MICR 200A
Introductory Microbiology I
Fall 2021
CRN 12307

Instructor:

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Territorial Acknowledgement:

We acknowledge and respect the lək̓ʷəŋən peoples on whose traditional territory the university stands and the Songhees, Esquimalt and W̱SÁNEĆ peoples whose historical relationships with the land continue to this day.

Lecture time and location*:*

Monday and Thursday, 8:30 – 9:50, ECS 123

Office Hours and Extra Help*:* I will **NOT** be holding face-to-face meetings in my office. I will be available online via Zoom (link on Brightspace) on Mondays from 1pm – 3pm. Outside of these times I can be reached via email.

Course Delivery*:* the course will be delivered face-to-face, the lectures will be recorded and posted for asynchronous viewing (warning: if technical issues arise, recordings may not be available). Due to potentially changing conditions surrounding SARS-CoV2, situations may arise where I will not be able to deliver lectures face to face. In these instances, lectures will be held live via Zoom (see Brightspace for link) and recorded.

Brightspace site: a Brightspace site will be maintained for this course. Some, but not all, lecture notes will be made available. It contains the following sections:

General Information: course outline, course timeline, discussion forum, contact information and other course administration material.

Lecture Materials: this section has everything you will need for the lecture component of the course.

Lecture notes: here you will find the pdf notes to use during lectures

Lecture Recordings: live lectures will be recorded and posted here. This is the Fall 2021 version of the course.

Zoom Links: links for office hours and Friendly Scientist social hours can be found here.

Textbook Chapter Problems: practice problems from the textbook publisher.

Quizzes and Exams: this will be split into sections for the the Academic Integrity Quiz, Exit Competency Quiz, topic quizzes, midterms and final exam. Online quizzes and midterms will be located here. Midterm and final exam sections will also include practice problems.

Academic Intergrity Quiz: you must score 100% on this quiz before you will be allowed to write any Participation Quizzes or Midterms. This can be found in the Quizzes and Exams section.

Exit Competency Quiz: this is a short online quiz that you must complete before you will be allowed to write the final exam. It will open during the final week of class. It is not open book, and you should not study. It is just to assess the overall microbiology knowledge students have by the end of the course. These exams will not be used in any manner to assess students individually. I will use overall class data to improve my teaching methods.

Laboratory: Laboratory manuals are available to order and pick-up or ship from the bookstore.

Note: Laboratory sessions start during the week of September 13th. See the schedule in the Lab manual or the Lab Brightspace page for more information. Attendance is mandatory, and a passing mark in the laboratory portion is required in order to obtain credit for the course. Additionally, students that have missed more than two laboratory sessions will not be able to

MICR200A LEARNING OBJECTIVES

Students will gain insight into historical events that initially identified microbes. Processes used to establish the role of microbes in important processes such as disease will also be examined and students will be able to compare these methods to modern techniques utilized in the field of microbiology.

The major structural components of bacteria, archae and eukaryotes will be described. Utilizing this information, students will be able to compare the structures between these organisms, and rationalize why they have evolved specific adaptations.

Conditions for growth of microbes, both in natural and laboratory settings will be examined. Students will demonstrate the ability to apply this knowledge to both identify and classify microbes. Additionally, students will learn to categorize microbes based on a variety of phenotypic and genotypic traits.

Metabolic pathways will be described in the context of microbes, and compared to more complex systems, particularly humans. The suitability of using bacteria as a model organism for higher order eukaryotic organisms will be appraised.

Students should be able to describe the basics of virion structure, virus replication, viral gene regulation and the difficulties of making anti-viral drugs and vaccines for example viruses such as polio, flu, HIV and phage. We will include a special section on SARS-CoV2.

The laboratory component of the course will introduce basic microbiology techniques. By completion of the course, students will be capable of performing aseptic technique, as well as isolating, visualizing and identifying microbes.

Important dates and evaluation:

Evaluation and important dates:

Academic Integrity Quiz:

You must score 100% on this quiz before you can complete any subsequent quizzes. You can make multiple attempts.

Topic Quizzes:

There will be six topic quizzes, worth 0.5% each. These are participation quizzes, and any learner getting at least one correct answer will receive the full 0.5%. Quizzes must be completed by Friday, December 03 at 4pm.

Midterms:

There are two online midterms, each worth 11% of your final grade. They will be held on Monday, September 27 and Monday, October 25. Exams can be started between 8:30am – 8:30pm, and once you start you will have 60 minutes (1 hour) to complete the exam. Midterm exams are non-cumulative. You may use materials posted on the course Brightspace site, your textbook and your notes. You may NOT work with other students or use additional resources, including internet resources.

Final Exam:

The final will be held in person, with the time and date to be determined by the Registrar. This is a closed book exam.

EVALUATION	Date
11% midterm exam 1 (covers Topic 1)	***via Brightspace, Mon., September 27. Learners must start between 8:30am and 8:30pm; once you start you will have 60 minutes to complete***
11% midterm exam 2 (covers Topic 2)	***via Brightspace, Mon., October 25. Learners must start between 8:30am and 8:30pm; once you start you will have 60 minutes to complete***
35% final exam (covers Topics 3 – 6)	***2 hours, set by registrar***
40% laboratory	***based on laboratory components (summaries, quizzes, laboratory exam etc.). See lab manual for grading details***
3% participation mark for online quizzes	***new quizzes will be posted approximately biweekly. You have until the last day of class, December 04, to complete the quizzes, however, there will be suggested completion times that will align the quizzes with our tutorials.***

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 the purpose of connecting and engaging with the class.

3. No recordings of live lectures are permitted without permission of the instructor. However, many 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. Students and instructors are expected to assess their health daily and avoid campus if they are ill.

5. 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.

6. Students are expected to be

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

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

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

Important note about COVID-related stress

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. Please reach out to Counselling Services, the Centre for Academic Communication, or Learning Assistance Program for assistance.

Centre 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