

**MICR 200A**  
**Introductory Microbiology I**  
**Fall 2020**  
**CRN 12277**

**Class time/location:** This course will be delivered as a combination of live online tutorials and prepared video lectures. Student assessments will be delivered online through Brightspace. Students must sign in with their UVic accounts (yourname@uvic.ca) to access online sessions, course materials, and test materials.

In-person tutorials (live sessions) or midterms will be every Thursday from 8:30 – 9:50. There is no class on Thursday, November 12. Students must attend all tutorial sessions. If you miss more than three sessions, there will be a 1% penalty / missed tutorial.

**Instructor:** Dr. Doug Briant  
**email:** [dbriant@uvic.ca](mailto:dbriant@uvic.ca)  
**office hours:** TBA on Brightspace

**Textbook:** Brock's Biology of Microorganisms (16th Edition), M. T. Madigan, K. S. Bender, D. H. Buckley, W. M. Sattley and D. A. Stahl. 2021, Pearson Education Inc.

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

**Note:** Laboratory Live Zoom Sessions start during the week of September 14th. See the schedule on page iv in the Lab manual or the Lab Brightspace page for more information. Attendance in the Live Zoom Session 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 Zoom sessions will not be able to complete the course and will receive a grade of "N".

**Lecture Notes:** Notes will be available on the Brightspace site. Notes are arranged by topic, and a single topic may span multiple lectures. **Lecture notes are not complete**, and students will be responsible for all materials covered in the lectures.

**Video Lectures and Tutorials:** Lecture material will be presented as a series of video lectures. Several videos will be assigned each week, with the videos and schedule available on Brightspace. Assigned videos will be reviewed and discussed during Thursday tutorial sessions. It will be your responsibility to watch these prior to the scheduled tutorial. There will be bi-weekly topic quizzes covering the material from two tutorials.

**Online Participation Quizzes:** There will be six online practice quizzes. Each is worth 0.5% participation mark. You must get at least one answer correct to receive your participation mark.

**Midterms:** There will be two midterms. These will be offered online on Thursday, October 01 and Thursday, October 29. Exams will be open from 8:30 – 9:50.

## **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.
- 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.

### **Topic Schedule:**

<b>topic</b>	<b>textbook chapters</b>
<b>1) Introduction</b> <b>-history</b> <b>-visualization</b> <b>-structure</b>	1 – 2
<b>2) Metabolism</b>	3, 7, 14
<b>3) Nutrition and Growth</b> <b>-general intro to growth</b> <b>-culture media</b> <b>-morphology and replication</b> <b>-controlling microbial growth</b>	3, 4, 8, 29
<b>4) Diversity of Microbes</b> <b>-phylogeny</b> <b>-microbe classification</b>	13, 15 – 18
<b>5) Viruses</b>	8, 10, 11, 30

**Important dates and evaluation:**

EVALUATION	Date
19% midterm exam 1	<b><i>in class (8:30 – 9:50)</i></b> Thursday, October 01
19% midterm exam 2	<b><i>in class (8:30 – 9:50)</i></b> Thursday, October 29
19% final exam	<b><i>2 hours, set by registrar</i></b>
40% laboratory	<b><i>based on laboratory components (summaries, quizzes, laboratory exam etc.). See lab manual for grading details</i></b>
3% participation mark for online quizzes	<b><i>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.</i></b>

- Students are responsible for ensuring that they are properly registered in the course.
- Students are expected to have met all pre/co-requisites for the course (see above).

***Conversion of marks to final letter grades:***

The total mark, calculated from the marks on all of the exams according to the weighting scheme above, will be converted to a percentage and then to a letter grade in the following way:

<b>A<sup>+</sup></b>	90 - 100	<b>B<sup>+</sup></b>	77 - 79	<b>C<sup>+</sup></b>	65 - 69	<b>F</b>	< 50
<b>A</b>	85 - 89	<b>B</b>	73 - 76	<b>C</b>	60 - 64	<b>N **</b>	< 50
<b>A<sup>-</sup></b>	80 - 84	<b>B<sup>-</sup></b>	70 - 72	<b>D</b>	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:

***\*\* both midterms and the final exam must be completed in order to complete the course \*\****

***\*\* students must pass both the lab and lecture portion to complete the course \*\****

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

## **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 purpose 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 students do not require documentation, students must contact their instructor and BCMB office ([biocmicr@uvic.ca](mailto: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 a deferred examination are considered to be in violation of the University of Victoria policy on academic integrity (see current University Calendar). 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.

### ***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. 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>

### ***Course Experience Survey (CES)***

*I 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 to me regarding the course and my 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. I will remind you nearer the time but please be thinking about this important activity.*