using the University's online Student Ratings of Instruction (SRI) system, allowing for feedback on the course material, faculty and teaching assistant performance and course design. The Microbiology and Immunology Undergraduate Committee will also evaluate and review the course to ensure that it is meeting the needs of the students.

Other helpful resources

- The Dalhousie Writing Centre, Killam Library
https://www.dal.ca/campus_life/academic-support/writing-and-study-skills.html
- Career Services Centre <http://www.dal.ca/csc>
- Counselling services
https://www.dal.ca/campus_life/health-and-wellness/services-support/student-health-and-wellness.html
- International Student & Exchange Services <http://www.dal.ca/ises>
- Society of Immunology and Microbiology Students (SIMS)