**UCSD BIMM 121: Microbiology Lab**
Lab Schedule **Spring** 2023

Quarter start: **4/3/22**
Quarter end: 6/9/22

Professor: **Dr. Brooke Pickett**
Professor contact: bpickett@ucsd.edu
Office Hour: Th, 12:10 – 1:10pm, H&SS 1145B

Overview: Welcome! In this class, we'll be using techniques in microbial physiology, microbial genomics, microbial evolution, and microbial ecology to explore the role of microbes in health, industry, and the environment. Inquiry-based experiments will cover the fundamentals of both working with live microscopic organisms at the bench and bioinformatically analyzing their genomes at the computer. I know transitioning to fully in-person classes can be stressful, so let's keep that in mind and make sure to treat each other with patience and understanding. **We're in this together, so if you have any issues or concerns, please let me know right away.**

## COURSE MEETING TIMES

**This course is fully in-person**. Please look closely at the following course meeting times and the more detailed lab schedule in this syllabus.

*Lab Lecture:*

| Section | Day | Time | Room |
|---|---|---|---|
| All | WF | 8:30am – 9:50am | Tata 2501 |

*Lab Meeting:*

| Section | Day | Time | Room | IA | IA Email |
|---|---|---|---|---|---|
| A01 | WF | 10am – 12:50pm | Tata 2101 | Ananya Rajagopal | anrajago@ucsd.edu |
| A02 | WF | 10am – 12:50pm | Tata 2102 | Joseph Oh | juo014@ucsd.edu |

## COURSE DESCRIPTION

Required Materials: BIMM121 physical lab manual from the bookstore. You'll also need PPE (full-length lab coat, safety glasses), a lab notebook (any kind), and CANVAS access. A lab coat and safety glasses can be purchased from the student bookstore, Amazon, or Target. If you do not have access to a computer, please see "student resources" on our CANVAS page to request a loaner.

Course Structure: Each lab lecture covers the important concepts and background information needed to accomplish that day's lab tasks. During lab, you will work in small groups and then answer questions regarding each lab's accomplishments. **Lecture and lab attendance are required** and will contribute to your grade (you must attend the lab section you are officially enrolled in). There will be lab quizzes, weekly discussion posts, notebook assignments, three lab reports, and lecture participation points.

## DETAILED COURSE SCHEDULE

Below is the **tentative** lab schedule; i.e. lab schedule may be a little ahead or behind track as the course progresses. The course schedule is composed of several topics: lab basics, biofilm experiment, yogurt and CRISPR, DNA library prep, and genomic data analysis. We will not be completing the lab modules in the order

that is presented in the lab manual (ex. A1, A2, A3, etc.), but rather the order presented in the below schedule.

| Week | Dates | Wednesday | Friday |
|---|---|---|---|
| **1** | April 5, 7 | **Lab Lecture:** intro to microbes, culturing, biofilms, inoculation, isolation, aseptic technique, micropipettes<br><br>**Lab:** BASICS 1 (micropipetting), A1 (surface swabbing and plating), A2 (inoculating a test tube with sterile technique), safety | **Lab Lecture:** biofilm evolution, Rainey and Travisano, model organism, T-streak plate, examining cultures, colony morphology, microscope<br><br>**Lab:** A3 (streak plate of A2), examine A1 and A2 cultures, B1 (set up microcosms), BASICS 2 (too much to do here) |
| **2** | April 12, 14 | **Lab Lecture:** serial dilution 1, wet mounts, microscope cont.<br><br>**Lab:** observe T-streak, B2 (observe vials), B3 (streak out vials), B4 (wet mounts of microcosms), B5 (dilute and plate) | **Lab Lecture:** simple stain, heat fixation, serial dilution 2<br><br>**Lab:** B3 (examine location streaks), B6 (count dilution plates), C1 (inoculate cultures), B7 (heat fix, stain from colonies) |
| **3** | April 19, 21 | **Lab Lecture:** DNA extraction, microbial genome, species definition, cryoprotection, plasmids, pixel to um ration<br><br>**Lab:** C3 (extract DNA), C2 (freezer stock), BASICS 3 (calibrating with stage micrometer) | **Lab Lecture:** DNA quantification, protists<br><br>**Lab:** C4 (nanodrop DNA), C5 (qubit DNA), tardigrades, algae survey mix, *Bacillus subtilis* |
| **4** | April 26, 28 | **Lab Lecture:** Illumina sequencing, library prep<br><br>**Lab:** C6 (library prep part 1) | **Lab lecture:** tape station, fermentation<br><br>**Lab:** C7 (library prep part 2), C8 (qubit DNA, aliqot for station/bioanalyzer) |
| **5** | May 3, 5 | **Lab Lecture:** making yogurt, Unix, calculate molar concentrations<br><br>**Lab:** D1 (make yogurt), C10 (Unix tutorial), calculate molar concentration | **Lab Lecture:** cell appearance and arrangement, gram staining, MRS agar, history of CRISPR discovery<br><br>**Lab:** D2 (compare yogurt: obs, wet-mounts, heat-fix grams), F1 (streak yogurt – heirloom on MRS, commercial on *S. therm* agar), pool SBW25 |
| **6** | May 10, 12 | **Lab Lecture:** what we know about CRISPRs of LAB, PCR<br><br>**Lab:** G1 (PCR CRISPR loci), EX (QIIME start) | **Lab Lecture:** physiology vs 16S identification, QIIME basics (biome matrix), gel electrophoresis<br><br>**Lab:** G2 (gel, back up PCR), EX (QIIME cont.) |
| **7** | May 17, 19 | **Lab Lecture:** more QIIME (diversity metrics) | **Lab Lecture:** using CRISPR-Cas finder and BLAST, gut microbiome, HGT |

| | | | |
|---|---|---|---|
| | | **Lab:** G3 (submit, back up gel), EX (QIIME cont.) | **Lab:** G4 (find spacers, BLAST), G5 (determine strain ID of *S. thermophilus*), G6 (search for evidence of HGT) |
| **8** | May 24, 26 | **Lab Lecture:** photosynthetic microbes in biosphere, light scattering<br><br>**Lab:** wrap up CRISPR if needed, H1 (set up growth tests) | **Lab Lecture**: (*lecture not in-person, pre-recorded*) ways to count cells, work on lab Report 2<br><br>**Lab:** H2 (measure growth) |
| **9** | May 31, June 2 | **Lab Lecture:** fastq file review, Illumina quality scores, breseq, resequencing, common SBW25 mutations (WspF, FuzY), interpreting mutations<br><br>**Lab:** H3 (measure), C11 (examine fastq, locate files, C12 (breseq), C13 (research mutations) | **Lab Lecture:** interpreting green growth experiments<br><br>**Lab:** H4 (measure), C12 (breseq), C13 (research mutations) |
| **10** | June 7, 9 | **Lab Lecture:** work on lab report 2<br><br>**Lab:** H5 (measure), green growth presentation prep | **Lab Lecture:** write "lab report 3"<br><br>**Lab:** green growth presentations |

## GRADING CRITERIA AND SCALE

The grading scale for the course is standard (see second table below). The course will not be curved and the final grades will not be rounded up to a 90%.

| **Assessment** | **Points** |
|---|---|
| Quizzes (10, 15pts) | 150 |
| Lab Reports (3, 40pts) | 120 |
| Lab Notebooks (~19, 5pts) | 95 |
| Discussion (9, 5pts) | 45 |
| Participation (19, 2pts) | 38 |
| Group Professionalism | 5 |
| Extra Credit | 3 |
| **Total for Course** | **453** |

| **Letter** | **Percent** | **GPA** |
|---|---|---|
| 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 |

**QUIZZES**
Quizzes will be given once a week and cover material from the week's lectures and labs. Quizzes are available on CANVAS from Friday 5pm – Monday 5pm and can be taken any time within that window. Quizzes are open-note, contain 15 questions, and must be completed within 30min of opening. At the end of the quarter, your lowest quiz grade will be dropped. There are no make-up quizzes (unless you have a doctor's note).

**LAB REPORTS**
Every student is expected to have a notebook (can be any kind of notebook) to record lab activities and background information during lab. This notebook will be essential in writing your lab reports throughout the semester. Guidelines regarding how to write each lab report are posted on CANVAS under the module "Lab Reports". Lab report rubrics are built directly into the lab report assignment and can be viewed by clicking on the assignment under the "assignments" tab in CANVAS. There will be three lab reports, none of the lab report grades will be dropped. The third lab report will be a group report – if a group member does not complete their allotted work as per the confidential group evaluation sheets, that group member will receive a point penalty of 30% on their report 3 grade.

**LAB NOTEBOOK**
Students will complete a Googledoc lab notebook entry for every lab session (so 2 per week). Each assignment will be worth 5pts. Students must be present in lab in order to receive any notebook assignment points for that day. The notebook assignment will be completed during lab or by the end of the lab day (you should be able to complete them by the end of lab, but we wanted to give you some wiggle room). Notebooks will be checked once a week by the IA, at a time of their choosing, which means notebooks must be kept up to date.

Do not follow the notebook directions listed in the lab manual. Instead, notebooks should have a table of contents and each lab entry should have a title/date (1pt), objective (1pt), procedure (1pt), results/data analysis/questions (1pt), and interpretation/conclusion (1pt). The objective should be 2-3 sentences, in your own words, describing the purpose of *all* tasks performed that day. The procedure should only include any procedures you performed that differed from those in the lab manual (also state if there were no differences). The results/data analysis/questions section includes your live observations, any calculations, and the answers to any questions posed in the lab manual (label these answers i.e. "Q-A1", so your IA can easily find them). The interpretation/conclusion includes 1-2 sentences interpreting your observations (i.e. what do the results mean?).

**DISCUSSION**
The CANVAS discussion forum is a key learning tool for this course. It is driven by your curiosity and will help you make connections between what we learn in class and the real world. Every week you are required to make two posts, at least one of which must be an answer and the other can be a question or an answer (so not two questions). Your questions should be insightful and curious in order to earn points, asking a simple "googleable" question like "what is agar?" or questions regarding class assignments will not earn points. Your questions should relate (loose connections are fine) to something we covered in the course that week. In addition, answers to other student's questions should not be guesses, but backed up by relevant literature (only journal articles, books) with a link to the reference. Discussions are graded this way: 2.5 pts for post one and 2.5 points for post two, 1pt is deducted if a peer-reviewed reference is not provided for answers. Posts must be made by 11:59pm on Fridays. At the end of the quarter, your lowest discussion grade will be dropped.

**PARTICIPATION**
At some point during every lecture, a simple question will be asked based on the material we just went over. Students will scan a QR code and fill out their name and answer on a Google form. The participation answers

are not graded for accuracy, just completion. Students must be present in lecture the entire lecture to receive participation points. Each lecture is worth 2pts for a total of 38pts by the end of the quarter. The lowest participation grade will be dropped at the end of the quarter (to account for any Google form issues). See attendance policy below for further information.

**GROUP PROFESSIONALISM**

This portion of the course grade is intended to engage students in considering the impact of their actions on their own learning and the learning of others in the course. We want to prepare you for a career in science, which means it's important to understand not only the material, but how to interact with your fellow researchers. Unprofessional interactions consume time yet have no meaningful benefits to you, your fellow students, and/or the instructional team. Analogously in the workplace, being unprofessional to your colleagues or supervisors will only discount you. When you are discounted, you may not be invited for new opportunities that you may or may not be aware of. Professionalism can be demonstrated through community efforts: during the quarter, based on observations by the teaching team, your lab group will be graded on their professionalism. Group professionalism credit may be deducted in steps of 1pt if the below examples of professional interactions are not followed. Note that chronic non-participation or professional violations by individual lab members in lab will result in loss of all professionalism points for that individual, not the entire lab group.

Examples of professional interactions:

1. Contributing equitably to teamwork in class, in section, or on team assignments
2. Contributing equitably to lab procedures performed during lab
3. Being on time to lab and filling out the absence form in advance if a class will be missed
4. Cleaning up the lab bench and ensuring all drawers and cabinet doors are completely closed at the end of class
5. Cleaning microscopes thoroughly, allowing them to be checked by IA/professor, and covering the microscopes
6. Turning off gas valves at the end of class
7. Carrying out procedures safely and paying attention to waste disposal in the laboratory
8. Behaving in a respectful and fair manner to all other students, IAs, and professors
9. Turning assignments in on time and communicating effectively with the IA/professor if a goal will not be met

**EXTRA CREDIT**

Extra credit are points given out for doing something above and beyond what is required. There are three points of 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.

**CHECKLIST**

Below is a helpful checklist that students can follow each week to make sure they are up to date on all tasks:

- ☐ Attend lecture and lab each week
- ☐ Answer notebook questions during lab
- ☐ Make two discussion posts each week by Friday at midnight
- ☐ Answer quiz questions by every Monday at 5pm
- ☐ Check if any lab reports are due

# COURSE POLICIES

Below you will find the class policies regarding attendance, late assignments, extra credit, accommodations, and cheating.

**ATTENDANCE**

**Lecture and lab attendance is required** and is essential to understanding the material and performing well in the course. If lecture is missed, students can watch the lecture podcast (via the "Media Gallery" tab in CANVAS). If you will be absent from either lecture or lab, **please fill out the absence form on CANVAS. Any emails regarding absences, will not be addressed, all absences must be entered into the absence form.** Please fill out the form once for each day you will be absent. This form must be filled out **before the absence will occur** (except in emergencies). Your response will be sent directly to your professor and IAs. If the absence is excused, participation points will be awarded, if not, participation points will not be awarded. Please see the detailed guidelines below regarding unexcused and excused absences in lecture and lab:

*Lecture attendance*: The following guidelines apply to lecture absences. Students who miss lecture can watch the lecture recording via the Media Gallery in CANVAS.

> *Unexcused absences:* will result in no participation points for that lecture. Unexcused absences include: 1) missing lecture without first filling out the absence form (except in medical emergencies), 2) arriving to lecture 15min late or more, 3) leaving lecture with 15min or more remaining, or 4) absences due to scheduling conflicts (other coursework, vacations, planned meetings, etc.).
>
> *Excused absences:* will result in full participation points for that lecture. Excused absences include feeling sick, being COVID-positive, having COVID symptoms, unexpected occurrences, or events out of the student's control. Students must fill out the absence form **ahead of time** (this excludes emergencies) **in order for the absence to be excused**.

*Lab attendance:* Lab work will include wet lab procedures and therefore cannot be completed remotely. Students who are feeling sick, or who are COVID-positive, can complete a make-up assignment after notifying their professor/IA that they will not be attending lab. The make-up assignment must be completed on time, or the lab will be counted as a missed lab. The following guidelines apply to lab absences:

> *Unexcused lab absences:* will result in no lab notebook points for that day. Unexcused absences include: 1) not completing a make-up assignment on time if a lab is not attended, 2) missing lab without first filling out the absence form, 3) arriving to lab 15min late or more, 4) leaving lab with 15min or more remaining, 5) **not participating during lab**, 6) lab absences due to scheduling conflicts (other coursework, vacations, planned meetings, etc.), or 7) attending a lab section the student is not registered for. If a student is marked as absent for **2 lab sessions and/or misses four lab quizzes, they must drop the course as too much information has been missed**. If a student refuses to drop the course, they will receive an automatic grade of "F" in the course after the drop deadline has passed.
>
> *Excused lab absences:* will result in the student being able to make up lab notebook points for that day via the makeup assignment and checking in with their group to get the information they'll need for the next lab. Excused absences include feeling sick, being COVID-positive, having COVID symptoms, unexpected occurrences, or events out of the student's control. Students must let Dr. Pickett and their IA know of any excused absences **ahead of time** via the absence form (this excludes medical emergencies).

*Attendance and COVID:* **DO NOT** attend lecture/lab if you are feeling sick, have been in contact with a COVID-positive person, or are COVID-positive – please protect your fellow students, IAs, and professors. As stated above, lecture can be completed remotely, and lab can be substituted with a make-up assignment without any penalties.

*Add/drop deadlines:* Deadlines are different for lab courses than lecture courses. Students who drop a biology lab class after the end of the **second class meeting** will be assigned a "W" – so please make sure to drop the class **by the end of the first day** if you are planning to drop. Additional details: http://biology.ucsd.edu/go/ug-labs.

**LATE ASSIGNMENTS**

Late assignments/quizzes/reports are **not accepted** unless there is a doctor's note, a prior request for accommodations, or existing accommodations. 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 – this includes asking for an extension for work that has already been due. It is the responsibility of the student to turn in assignments on time, to manage their time accordingly, and to communicate with the professor in a timely manner if goals will not be met. Time-management and effective communication are integral skills in any professional environment.

**GROUP WORK ISSUES**

A major goal of the course is to learn to collaborate with others. Unfortunately, despite best efforts and intentions, groups do not always function optimally. Dealing with these challenges is a natural part of the learning experience. Everyone is expected to **contribute fully and equitably to group work** as part of the university learning community. If disputes occur over the relative contribution of individual members of the group, **please contact Dr. Pickett immediately** so the issue can be resolved.

**SAFETY TRAINING**

Enrolled and waitlisted students must successfully complete the Biology Lab Safety Training and Assessment before the first lab session: https://biolabclass-safetyquiz.ucsd.edu/introduction. Please note that courses offered by other departments (Chemistry, for example) may have additional safety training requirements. Students are not allowed into the lab for the second lab session unless they have successfully passed the safety assessment. Instructors need to enforce this policy without exception. Please make sure to always follow the waste disposal guidelines provided during lab and in the lab manual.

**LEARNING OUTCOMES (LOs)**

1. Appreciate the structure, physiology, and diversity of microorganisms.
2. Appreciate interactions of microbes with other organisms.
3. Appreciate interactions of microbes with their environment.
4. Detect and interpret evidence of microbial evolution.
5. Isolate, identify, grow, and quantitate microorganisms.
6. Execute laboratory tasks using aseptic technique.
7. Plan an experiment from a general outline of research objectives.
8. Analyze and interpret experimental data to draw accurate and statistically sound conclusions.
9. Communicate scientific research - its justification, methods, and findings - effectively.
10. Recognize unknowns in microbiology
11. Value the relevance of microbiology today

**ACADEMIC INTEGRITY**

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.

If any act of academic dishonesty is observed, **the professor is required to report it.** The student will **automatically receive a zero** on that test or assignment (the grade received as a result of an academic integrity violation stays calculated into the student's GPA even if the student retakes the class). There will also be an AI Administrative Fee of $50 (posted to the student account), mandatory AI Training, at least one Disciplinary Action, and possibly other actions per the professional judgement of the Appropriate Administrative Authority (AAA). Discipline may include probation, suspension (from a Quarter to Two Years), or dismissal. Please do not risk your GPA and/or future career by cheating.

## COVID-RELATED FAQs

1. **Why is there no remote option for this course?**
   Students who have a documented need for accommodation either because of travel restrictions or because of health restrictions have already been identified and this data has been shared with the appropriate academic programs. To the extent that we have capacity, programs and faculty have tried to accommodate students needing remote instruction. ***To operate programs in both in-person and remote modalities increases demands on university infrastructure, and our ability to do so is limited.*** While individual students may express a preference for additional remote offerings, ***we do not have the instructional or operational capacity to simultaneously deliver all or most courses in both in-person and remote formats.*** Students who have an accommodation need must work with the Office for Students with Disabilities (OSD) to have their accommodation reviewed and documented.
2. **What accommodations are there for students who are sick/unable to join an in-person class?**
   As stated under the "Attendance Policy" students can choose to watch the lab lecture audio recording rather than attend the lecture in-person. If a student misses lab, there will be a make-up assignment. Please see the "Attendance Policy" portion of the syllabus.
3. **What happens if another student in the class tests positive for COVID?**
   When a student tests positive for COVID, the contact tracing team immediately takes over. The student will need to quarantine for up to 10 days. The contact tracing team will determine if others were exposed through contact with the infected individual, and if so, they will be contacted and advised to be tested. If all protocols are followed (including vaccine mandates and masking), being in a room with an infected individual does not automatically qualify as exposure. To date, no exposure events have been traced back to in-class activities at UCSD.
4. **What should I do if I feel sick?**
   Complete the symptom screener and if needed, get tested for COVID. Do not come to campus unless given the all-clear.
5. **What happens if the professor/IA tests positive for COVID?**

The professor/IA will quarantine for 10 days and the contact tracing team will determine if others were exposed. If the professor were to quarantine, instruction would be remote for the quarantine period and a substitute professor may be provided.

6. **What rules do the professor/IA/students have to follow in the classroom?**
   Wearing two cloth masks or one KN95/N95 mask is required at all times, regardless of vaccination status. No eating or drinking is allowed in class, regardless of whether the class is indoor or outdoor. The only exception from this rule is short hydration breaks for instructors while lecturing. Social distancing restrictions have been lifted, but physical contact should be limited where possible. The full masking policy is posted on the UCSD website: https://adminrecords.ucsd.edu/PPM/docs/516-30.html?_ga=2.168746281.923449004.1631056456-1539867882.1625773689.
7. **Can we eat/drink in the classrooms?**
   No, but instructors may take hydration breaks while lecturing. Students should step outside to hydrate, if needed, during class and break times.
8. **How have classrooms been prepared for a safe return, and what safeguards are in place?**
   Facilities Management has provided extensive information on their activities preparing classrooms and other facilities for individuals to return to campus. More information about the specifics related to air filtration in classrooms and campus buildings, as well as cleaning protocols and more can be found on their COVID-19 information page (Facilities Management Response to the COVID-19 Pandemic (ucsd.edu)).

## 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.

1. ***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.
2. ***The Writing and Critical Expression Hub*** - (http://commons.ucsd.edu/students/writing/index.html) provides support for undergraduates working on course papers, i.e. laboratory reports and the research proposal, as well as other independent writing projects. Writing mentors can help at any stage of the writing process, from brainstorming to final polishing. The Writing and Critical Expression Hub offers: one-onone writing tutoring by appointment; supportive and in-depth conversations about writing, the writing process, and writing skills; help with every stage in the writing process, walk-in tutoring; and workshops on writing.
3. ***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.

4. ***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 and book an appointment online. The CAPS website is: https://wellness.ucsd.edu/CAPS/services/Pages/Appointments.aspx.
5. ***The Office for the Prevention of Harassment & Discrimination (OPHD)*** - Provides assistance to students, faculty, and staff regarding reports of bias, harassment, and discrimination. OPHD is the UC San Diego Title IX office. Title IX of the Education Amendments of 1972 is the federal law that prohibits sex discrimination in educational institutions that are recipients of federal funds. Students have the right to an educational environment that is free from harassment and discrimination. Students have options for reporting incidents of sexual violence and sexual harassment. Sexual violence includes sexual assault, dating violence, domestic violence, and stalking. Information about reporting options may be obtained at OPHD at 858-534-8298, ophd@ucsd.edu, or http://ophd.ucsd.edu. Students may receive confidential assistance at CARE at the Sexual Assault Resource Center at 858-534-5793, sarc@ucsd.edu, or http://care.ucsd.edu , or Counseling and Psychological Services (CAPS) at 858-534-3755 or http://caps.ucsd.edu. Students may feel more comfortable discussing their particular concern with a trusted employee. This may be a student affairs staff member, a faculty member, a department chair, or other university official. These individuals have an obligation to report incidents of sexual violence and sexual harassment to OPHD. This does not necessarily mean that a formal complaint will be filed. If you find yourself in an uncomfortable situation, ask for help. The university is committed to upholding policies regarding nondiscrimination, sexual violence, and sexual harassment.
6. ***If you want more micro***, there's a microbiology lecture class (BIMM120) on campus. There's also all kinds of microbial media (pun intended :)), here's a few I like. Books about surgery and microbes: The Butchering Art by Lindsey Fitzharris, Dr. Mutter's Marvels by Cristin O'Keefe Aptowicz. Podcast about microbial pathogens: This Podcast Will Kill You on Spotify. Have fun learning about microbes!

## OTHER TIPS

*Office hours*

Office hours are a great resource if you have any questions about the course content. You can also consider office hours to be more like study sessions or free-formed fireside chats, where we can talk about anything related to your academic and general experiences on campus. Stop by for just a few minutes or stay for the entire duration – your choice! Please feel free to email and set up a separate appointment with me if necessary. Office hours with instructional assistants will be posted on CANVAS.

*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
- 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
- Attend office hours if you have questions or concerns
- 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 you go, instead of all at once
- Studying in a place that is relaxing or familiar
- Making a routine – maybe adding a few questions to a study guide right after each lecture. Routine tends to decrease stress.
- Having breakfast and water (no coffee) right before a 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

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