UC San Diego

## Welcome to BIMM 101 – Recombinant DNA Techniques Lab!

### Course Information

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| **Course Description** | In BIMM101 we aim to function as an inclusive learning community to develop an understanding of how to conduct experiments in a molecular biology setting. Specifically, we will spend most of our time using CRISPR editing to address research questions, engage in experimental design, and critical analysis of data, literature, and our own writing. |
| **Credits** | 4 credits.<br>Class + lab + course work will take approximately 15-16 hours per week (some weeks will vary because of shorter labs, or increased studying time).<br>*Lab courses are intense! Use time wisely – block off time to be prepared for class and lab. If lab activities finish early, use that blocked-off time to prep for the next lab.* |
| **Class times** | Class: W/F, 10:30am-11:50pm, TATA Hall Learning Studio (2501)<br>A small number of classes will be recorded lectures and announced on Canvas (e.g., when I travel to a conference).<br>Lab: W/F 12:30-3:50pm, York Hall 4318 and 4332 (check your registered section) |
| **Materials** | • Lab Manual – this is provided to all students during week 1. You **do not** need to buy one from the bookstore.<br>• Lab Notebook – we will assign you a Google Doc to use (if you prefer a paper book, please talk to your instructor).<br>• Tablet or laptop to use in lab **if** you have one. We use the computer in every lab to enter notes in our digital lab notebooks. **If you do not have a laptop, that's OK!** We have loaner laptops for use during lab.<br>• PPE: Knee-length laboratory coat (available at bookstore) and UV-blocking safety glasses or goggles (available at bookstore) *highly recommend glasses instead of goggles for comfort*<br>• All labs require proper lab attire in addition to PPE: long pants or skirts and closed-toe/heel shoes are required in lab.<br>• iClicker for class participation (we can come up with an alternative if needed)<br>• Fine-tipped sharpie pen (dark color) for labelling tubes in the lab<br>• Masking in class and lab is your choice. Students have access to free KN95 masks, check out info here.<br>Please see general lab policies here: https://biology.ucsd.edu/education/undergrad/covid-19.html#Biology-Lab-Policies-and-Fees |
| **Instructor** | Dr. Lisa McDonnell, lmcdonnell@ucsd.edu<br>https://biology.ucsd.edu/research/faculty/lmcdonnell.html |

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| | I will only send communication via my UCSD email address or Canvas. I do my best to reply within 24 hours Mon-Fri.<br><br>Office hours. See Canvas for details. |
| **Instructional Assistants (IAs)** | Michelle Liu, m2liu@ucsd.edu<br>Ayuna Jombik, ajombik@ucsd.edu |

## BROAD LEARNING GOALS

- Design experiments to address specific research questions, including choosing appropriate controls and explaining the purpose of controls.
- Apply knowledge of molecular biology concepts and lab techniques to plan experiments, explain and troubleshoot results (troubleshoot refers to hypothesizing reasons for unexpected results, and proposing reasonable follow-up work to explore hypotheses).
- Conduct experiments using various recombinant DNA/molecular biology techniques.
- Draw conclusions based on evidence and reasoning.
- Perform basic lab math skills, statistical analysis, and graphing.
- Use basic bioinformatics databases and applications.
- Find, read, and evaluate primary literature.
- Critically evaluate scientific writing (your own, and that of peers).
- Connect small experimental steps to larger experimental goals.
- Keep an organized and detailed lab notebook that is helpful for tracking progress, detailing results, and troubleshooting.
- Be reflective about progress in the course: monitor if you are achieving the experimental goals, and any personal learning goals that you set for yourself.

*Lab and class-specific objectives will be provided in each class.*

## Teaching Philosophy

My philosophy is rooted in research on how people learn. This course is designed to encourage discussion, problems solving, collaboration, frequent feedback, and the development of self-regulated learning and metacognitive skills (planning, frequent practice, reflection on performance). I strive to create an environment for everyone to learn together and construct a shared understanding of the material. My goal is to promote critical thinking such that you can apply your knowledge outside of class and can share it with others. Interaction and communication is very important and helpful when learning! I encourage you to take advantage of all the course components, and please attend class, office hours and discussion sections to engage with me, the IAs, and one another!

## Course Schedule & Format

Course schedule (also please check Canvas on a regular basis)

This is an in-person course. During lecture we will review the work we are doing in the lab. For this reason, it is highly recommended that you attend class, and are prepared by having read the relevant lab manual sections for the day prior to coming to class. Previous students that attend class and do the pre-class work are more likely to complete labs on time and develop greater mastery of the material.

This course is designed to be an environment for everyone to learn and construct a shared understanding of the material. Active participation by asking and answering questions and participating in discussions (e.g., during office hours, class, lab), is encouraged. There will be opportunities in each class to think individually and engage in discussions with your peers and me. Being able to communicate understanding *and* confusion is critical to success in any discipline! To encourage collaboration, grades are not assigned on a curve. We will focus on developing an understanding of fundamental concepts as they apply to different examples. Therefore, tests and assignments are *not* memorization-based. Instead, they will include questions that are based on solving problems in new contexts, analyzing and interpreting data to draw conclusions, constructing and critiquing claims. Quizzes are open-note/book.

**Laboratory Attendance**

Attendance in laboratory is required. Attending the first lab is required to maintain your seat in the course. Additional policies are available online (https://biology.ucsd.edu/education/undergrad/course/ug-labs/index.html)
Although we do not want you to attend if you are ill, and understand that unexpected emergencies happen, it is important to recognize that participation in the lab is very important for learning and success in the course. Only the instructor can approve an absence. Please get in touch with your instructor as soon as possible if you are unable to attend lab because of illness or an emergency (at that time the instructor will determine documentation is required). In excused cases, please see below. An unapproved absence will result in a 2% drop in course grade, and two unapproved absences will result in a failing course grade.

***Make-up for missed in-person labs because of an excused absence:***

Please note that a make-up as a result of absence is not meant to be a punishment - we are making sure that everyone has the same amount of engagement and learning in the course, even if they can't make it into the lab itself for the hands-on activities.
Just complete the following steps:

1. Let Dr. McDonnell and your IA know that you can't come to campus today and why.
2. Get in touch with your group mates to get any information you missed that you will need to complete your lab notebook entry. The easiest way to do this is to create a zoom with your group, during the actual lab session if you are able. We have computers available, and we usually spend the first and last portion of class discussing the pre-lab or interpreting results.
3. Make sure your regular notebook entry for the lab is complete by the due date (extensions may be granted by the instructor depending on the circumstance).
4. Add a section to your lab notebook entry for that day, called 'Attendance Make-up.' In this section, you should include the following. Make sure this is complete before the start of the next lab.
    a. In ~200 words (about 6-7 sentences), explain what we did in lab today and why we did it, as if you were explaining it to a friend or relative who didn't study biology (avoid scientific jargon and make it accessible). ***This is not a repeat of the goals and purpose we typically ask for!***
    b. Find one scientific journal article (hint: use google scholar) that relates to what we did in lab today, or uses the technique we used in lab, and write a brief paragraph about it, again as if you were explaining it to a friend or relative who didn't study biology. Include the full article citation. Choose one figure from the paper and put it in your entry. Be

prepared to have a 5 minute conversation with me the next time you come to lab about what the paper was about and what can be claimed based on the results in the figure.

Your entire attendance make-up section should not take up more than a page.

**Recommended Weekly Workflow ~15-16 hours per week:**

1. **Pre-class/lab preparation ~2 hours per week (~1 hour per lab)**
   Check the course schedule and weekly modules on Canvas. Read the relevant background and protocols in the lab manual and consult the Lab Tasks posted on Canvas. Complete the before lab work (What is Happening Today Assignments on GradeScope). Take notes in your lab notebook about what you will be doing that day, as well as any questions you have. I also recommend you review the posted class slides for the upcoming week. It is important to engage in pre-class and lab preparation so that you get the most out of class discussions and can get your work done in lab efficiently.

2. **Attend class ~ 3 hours per week**
   During class we will review data collected in prior labs and discuss what is coming up in the lab that day. We will engage in discussion, answering questions, problem solving, troubleshooting and discussing primary literature.

3. **Lab ~ 8 hours per week (2 x 3-hour 50 minute sessions scheduled).**
   During lab you will follow the necessary protocols (Lab Manual) as outlined in the Lab, take notes that are needed in your lab notebook, and ideally complete the Lab Summary Page (and upload to GradeScope). The goal is to finish your lab notebook entry during lab time. You can also use lab time to ask questions and get feedback on your work! Use the time in lab effectively – this will help you to stay on top of work and reduce outside of lab work.

4. **Weekly Recap Practice Questions ~ 1 hour**
   Most weeks I will post some recap questions about the material covered that same week. These are optional for practice. To review your thinking and answers please discuss with me or your IA in lab or office hours!

5. **Additional study/work time – variable (e.g., ~1-2 hours per week)**

**This lab class is based on application of knowledge and problem solving. This requires time to think, practice, and seek help! Do not rely on cramming. Spaced practice and using time in lab to complete work and get feedback is recommended.**

## Overall Course Expectations

| What you can do to support your success in the course: | What I will do to support your success in the course: |
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| Read the syllabus and stay current with course information | Be prepared and bring my enthusiasm for teaching to each session |
| Keep up with class material, practice questions, homework | Respond to emails within one working day*, answer questions during office hours and provide timely feedback on assignments / submissions. |
| Contribute to the learning environment with fairness, cooperation, and professionalism | Establish a learning environment with fairness, cooperation and professionalism, and will take action if these principles are violated. |
| Treat your classmates, instructional assistants and myself honestly and ethically | Treat you honestly and ethically, and will address any concerns you might have |
| Commit to excel with integrity[1]. Have the courage to act in ways that are honest, fair, responsible, respectful & trustworthy. | Uphold integrity standards and create an atmosphere that fosters active learning, creativity, critical thinking, and honest collaboration. |
| Manage your time, so you can stay on track with the course and complete tasks on time | Only assign work that is vital to the course, and will work to meet the standard credit hour allotment for the course. |
| Communicate with me if you determine that a deadline cannot be met due to extenuating circumstances | Consider requests for adjustments and will make reasonable exceptions available to all students when approved |

1. Please read UC San Diego's Policy on Integrity of Scholarship and take the integrity pledge!
* I am happy to answer questions that are not already addressed in class, on Canvas, or in the syllabus. Please check these resources first.

## Assignments and Grading

**Bolding** indicates flexibility to accommodate for illness/emergencies (elaborated in section below)
Please consult course schedule for due dates.

| Assignment | Points | Explanation |
|---|---|---|
| Syllabus Quiz | 1 | Review of the syllabus and course components is an important step in understanding the course organization. You will have **two attempts** at this quiz, the highest score accepted. |
| Molecular Biology Review | 3 | This is a set of questions meant to review some pre-requisite genetics and molecular biology concepts, as well as some questions on experimental design and drawing conclusions. This assignment will be scored 1.5 points for on-time completion, and 1.5 points for correctness. Instructions to submit the assignment will be posted on Canvas. |
| Pre-lab Questions | 6 | Before almost every lab you will be asked to answer a few questions about what is happening in lab the day (purpose, what you expect, things you are unsure about, see the lab notebook template). The purpose of this is to encourage being prepared for lab, and flag anything you are feeling confused about. Please see course schedule/Canvas for due dates. They will be scored for completion and correctness. You are allowed to miss two of these without penalty. |
| Lab Notebook Entries | 30 | For almost every lab you will be taking notes in your Lab Notebook (assigned Google Doc) Taking notes is helpful for pre-lab preparation, and making sense of the results we get. I encourage you to try and complete these DURING LAB TIME.<br>Entries will be checked on a regular basis. The first will be for feedback only. An additional eight will be scored. The *two* lowest scores will be dropped. The remaining scores will be averaged, and the average used to determine the points out of 30 (e.g., if your average is 85%, you will receive 22.95 points). You are welcome and encouraged to ask for feedback about your work and summary pages during lab time or office hours! **If you find yourself unable to complete an entry because of illness or emergency, that will count as one of your lowest dropped scores.** |
| Quizzes #1-3 | 20 | Quizzes #1-3 are during lab time (see schedule) and will largely be about your understanding of the experiments, experimental design, the protocols we use, troubleshooting results, and making sense of results to draw conclusions. All quizzes are open notes (lab manual, lab notebook, lab summary pages – you can use a computer to access your notes). **If you miss a quiz because of illness or emergency, you can re-do the quiz during the final lab day.** You can also re-do a quiz on the final lab day to improve any quiz score (highest is counted). The final quiz scores will be weighted as follows: highest 10/20, mid 6/20, lowest 4/20. |
| CRISPR Write-Up | 27 | The goal of the write-up is to make sense of our data as they relate to our research questions. This will involve identifying relevant prior literature, how our study fills existing gaps in the literature, summarizing our |

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| | | methods, presenting the results, and constructing scientific arguments to explain the results. Arguments consist of claims, evidence to support, and providing reasoning in the form of a biological/molecular/experimental explanation or hypotheses, relating to other literature, and critiquing the limits of our claims and data. A draft will be submitted for peer-review, and then a final version. Guidelines and rubrics will be provided on Canvas. |
| TAS2R38-PTC Project Lab Summary Page | 3 | This assignment will involve analyzing genotype-phenotype data generated by yourself, and the class, and answering questions posted in the Lab Summary Page for this project. Please consult the course schedule for due date. |
| Professionalism | 1 | This portion of the course grade is intended to motivate students to consider the impact of their actions on their own learning and the learning of others in the course. Unprofessional interactions consume time yet have no meaningful benefits to you, your fellow students, and/or the teaching team. Analogously in the workplace, being unprofessional to your colleagues or supervisors will only discount you. When you are discounted, you will not be invited for new opportunities that you may or may not be aware of. Professionalism can be demonstrated through being prepared, individually demonstrating meaningful participation in the course (especially during lab time), maturity and respectful behavior towards others. Please see below in the syllabus for more details on professional conduct. |
| Class participation | 5 | If you are able to and choose to participate in class for at least 80% of class sessions, you will earn 5 points. If you cannot or choose not to participate in at least 80% of class sessions these 5 points will be added to the weight of your pre-lab questions. |
| *Flex points | 4 | Because different people may excel in different aspects, quizzes will be worth 24% or the CRISPR write-up worth 31%, depending on what benefits each individual student, bringing the total to 100. |
| Total | 100 | |
| Bonus opportunity | 1 | (e.g., surveys – will be posted on Canvas) |

**Grading Scale**

The following grading scheme will be used. The course is **not** graded on a curve (i.e., 20% of students getting A, 20% B, 20% C, and such). Thus, the ability to do well in this course is not dependent on others doing poorly.

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| 90-100 A | A- 90-93; A 94-97; A+ 98-100 |
| 80-89 B | B- 80-82; B 83-86; B+ 87-89 |
| 70-79 C | C- 70-72; C 73-76; C+ 77-79 |
| 60-69 D | D- 60-62; D 63-66; D+ 67-69 |
| 59 or lower, F | |

**DO NOT USE THE "TOTAL POINTS" IN CANVAS GRADES TO DETERMINE YOUR GRADE**. The total column does not account for flexible weighting and dropping of low scores (for some components of the course) - thus, it is not an accurate reflection of your grade. Occasionally I will post updates - and you can always estimate your grade using the weighting scheme described above and information below.

## Professionalism

***Example interactions with meaningful benefits:***

- Actively participating in lab sessions, which includes being prepared to engage in discussions and ask questions.
- Developing deeper insight into course material, concepts, biology, and/or society in general
- Working collaboratively to improve in skill building and future opportunities
- Contributing to an inclusive learning environment
- Learning conceptually and meaningfully why full credit was not awarded for an assignment
- Clarifying course material that facilitates deeper learning
- Clarifying course material that facilitates deeper learning
- Reporting errors or problems in class, on assignments, or for other course material
- Arriving on-time to lab sessions and being prepared to work in lab

***Example interactions that have no meaningful benefits and thus should be avoided:***

- Not showing up or being late to lab session
- Contributing inequitably to teamwork
- Harassing and/or bullying the instructional team or other students, either in person or online
- Asking questions when the information is already available or will eventually be known (this does not include asking clarifying questions about content/concepts)
- Ignoring the directions or requests from the instructional team

## Summary of accommodations for illness and emergencies

Review the descriptions of the course work above and how flexible policies are built in to almost every part of the course to accommodate for illness and emergencies resulting in a missed assignment or test. Because there is built-in flexibility (e.g., drop lowest scores, miss up to two pre-lab assignments, quiz re-dos) there are **no make-ups for missed assignments and anything with built-in flexibility may not be submitted late.** If you are unable to submit something on time because of illness or emergency, you are still encouraged to do the work and ask for feedback.
If a serious illness or emergency interferes with the CRISPR write-up, please discuss with your instructor (documentation may be requested).

***What if I am feeling sick/have an emergency on a quiz day?***
Do not attend class, lab, or tests if you are ill. You can do the quiz once you are back *for* feedback, and then do the quiz re-do (last lab) for points.

***What if I miss a quiz and the quiz re-do day because of illness or an emergency?***
In the case of a missed quiz and a missed final lab day (quiz re-do day), you will be asked to provide documentation to both me and the Dean of Academic Affairs and/or Student Affairs of your college. Upon receipt of documentation, it will be determined if you can receive a grade of "Incomplete" ("I"). Students with an incomplete will have the opportunity to take a quiz re-do at a later date – set by the

instructor. You must have a passing grade in the course to be eligible for an Incomplete (in addition to the approved reason and documentation noted above). You must have taken at two of three in-lab quizzes in order to be eligible for an "Incomplete" (in addition to documentation).

## Academic integrity

https://students.ucsd.edu/academics/academic-integrity/index.html

**Integrity of scholarship** is essential for an academic community. The University expects that both students and faculty will honor this principle and in so doing protect the validity of University intellectual work. For students, this means that all academic work will be done by the individual(s) to whom it is assigned, without unauthorized aid of any kind. In this course, we need to establish a set of shared values. Following are values* adopted from the International Center for Academic Integrity, which serve as the foundation for academic integrity.

| | **As students we will……..** | **As the teaching team we will…..** |
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| **Honesty** | • Honestly demonstrate your knowledge and abilities according to expectations listed in the syllabus or in relation to specific assignments and exams<br>• Communicate openly without using deception, including citing appropriate sources | • Give you honest feedback on your demonstration of knowledge and abilities on assignments and exams<br>• Communicate openly and honestly about the expectations and standards of the course through the syllabus and in relation to assignments and exams |
| **Responsibility** | • Complete assignments on time and in full preparation for class<br>• Show up to class on time and be mentally and physically present<br>• Participate fully and contribute to team learning and activities | • Give you timely feedback on your assignments and exams<br>• Show up to class on time and be mentally and physically present<br>• Create relevant assessments and class activities |
| **Respect** | • Speak openly with one another while respecting diverse viewpoints and perspectives<br>• Provide sufficient space for others to voice their ideas | • Respect your perspectives even while we challenge you to think more deeply and critically<br>• Help facilitate respectful exchange of ideas |
| **Fairness** | • Contribute fully and equally to collaborative work, so that we are not freeloading off of others on our teams<br>• Not seek unfair advantage over fellow students in the course | • Create fair assignments and exams and grade them in a fair and timely manner<br>• Treat all students and collaborative teams equally |
| **Trustworthiness** | • Not engage in personal affairs while on class time<br>• Be open and transparent about what we are doing in class<br>Not distribute course materials to others in an unauthorized fashion | • Be available to all students when we say we will be<br>• Follow through on our promises<br>• Not modify the expectations or standards without communicating with everyone in the course |

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| **Courage** | • Say or do something when we see actions that undermine any of the above values<br>• Accept the consequences of upholding and protecting the above values | • Say or do something when we see actions that undermine any of the above values<br>• Accept the consequences of upholding and protecting the above values |

** This class statement of values is adapted with permission from Tricia Bertram Gallant Ph.D.*

All course materials are the property of the instructor, the course, and the University of California, San Diego and **may not** be posted online, submitted to private or public repositories, or distributed to unauthorized people outside of the course.

Any work associated with the course is expected to be done by you, the enrolled student, and you alone. Discussing overall concepts is a great way to help in learning, but it is not permitted to discuss question answers or share answers.

I take academic integrity very seriously. Any suspected instances of a breach of academic integrity will be reported to the Academic Integrity Office for review and possibly given a score of 0.

### Using AI

Using AI (e.g., chatGPT or similar) can be a very helpful tool for learning! You can ask it questions to help clarify your understanding, or check some calculations you have planned, or get a review of some background information. However, be critical of the responses because, although powerful, it can still provide incorrect responses or ideas that are not evidence-based. With any assignment or writing, it is fine to use such a tool for clarification, or to help brainstorm, but the expectation is that any final work submitted is not AI-generated. Your submitted work must come from your thinking, your understanding, your way of communicating ideas. If you are unsure, please ask! **If** you use AI to help with any part of your writing (background literature, understanding a concept or process, making sense of some information) you are asked to cite the tool as a resource and indicate specifically how you used it.

### Regrades

If a grading error has been made, you should submit a re-grade request via GradeScope (or on paper). Students who submit items for re-grading understand that **the instructor may re-grade the entire test/homework and the score may go up *or* down**. Regrade requests may not be processed until the end of the quarter, and at that time there will be no regrades for a student with an A or A+.

### Accessibility

http://disabilities.ucsd.edu | osd@ucsd.edu | 858-534-4382

Any student with a disability is welcome to contact me early in the quarter to work out accommodations to support their success in this course. Students requesting accommodations for this course due to a disability should work through the Office for Students with Disabilities (OSD). Instructors will receive Authorization for Accommodations Letters from the OSD online portal. Whenever possible, we will use universal designs that are inclusive. If you have feedback on how to make the class more accessible, please get in touch!

### Inclusion

It is our goal to create a learning environment that supports diversity of thought, perspective, experience, and identities. We encourage all of you to participate in discussion and contribute to the

field from your perspective. If you have feedback on how to make the class more inclusive, please get in touch!
Office of Equity, Diversity, and Inclusion:
858.822.3542 | diversity@ucsd.edu | https://diversity.ucsd.edu/
https://students.ucsd.edu/student-life/diversity/index.html
https://regents.universityofcalifornia.edu/governance/policies/4400.html

## Resources for Support and Learning

| **Learning and Academic Support** | |
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| **Ask a Librarian: Library Support**<br>*Chat or make an appointment with a librarian to focus on your research needs*<br><br>**Course Reserves, Connecting from Off-Campus and Research Support**<br>*Find supplemental course materials*<br><br>**First Gen Student Success Coaching Program**<br>*Peer mentor program that provides students with information, resources, and support in meeting their goals*<br><br>**Office of Academic Support & Instructional Services (OASIS)**<br>*Intellectual and personal development support* | **Writing Hub Services in the Teaching + Learning Commons**<br>*One-on-one online writing tutoring and workshops on key writing topics*<br><br>**Supplemental Instruction**<br>*Peer-assisted study sessions through the Academic Achievement Hub to improve success in historically challenging courses*<br><br>**Tutoring – Content**<br>*Drop-in and online tutoring through the Academic Achievement Hub*<br><br>**Tutoring – Learning Strategies**<br>*Address learning challenges with a metacognitive approach* |
| **Support for Well-being and Inclusion** | |
| **Basic Needs at UCSD**<br>*Any student who has difficulty accessing sufficient food to eat every day, or who lacks a safe and stable place to live is encouraged to contact:* foodpantry@.ucsd.edu \| basicneeds@ucsd.edu \| (858) 246-2632<br><br>**Counseling and Psychological Services**<br>*Confidential counseling and consultations for psychiatric service and mental health programming* | **Community and Resource Centers**<br>**Office of Equity, Diversity, and Inclusion**<br>*As part of the Office of Equity, Diversity, and Inclusion the campus community centers provide programs and resources for students and contribute toward the evolution of a socially just campus*<br>(858).822-.3542 \| diversity@ucsd.edu<br><br>**Get Involved**<br>*Student organizations, clubs, service opportunities, and many other ways to connect with others on campus* |

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| **Triton Concern Line**<br>*Report students of concern:* (858) 246-1111<br><br>**Office for Students with Disabilities (OSD)**<br>*Supports students with disabilities and accessibility across campus* | **Undocumented Student Services**<br>*Programs and services are designed to help students overcome obstacles that arise from their immigration status and support them through personal and academic excellence* |

**Health and Well-Being Statement**

Students may experience stressors that impact academics and personal well-being. These can include academic stress and pressure, relationship challenges, mental health, drugs and alcohol, identities, finances, and other factors. If you are experiencing stress and concerns it is courageous to seek help! If your stressors are academic, please contact me and I am happy to discuss solutions. I would also encourage you to reach out to the Dean of Academic Affairs for your college. For additional stressors UCSD offers a variety of resources, some of which you can find here: https://vcsa.ucsd.edu/student-success/student-well-being.html

**Subject to Change Policy**

The information contained in the course syllabus may be – under certain circumstances (e.g., to enhance student learning) – subject to change with reasonable advance notice, as deemed appropriate by the instructor. Any changes are announced on Canvas (please be sure to have your notifications settings on to receive updates/emails/announcements).

**Letter of Recommendation Policy**

If you think you may want me to write you a letter of recommendation (or any other instructor), please consider what a good letter would contain and how your actions in the course demonstrate the qualities you will want highlighted in a letter. When students ask me for a letter of recommendation, I ask them to write to me about how they demonstrated critical thinking, leadership, collaboration, and professionalism. I will be specifically looking for examples of these qualities *that I would have observed* during class, lab, and office hours. Be sure to actively participate in the discussions, talk to me during class and office hours, ask questions, offer your own ideas and interpretations of what we are covering, bring interesting facts/papers that are connected to the material we are studying. If you don't actively show the qualities that are needed to write a good letter, it will be hard for me to write a letter that is meaningful and useful.

**Technical Support**

For help with accounts, network, and technical issues: https://acms.ucsd.edu/contact/index.html
For help connecting to electronic library resources such as eReserves and e-journals: https://library.ucsd.edu/computing-and-technology/connect-from-off-campus/

**Campus Policies**

- **UC San Diego Principles of Community**
- **UC San Diego Policy on Integrity of Scholarship**
- **Religious Accommodation**
- **Nondiscrimination and Harassment**
- **UC San Diego Student Conduct Code**