

## UCSD BIMM 120: Microbiology Lecture

Lecture Schedule **Spring 2021**

Professor: **Dr. Brooke Pickett**

Professor contact: bpickett@ucsd.edu

Office Hours: F 11-12pm via OH zoom link

Semester start: **3/29/21**

Semester end: 6/11/21

Lecture: **MWF 2:00 – 2:50pm via Zoom (synchronous)**

**Course Description:** A discussion of the structure, growth, physiology, molecular genetics, genomics, and ecology of prokaryotic microorganisms, with emphasis on the genetic and metabolic diversity of bacteria and archaea and their interactions with hosts and the environment. Please keep in mind that microbiology is a relatively advanced, fast-paced course, so it is imperative to keep up with the material. **This means students should plan on spending two to three hours of studying for every hour of class.**

**Recommended Textbook:** “Brock Biology of Microorganisms”, Madigan et al., 15<sup>th</sup> edition (the textbook our lecture material is based on) or “Microbiology: An Introduction, Tortora et al, 13<sup>th</sup> edition. These books are useful as a resource to supplement lecture material, but they are not required.

**Prerequisites:** BILD 3 and BIBC 100 or BIBC 102 or CHEM 114A or CHEM 114B and BIMM 100

**Lecture Schedule:** Below is the **tentative** lecture schedule; i.e. lecture schedule may be a little ahead or behind track as the course progresses. Review sessions are scheduled outside of class time via a Doodle poll and are not mandatory.

Week	Day	Date	Topic
1	M	29-Mar	Introduction to Microbiology
	W	31-Mar	Prokaryotic Cell Structure and Function
	F	2-Apr	Microbial Metabolism
2	M	5-Apr	Lecture 3 continued
	W	7-Apr	Molecular Biology and Proteins
	F	9-Apr	Eukaryotic Microbes
3	M	12-Apr	Lecture 6 continued
	W	14-Apr	Antibiotics
	F	16-Apr	Microbial Growth and Control
4	M	19-Apr	Viruses
	W	21-Apr	Lecture 10 continued
	F	23-Apr	<b>Exam I</b>
5	M	26-Apr	Horizontal Gene Transfer
	W	28-Apr	Epidemiology
	F	30-Apr	Bacterial and Viral Diseases
6	M	3-May	Clinical Microbiology, Foodborne, and Waterborne Diseases
	W	5-May	Innate Immunity
	F	7-May	Lecture 16 continued
7	M	10-May	Microbial Ecosystems
	W	12-May	Lecture 18 continued
	F	14-May	Nutrient Cycling
8	M	17-May	Microbial Symbioses with Microbes, Plants, and Animals

	W	19-May	Lecture 21 continued
	F	21-May	<b>Exam II</b>
9	M	24-May	Microbial Symbioses with People
	W	26-May	Microbial Therapies
	F	28-May	Frontiers in Microbiology
10	M	31-May	<b>Vacation</b>
	W	2-June	Frontiers in Microbiology (cont.)
	F	4-June	Review Session
Finals Week	TBD	TBD	<b>Exam III</b>

**Final Exam Week:** June 5-11

### GRADING CRITERIA

The entire course is worth 330 pts: three exams in the lecture section and three study guide assignments in the discussion section.

Category	Points
<b>Lecture</b>	<b>300</b>
Exam I	100
Exam II	100
Exam III	100
<b>Discussion Section</b>	<b>30</b>
Study Guide Assignments (3, 10pts)	30
Extra Credit	10
<b>Total for Course</b>	<b>330</b>

### GRADING SCALE

The grading scale for the course is standard (see below table). The course will not be curved and the final grades will not be rounded. For example, this means a grade of 89.9% will not be rounded up to a 90%.

Letter Grade	Percentage	Grade Points per Unit
A+	96 - 100	4.0
A	94 - 95	4.0
A-	90 - 93	3.7
B+	86 - 89	3.3
B	84 - 85	3.0
B-	80 - 83	2.7
C+	76 - 79	2.3
C	74 - 75	2.0
C-	70 - 73	1.7
D	60 - 69	1.0
F	< 60	0.0

### LECTURES AND SUPPLEMENTAL MATERIAL

Lecture will be presented via Zoom (<https://zoom.us/>). You will receive a zoom meeting link that will serve as our lecture class for the entire semester. The most important aspects of the material are presented in lecture. Lecture attendance is expected, as concepts will be presented in a step-wise fashion designed to help you learn the material. Lecture slides are available for download from CANVAS prior to the lectures. Lecture recordings will also be posted to CANVAS after lecture.

## EXAMS

There will be three exams (see schedule above), none of which are cumulative (yay!). We will have exam reviews before every test, each one will be scheduled via a Doodle poll and will take place outside of lecture hours. I highly suggest either making a study guide or digital flash cards (using the free Anki program – [apps.ankiweb.net](https://apps.ankiweb.net)) after each lecture. This is a fast-paced course so it is imperative to keep up with the material. None of the exam grades will be dropped and make-up exams will only be given with a doctor's note.

## EXTRA CREDIT

Extra credit are points given out for doing something above and beyond what is required. There are ten points of possible extra credit in this course. Asking for extra credit points beyond this or asking for added points to boost your grade is inappropriate and not in line with the ethics of academia; any requests of this nature will be dismissed.

## COVID-SPECIFIC ACCOMODATIONS

In light of the stressful environment in which this class will take place, there are accommodations added to this course: discussion section attendance is not mandatory and 10pts of extra credit are available. Students should not expect or ask for quarantine-specific accommodations in addition to these. This course, despite the added hurtles, must be equivalent in rigor and scope as those given in previous semesters.

## DISCUSSION SECTIONS

Discussion sections are an ideal time to ask your IA questions about course material, practice questions, exam preparation, post-exam questions, etc. In general, your IA will go over the 1) main slides from lecture, 2) the answers to practice questions, and 3) answer any other questions you may have. Practice questions will be available on CANVAS before the discussion section. They consist of questions designed to help you understand the material presented in lecture and are not to be turned in or graded. Discussion section attendance is highly recommended, but not mandatory.

Section times:

Section	Day	Time	IA Name
A01	W	5:00-5:50 pm	Amy
A02	W	6:00-6:50 pm	Jenny
A03	W	7:00-7:50 pm	Lauryn
A04	Th	9:00-9:50 am	Armin
A05	Th	11:00-11:50 am	Claudia
A06	F	12:00-12:50 pm	Claudia

Instructional Assistant (IA) Information:

Name	Email	Office Hours
Claudia Melkonian	<a href="mailto:cmelkoni@ucsd.edu">cmelkoni@ucsd.edu</a>	M 10-11 am
Lauryn Higginson	<a href="mailto:lahiggin@ucsd.edu">lahiggin@ucsd.edu</a>	T 1-2 pm
Jenny Lu	<a href="mailto:jel368@ucsd.edu">jel368@ucsd.edu</a>	Th 5-6 pm
Armin Momen	<a href="mailto:amomen@ucsd.edu">amomen@ucsd.edu</a>	M 1-2 pm

Amy Peng	amp060@ucsd.edu	M 4-5 pm
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## STUDY GUIDE ASSIGNMENTS

Creating study guides out of the lecture slides, is a great way to prepare for the exams. This allows you to study the study guide, rather than going through dozens of lecture slides. During these assignments, you will each add 10 questions OR 10 answers to a shared study guide for your discussion section (this will be done via Googledocs). Make sure to write your name in parentheses next to whatever questions and answers you write so you get credit for your work. To be clear, you could write 6 questions and 4 answers, or 8 questions and 2 answers, or 5 questions and 5 answers, etc. As long as it adds up to 10. We will do this assignment once for each exam (Exam 1, 2, and 3).

## RESOURCES FOR STUDENTS

*If a student is struggling, it is their responsibility to seek out help and let the professor know of their circumstances before assignments/quizzes are to take place. Students cannot ask for accommodations retroactively. A complete list of student resources can be found on the CANVAS homepage.*

*Office for Students with Disabilities (OSD) - <https://osd.ucsd.edu/>*

Assists students with documented disabilities (psychological, psychiatric, learning, attention, chronic health, physical, vision, hearing, brain injury) to provide accommodations in classrooms and labs. OSD is a great resource if you think you may have test anxiety due to an underlying condition that interferes with the ability to learn, focus, or concentrate. In many cases, students are entitled to assistance with test taking, such as extra time to complete a test, testing in a less distracting room or having questions read aloud. Their mission is to offer quality programs and services that empower students with disabilities to access and engage in educational activities at the College. Please notify your instructor immediately if you require special health or disability accommodations.

*Counseling and Psychological Services (CAPS)*

UCSD counseling services are still open during quarantine. This is an amazing resource for coping with anxiety and stress issues. For first-time appointments, you can now go directly to [MyStudentChart.ucsd.edu](https://mystudentchart.ucsd.edu) and book an appointment online. The CAPS website is:

<https://wellness.ucsd.edu/CAPS/services/Pages/Appointments.aspx>.

*Teaching + Learning Commons - <https://commons.ucsd.edu/students/academic%20support.html>*

Made up of six unique, but integrated hubs, The Teaching + Learning Commons provides comprehensive academic support for students. Includes tutoring, writing help, learning strategy workshops, and study groups.

## OTHER TIPS

*College Survival Skills*

- Keep a calendar of all exam/assignment due dates and appointments
- Plan on spending two to three hours of studying for every hour of class
- Be on time to class, ask questions when needed, and participate
- Take notes in class and review them often
- Complete all assignments on time
- Take advantage of services on campus to help you succeed such as tutoring or special classes
- Arrange for needed accommodations early in the term

- Visit the ACCESS office for assistance, questions, counseling, and class selection – they are here to help
- Plan time to eat, sleep and have some fun
- If trouble arises, seek assistance as soon as possible

#### *Coping Skills for Test Anxiety*

- Breathing techniques or holding something small to fidget with (like a hair band)
- Reframing thoughts: believing in yourself and remembering this is just one exam
- Doing the hardest questions (like short answer) first so you can relax a little bit
- Studying as I go, instead of all at once and studying in a place that is relaxing or familiar
- Making a routine - for me that was adding a few questions to my study guide right after each lecture. Routine tends to decrease stress.
- Having breakfast and water (no coffee) right before the test

#### *Self-Advocacy Tips*

- Understand my disability and learn ways to compensate
- Learn how to explain my disability and needs to others
- Learn how to ask for appropriate accommodations
- Learn that it is OK to use appropriate accommodations
- Identify my strengths and weaknesses
- Learn that it is OK to ask for help
- Express my needs clearly to all college employees, especially the ACCESS staff and my instructors, early in the term
- Take responsibility and develop independence in coordinating your services
- Meet with instructors when needed

### **CHEATING**

Honesty is primarily the responsibility of each student. The College considers cheating to be a voluntary act for which there may be a reason, but for which there is no acceptable excuse. It is important to understand that collaborative learning is considered cheating unless specifically allowed for by the professor. The term cheating includes but is not limited to plagiarism, receiving or knowingly supplying unauthorized information, using unauthorized material or sources, changing an answer after work has been graded and presenting it as improperly graded, illegally accessing confidential information through a computer, taking an examination for another student or having another student take an examination for you, and forging or altering grade documents. In any act of academic dishonesty, the student will automatically receive a zero on that test or assignment and the incident will be reported to the Dean of Students Services, Director of Student Life, Director of Admissions and Records, and the Dean of Natural Sciences. In the case of more egregious offenses, a grade of "F" in the course may be assigned (regardless of the student's average) as per College and department policies. Please don't risk your GPA and/or future career by cheating.

\*\*\* This syllabus is subject to change. Any changes will be announced in class and on CANVAS. Students will be responsible for all changes.