

Dalhousie University
Faculty of Health Sciences / Department of Microbiology and Immunology
HEALTH SCIENCES MICROBIOLOGY: MICI-1100
Winter term, January- April 2025

Course Co-ordinator: Dr. Glenn Patriquin
Dept. of Pathology, Div. of Microbiology, QEII HSC
Rm 326 MacKenzie Building
5788 University Ave.
glenn.patriquin@dal.ca

Additional Instructors: Dr. Ross Davidson
Dept. of Pathology, Div. of Microbiology, QEII HSC
Rm 309 MacKenzie Building
5788 University Ave.
ross.davidson@nshealth.ca

Dr. Ian Davis
Dept. of Medicine, Div. of Infectious Diseases
Dept. of Pathology, Div. of Microbiology, QEII HSC
Rm 315 MacKenzie Building
5788 University Ave.
ian.davis@nshealth.ca

Dr. Elizabeth Simms
Dept. of Pathology, Div. of Microbiology, QEII HSC
Rm 315 MacKenzie Building
5788 University Ave.
elizabeth.simms@nshealth.ca

Lectures Location and Time: M-W-F; 8:35-9:25am, **Tupper Theatre B** [in-person only]
No Laboratories/tutorials

Start Date: **January 6, 2025**

Recordings: Lectures are not recorded
Lecture slides are posted on Brightspace

Course Learning Material:

Textbook (not required but may help): Microbiology, Alternate Edition with diseases by body system.
5th Ed. 2015. Robert W. Bauman. Pearson Benjamin Cummings
Publishers (online or hard copy).
Previous editions are also acceptable.

NOTE: an electronic version of a free alternative/supplemental introductory Microbiology text can be accessed at [openstax](https://openstax.org).
Page references for this text will not be provided for lectures.

Communication:

Please use email to ask questions, for any routine communications or to make appointments (available at request – virtual or in-person). Emails are reviewed 9-5 Monday to Friday. Class announcements (for class cancellations from storms, for example) will be posted to Brightspace.

Course Description:

The MICI 1100 course is given under the auspices of the Department of Microbiology and Immunology of the Faculty of Medicine to meet the needs of students working toward degrees in Nursing and other health-oriented disciplines. The course emphasises the nature and the interaction of micro-organisms and humans, including the risks and circumstances that predispose to acquisition of organisms, the manifestations of infection, and how we approach these infections to detect and control them. Students in the Nursing program can register for the course, but other students need to have permission to register from the course coordinator.

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 A. A note taker may be required as part of a student's accommodation. If you are interested, please contact AASC at 494-2836 for more information. Please note that your classroom may contain specialized accessible furniture and equipment. It is important that these items remain in the classroom, untouched, so that students who require their usage will be able to participate in the class.

Evaluation:

- **Tests will be conducted in-person**, in the lecture room (Tests 1 and 2) or as arranged by the university (Test 3). Questions may be multiple choice, true/false or matching. Tests are completed independently and are not open-book.
- Evaluations will include the material covered in the lectures and the handouts.
- Material from the textbook will not be directly tested – the role of the course textbook is to provide context and deeper understanding of the lecture material.

Assignment (25%): Independent, no collaboration. Details in class. Due March 21st, 2024.

First Test (Section 1) (25%): January 29, 2025, 8:35-9:25 a.m.

Second Test (Section 2) (25%): March 10, 2025, 8:35-9:25 a.m.

Third Test (Section 3)(25%): To be scheduled by university.

1. It is the student's responsibility to be aware of the time and date of tests. It is departmental policy that these dates may not be changed. Supplemental exams are provided only in case of illness. They will be individually arranged (Check with GP).
2. The final mark will consist of the sum of the scores from the tests and the paper. Percentages as letter grades are as follows (following the Dalhousie grading system):

Scale

A+ (90-100)	B+ (77-79)	C+ (65-69)	D (50-54)
A (85-89)	B (73-76)	C (60-64)	F (<50)
A- (80-84)	B- (70-72)	C- (55-59)	

Course Waivers

The waiver policy is that of the university. While waivers are being sought, students must continue in class until final notification. Failure to follow this procedure is not grounds for granting a waiver.

Course Evaluation Sheets

Course evaluation sheets will be circulated prior to the conclusion of the course. We ask you to complete these questionnaires and return them so that we can adjust the class for next year, and get feedback on the textbook.

Course Information/ Marks Posting

Updates or information related to the course, including exam results, will be posted on the Brightspace system.

Late submission of the Paper:

Permission to delay submission of the paper can only be given in advance and for significant reasons. **The penalty for late submission of the paper is a deduction of 5% off the final mark value of the paper for each working day late. Papers will not be accepted if they are more than 6 working days late.**

Software or Internet Problems (if applicable, based on university pandemic policies)

Should you encounter software or internet problems (Screen freezes, internet is down or a weak signal) while completing an assessment that is *time sensitive*, you must:

- Immediately take a screen shot of your screen, (with the error message, spinning wheel of death or other issue) using another electronic device (phone, tablet). Ensure you capture the date and time.

Contact the instructor via email using another electronic device, attaching the screenshot. This email will be time stamped to allow the instructor to determine if allowances will be made in terms of marking.

MICI 1100 COURSE OUTLINE SCHEDULE - January-April 2025

Class No.	Date	Topic	Lec.	Relevant chapters
SECTION 1				
1	Jan 6	Introduction: Class Organization, Historical Development, Bacterial Morphology & Taxonomy	GP	1
2	Jan 8	Taxonomy, Structures	GP	3, 4
3	Jan 10	Bacterial Growth Requirements, Metabolism	GP	5
4	Jan 13	Sterilization, Disinfection,	GP	9
5	Jan 15	Bacterial Pathogenicity, Virulence, and Bacterial genetics	GP	7, 14
6	Jan 17	Antibiotics (General Principles)	RD	10
7	Jan 20	Antibiotics (Agents Active Against Cell Wall Synthesis, Protein Synthesis, and Others)	RD	10
8	Jan 22	Diarrhea and Intra-abdominal Infections (including Enteropathogens and C. difficile)	GP	23
9	Jan 24	Skin, Bone, and Tissue Infections (Staphylococci, Streptococci, Anaerobes)	GP	19
10	Jan 27	Bloodstream infections and endocarditis	GP	21
11	Jan 29	TEST 1		
SECTION 2				
12	Jan 31	Urinary Tract Infections (Gram Negatives)	RD	24
13	Feb 3	Respiratory Infections I (Pneumococci, Haemophilus, Pertussis,)	RD	22
14	Feb 5	Respiratory Infections II (Tuberculosis and Agents of Atypical Pneumonias)	RD	22
	Feb 7	MUNRO DAY – UNIVERSITY CLOSED		
15	Feb 10	Sexually Transmitted Disease (Gonorrhoea, Chlamydia, HSV, and Syphilis)	GP	24
16	Feb 12	Meningitis and Central nervous system infections	GP	20
17	Feb 14	Virology (Introduction)	RD	13
	Feb 17-21	STUDY WEEK – CLASSES CANCELLED		
18	Feb 24	Virology (Herpes Viruses)	RD	23
19	Feb 26	Virology (HIV and AIDS)	RD	
20	Feb 28	Virology (Hepatitis Viruses)	RD	23
21	Mar 3	Virology (Respiratory Viruses)	RD	22
22	Mar 5	Virology (Childhood Viruses)	RD	Various
23	Mar 7	Virology (Enteric, HPV and miscellaneous viruses)	GP	Various
24	Mar 10	TEST 2		

SECTION 3				
25	Mar 12	Infections of International Public Health Significance	ES	14
26	Mar 14	Mycology	ES	Various
27	Mar 17	Parasitology	ID	Various
28	Mar 19	Lyme, Q fever, and Rickettsial disease	ID	21
29	Mar 21	Infection Control *** ASSIGNMENT DUE BY 23:59 TONIGHT ***	ID	14
30	Mar 24	The Immune system/Immunocompromised host	GP	15, 16, 18
31	Mar 26	Immunization and Vaccines 1	GP	17
32	Mar 28	Immunization and Vaccines 2	GP	17
33	Mar 31	Immunology in Diagnostic Testing	GP	17
34	Apr 2	Use of Laboratory and Collection of Specimens	GP	Various
35	Apr 4	Specimen processing in the Laboratory	GP	Various
	APR 9-25	Third Test – scheduled by university		

Lecturers:

GP: Dr. Glenn Patriquin

RD: Dr. Ross Davidson

ES: Dr. Elizabeth Simms

ID: Dr. Ian Davis

SECTION B: UNIVERSITY POLICIES, STATEMENTS, GUIDELINES and RESOURCES for SUPPORT

University Policies and Statements

This course is governed by the academic rules and regulations set forth in the University Calendar and by Senate

Academic Integrity

At Dalhousie University, we are guided in all of our work by the values of academic integrity: honesty, trust, fairness, responsibility and respect (The Center for Academic Integrity, Duke University, 1999). As a student, you are required to demonstrate these values in all of the work you do. The University provides policies and procedures that every member of the university community is required to follow to ensure academic integrity.

Information: https://www.dal.ca/dept/university_secretariat/academic-integrity.html

Plagiarism. Instructors may use software such as Urkund or Google to check the originality of any work submitted for credit, in accordance with the [Student Submission of Assignments and Use of Originality Checking Software Policy](#)

Penalties for Academic Dishonesty

In accordance with Senate Policy, penalties will range from a **failing grade** on an assignment to **suspension** and/or **expulsion** from the university.

Accessibility

The Advising and Access Services Centre is Dalhousie's centre of expertise for student accessibility and accommodation. The advising team works with students who request accommodation as a result of a disability, religious obligation, or any barrier related to any other characteristic protected under Human Rights legislation (Canada and Nova Scotia).

Information: https://www.dal.ca/campus_life/academic-support/accessibility.html

Student Code of Conduct

Everyone at Dalhousie is expected to treat others with dignity and respect. The Code of Student Conduct allows Dalhousie to take disciplinary action if students don't follow this community expectation. When appropriate, violations of the code can be resolved in a reasonable and informal manner—perhaps through a restorative justice process. If an informal resolution can't be reached, or would be inappropriate, procedures exist for formal dispute resolution.

Code: https://www.dal.ca/dept/university_secretariat/policies/student-life/code-of-student-conduct.html

Diversity and Inclusion – Culture of Respect

Every person at Dalhousie has a right to be respected and safe. We believe inclusiveness is fundamental to education. We stand for equality. Dalhousie is strengthened in our diversity. We are a respectful and inclusive community. We are committed to being a place where everyone feels welcome and supported, which is why our Strategic Direction prioritizes fostering a culture of diversity and inclusiveness

Statement: <http://www.dal.ca/cultureofrespect.html>

Recognition of Mi'kmaq Territory

Dalhousie University would like to acknowledge that the University is on Traditional Mi'kmaq Territory. The Elders in Residence program provides students with access to First Nations elders for guidance, counsel and support. Visit or e-mail the Indigenous Student Centre (1321 Edward St) (elders@dal.ca).

Information: https://www.dal.ca/campus_life/communities/indigenous.html

Important Dates in the Academic Year (including add/drop dates)

<https://academiccalendar.dal.ca/Catalog/ViewCatalog.aspx?pageid=viewcatalog&catalogid=117&chapterid=-1&topicgroupid=31821&loaduseredits=False>

University Grading Practices

https://www.dal.ca/dept/university_secretariat/policies/academic/grading-practices-policy.html

Student Resources and Support

Advising

General Advising https://www.dal.ca/campus_life/academic-support/advising.html

Science Program Advisors: <https://www.dal.ca/faculty/science/current-students/undergrad-students/degree-planning.html>

Indigenous Student Centre: https://www.dal.ca/campus_life/communities/indigenous.html

Black Students Advising Centre: https://www.dal.ca/campus_life/communities/black-student-advising.html

International Centre: https://www.dal.ca/campus_life/international-centre/current-students.html

Academic supports

Library: <https://libraries.dal.ca/>

Writing Centre: https://www.dal.ca/campus_life/academic-support/writing-and-study-skills.html

Studying for Success: https://www.dal.ca/campus_life/academic-support/study-skills-and-tutoring.html

Copyright Office: <https://libraries.dal.ca/services/copyright-office.html>

Fair Dealing Guidelines <https://libraries.dal.ca/services/copyright-office/fair-dealing.html>

Other supports and services

Student Health & Wellness Centre: https://www.dal.ca/campus_life/health-and-wellness.html

Student Advocacy: <https://dsu.ca/dsas>

Ombudsperson: https://www.dal.ca/campus_life/safety-respect/student-rights-and-responsibilities/where-to-get-help/ombudsperson.html

Safety

Biosafety: <https://www.dal.ca/dept/safety/programs-services/biosafety.html>

Chemical Safety: <https://www.dal.ca/dept/safety/programs-services/chemical-safety.html>

Radiation Safety: <https://www.dal.ca/dept/safety/programs-services/radiation-safety.html>

Scent-Free Program: <https://www.dal.ca/dept/safety/programs-services/occupational-safety/scent-free.html>