MICR200B Introductory Microbiology II CRN 22229 Winter 2017

Class time/location: Tues, Wed, Fri, 11:30 – 12:20, MacLaurin A144

Instructor: Dr. Doug Briant email: dbriant@uvic.ca

office: Petch 227

**Office hours**: to be announced in lecture

<u>Textbook:</u> <u>Brock Biology of Microorganisms</u> (14th Edition), M.T. Madigan, J.M. Martinko, K.S. Bender, D.H. Buckley and D.A. Stahl, 2015, Pearson.

<u>i>clickers:</u> students will require their own i>clicker for in class participation marks in both the lecture and laboratory components. i>clickers are available in the bookstore

Laboratory: Laboratory manuals are available in the bookstore

**Note:** Laboratory classes start during the week of January 09. Laboratory attendance is mandatory, and a passing mark in the laboratory portion is required in order to obtain credit for the course

<u>CourseSpaces site:</u> a CourseSpaces site will be maintained for this course. Some, but not all, lecture notes will be made available

### Learning Objectives:

The genetics of microbes will be introduced. Students will recognize the importance that genetic processes play in both health and industry.

Interactions between microbes and the environment will be described. Students will be expected to apply their knowledge of genetics, as well as biochemical pathways (from MICR200A) to analyze how microbes not only survive in a particular environment, but how they actually shape their physical environment. Students will evaluate how environmental manipulation by microbes impacts ecosystems. This theme will be carried into humans as a microbial environment. Students will recognition both beneficial and harmful (pathogenic) interactions between human hosts and microbes. Strategies to protect humans from disease will be described. Students will be expected to apply different strategies to protect and promote human health.

# Tentative Class Schedule:

	topic	dates	text (subject to revision)
1)	Prokaryotic and Eukaryotic organisms	Jan.04 - 10	14 – 17
2)	Scientific Method	Jan. 11	NA
3)	Genetics and Molecular Biology	Jan. 13 - 31	4, 6
	Midterm 1	Jan. 20	15% of final grade
4)	Environment	Feb. 01 – 21	18 – 21
5)	Microbial Interactions	Feb. 22	22
	Midterm 2	Feb. 24	15% of final grade
6)	Bacteria and Human Disease	Feb. 28 – Mar.14	23, 28 – 32
7)	Immunology	Mar. 15 - 24	24 – 26
8)	Microbes and Industry	Mar. 28 – 31	21
	Final Exam	ТВА	2 hrs, 27% of final grade

# Important dates and evaluation:

EVALUATION	Date
15% midterm 1 exam	<i>in class</i> Friday, January 20, 2017
15% midterm 2 exam	<i>in class</i> Friday, February 24, 2017
27% final exam	2 hours, set by registrar
40% laboratory	based on laboratory components (reports, quizzes, laboratory exam etc.). See lab manual for grading details
3% lecture participation (requires i>clicker)	≥80% class participation, 3% ≥70% class participation, 2% ≥60% class participation, 1% <60% class participation, 0% * participation is measured by response to i>clicker questions in lecture

- 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).

# **Grading:**

$\mathbf{A}^{\dagger}$	90 -100	B⁺	77 - 79	C <sup>+</sup>	65 - 69	F	<	50
Α	85 - 89	В	73 - 76	С	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:

 Both midterm exams and the final exam must be completed 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 unless being used for a purpose relevant to the class. Students having a cell phone, tablet, or computer on their person during an exam will be assumed to have it for the purpose of cheating.
- Any recordings of lectures may only be performed with written permission of the instructor, and are for personal use only. The instructor retains copyright to such recordings and all lecture materials provided for the class (electronic and otherwise); these materials must not be shared or reposted on the Internet.
- 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 present for the midterm and final exams. Instructors may grant deferrals for <u>midterm</u> examinations for illness, accident, or family affliction, and students must provide appropriate documentation 48 hours after the midterm exam. The deferred <u>exam must be written within five business days</u> of the original exam. 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). Deferral of a <u>final</u> 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.

- 6. Multiple choice scan sheets for machine scoring (bubble sheets) are considered the authentic exam answer paper and will be retained by the department for 1 year.
- 7. Professors may refuse to review/remark exams not written in indelible ink. In addition, requests for review/remark of a midterm exam must be made within one week of the exam being returned. Students are expected to promptly pick up midterm exams after marking has been completed, either in class or from the instructor.
- 8. Examination papers that have pages removed, or are mutilated will not be marked.
- 9. I reserve the right to use plagiarism detection software or other platforms to assess the integrity of student work."

### Resource Centre for Students with a Disability

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 Resource Centre for Students with a Disability (RCSD) as soon as possible (http://rcsd.uvic.ca/.) in order to assess your specific needs

### Course Experience Survey (CES)

I value your feedback on this course. Towards the end of term, as in all other courses at UVic, you will have the opportunity to complete an anonymous survey regarding your learning experience (CES). 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. The survey is accessed via MyPage and can be done on your laptop, tablet, or mobile device. I will remind you and provide you with more detailed information nearer the time but please be thinking about this important activity during the course.