

MICR303: IMMUNOLOGY
COURSE OUTLINE FALL 2020

INSTRUCTORS

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TEXTBOOK: Janeway's Immunobiology, 9th Edition.

LECTURE FORMAT:

Lectures will be **pre-recorded and posted on CourseSpaces**. Lectures will consist of Powerpoint presentations with audio and videos. Notes are arranged by topic, and a single topic may span multiple lectures. Not all material will be written down in the notes; some points will be highlighted in a verbal manner. Students are responsible for synthesizing all materials covered in the course presentations.

A. Synchronous Class Discussions: Thursdays, 11:30-12:50.

These live sessions will include a review of posted material, questions, exercises, quizzes, and the Group Project, via the Zoom link that will be posted on the course website (see also a separate detailed document of the Course Schedule). Student video and audio should be turned off during the recorded live sessions. Questions can be asked via the Chat function or by turning on the audio/video. Students are expected to review the posted lecture material prior to these sessions. The sessions will be recorded and posted. Not all classes will run the full 80 min.

****Participation in the Synchronous classes is required in order to receive the participation mark.***

*****Students MUST sign into the Zoom link using their UVIC ID in order to be admitted to the meeting.***

B. Independent review of material: Mondays, 11:30-12:50.

The Monday class is dedicated to independent review of posted lectures; a formal class will not be held during this time.

OFFICE HOURS:

Thursdays, 12:50-1:50 after the live class session OR via an appointment at a different time, OR via email. An on-going, open Discussion board will also be available on the course site for students to ask questions.

COURSE CONTENT*

1. Introduction to the Immune System	Principles of innate and adaptive immunity (Ch.1)
2. Innate Immunity	Anatomical barriers; antimicrobial peptides complement; innate cell types and effector mechanisms; pattern recognition. (Ch. 2,3)
3. Adaptive Immunity	Antigen and antigen-presentation; generation of lymphocyte antigen receptors; T cell activation; T cell subsets and effector mechanisms; antibodies and antibody production. (Elements of Ch. 4,5,6,7,9,10)
4. Immunological memory	Memory B/T cells (Ch. 11)
5. Vaccination	Example composition, methods (Ch. 16)
6. Generation of tolerance and regulatory mechanisms	B, T cell development, central and peripheral tolerance and mechanisms preventing auto-reactivity (Ch. 8)
7. Autoimmunity	Disorders associated with the immune system attacking self; underlying factors, including defects in tolerance. (Ch. 15)
8. Immunity at mucosal surfaces	Immunology of the mucosal system and host-microbiota interactions. (Ch.12)
9. Hypersensitivity and Allergy	Allergy and allergic diseases; relationship with the microbiota (Ch. 14)
10. Immunity to infectious pathogens and pathogen evasion strategies	Immune responses to select bacterial, parasitic and viral pathogens; mechanisms by which pathogens evade the immune system. (Ch. 13)
11. Tumor immunology	Tumor immune environment, immunotherapy with Dr. Brad Nelson

**a single topic may span several lectures*

ASSESSMENT OF STUDENT PERFORMANCE

(1) Techniques to be used:

- Grading of questions on exams and quizzes (multiple choice, matching, short answer and longer answer) and on a group project, with assignment of a numerical mark to each question.

- Exams are based on material covered in lectures and synchronous sessions (slides, whiteboard, discussions). Lectures are based on information from the text and other sources. Textbook reading is recommended to reinforce information discussed in class, and to provide additional details for those that are interested. Students will not be examined on information in the textbook or on other source material that is not covered in class.

- Quizzes and exams: completed online via BrightSpace on select days (see schedule).

Quizzes: DURING CLASS TIME on THURSDAYS for a period of 40 min.

Midterms: 2 h to complete, held in the evening. Between 6:00 PM and 10:00 PM, students can complete the midterm. Once opened, students are permitted 2 h to complete the exam. The 6-10:00 window gives some flexibility with initiation time.

- Quizzes and Exams are “open-book”, such that class notes can be consulted, but students are expected to study as if they were writing in class in order to complete the tests within the

designated time frame. Students are obligated to write exams and quizzes on their own, without the assistance of others or use of the internet and other non-class resources.

•The Group project will involve reading a manuscript and answering questions as a group. Attendance for the Group project discussion is mandatory in order to receive the grade. No deferrals will be granted for missing the group project.

(2) Evaluation and Weighting:

Component	Date	Contribution
Midterm I	Oct. 1	20%*
Midterm II	Nov. 5	20%
Final Exam	TBA	35%
Quizzes	Sept. 24 Oct. 15 Nov. 12	15%
Group project	Nov. 19	5%
Participation		5%

**Of the 2 midterms: the lowest and highest grade will contribute 15 and 25 marks, respectively*

(3) Grading Scheme:

A⁺	90 - 100	B⁺	77 - 79	C⁺	65 - 69	F	< 50
A	85 - 89	B	73 - 76	C	60 - 64	N*	< 50
A⁻	80 - 84	B⁻	70 - 72	D	50 - 59		

* N grades

Students who have completed the following elements will be considered to have completed the course and will be assigned a final grade: **Midterm 1, Midterm 2, at least 2 quizzes, and the Final Exam.** Failure to complete one or more of these elements will result in a grade of “N” regardless of the cumulative percentage on other elements of the course. An N is a failing grade, and it factors into a student’s GPA as 0. The maximum percentage that can accompany an N on a student’s transcript is 49. Students are responsible for ensuring that they are properly registered in the course, and are expected to have met all pre/co-requisites for the course.

DEPARTMENT INFORMATION AND POLICIES

1. The Department of Biochemistry and Microbiology upholds and enforces the University’s policies on academic integrity. These policies are described in the current University Calendar. All students are advised to read this section.

2. Cell phones, computers, and other electronic devices must be turned off at all times during live class sessions unless being used for a the purpose of connecting and engaging with the relevant to the class.

3. No recordings of live lectures are permitted without permission of the instructor. Many online courses will be recorded by the instructor for accessibility for students unable to attend. If you do not wish to be recorded, contact your instructor to determine if alternative arrangements can be made.

4. Course materials, such as notes, problem sheets, quizzes, examinations, example sheets, or review sheets, may not be redistributed without the explicit written permission of the instructor.

5. Students are expected to be available for all exams. Instructors may grant deferrals for midterm examinations for illness, accident, or family affliction. Although and students do not require documentation, students must contact their instructor and BCMB office (biocmicr@uvic.ca) with the

reason for their absence within 48 hours after the midterm exam. The Department will keep a record of the absences. It is the responsibility of the student to ensure all required components are complete, and to arrange deferred exams/assignments with the instructor, which normally should occur within one week of the original exam date.

6. The Department of Biochemistry and Microbiology considers it a breach of academic integrity for a student taking a deferred examination to discuss the exam with classmates. Similarly, students who reveal the contents of an examination to students taking an deferred examination are considered to be in violation of the University of Victoria policy on academic integrity (see current University Calendar). Students must abide by UVic academic regulations and observe standards of scholarly integrity (no plagiarism or cheating). Online exams must be taken individually and not with a friend, classmate, or group, nor can you access notes, course materials, the internet, or other resources without the permission of the instructor. You are prohibited from sharing any information about the exam with others. Use of unauthorized electronic devices and accessing the internet and class material during exams is prohibited unless permission is granted by the instructor. Instructors may use Browser Lockdown Software to block access during classes and exams.

7. Deferral of a final exam must be requested with an Academic Concession form and submitted directly to Undergraduate Records. Deferred final exams for fall term courses will be arranged by the instructor. Deferred final exams for spring term courses will be arranged through Undergraduate Records and must be written before the end of the summer term as stipulated in the University Calendar.

8. Requests for review/remark of a midterm exam must be made within one week of the exam being returned.

9. The instructor reserves the right to use plagiarism detection software or other platforms to assess the integrity of student work.

10. Supplemental exams or assignments will not be offered to students wishing to upgrade their final mark.

11. Anonymous participation in online classes is not permitted without written permission of the instructor.

The current pandemic is placing added stressors-financial, mental, and physical-on everyone. Your wellbeing is of foremost importance. If you are experiencing difficulties coping, the University has resources to help. Reach out to Counselling Services, the Centre for Academic Communication, or Learning Assistance Program for assistance.

CENTER FOR ACCESSIBLE LEARNING: Students with diverse learning styles and needs are welcome in this course. In particular, if you have a disability/health consideration that may require accommodations, approach the Centre for Accessible Learning (CAL) as soon as possible in order to assess your specific needs. <https://www.uvic.ca/services/cal/index.php>

COURSE EXPERIENCE SURVEY (CES): We value your feedback on this course. Towards the end of term you will have the opportunity to complete a confidential course experience survey (CES) regarding your learning experience. The survey is vital to providing feedback regarding the course and teaching, as well as to help the department improve the overall program for students in the future. When it is time for you to complete the survey, you will receive an email inviting you to do so. If you do not receive an email invitation, you can go directly to your CES dashboard. You will need to use your UVic NetLink ID to access the survey, which can be done on your laptop, tablet or mobile device. You will be reminded nearer the time but please be thinking about this important activity.