BIMM101 Summer Session I 2018
Recombinant DNA Techniques

Lecture: Tu W Th F 11AM -12:20 PM SEQUOYAH 147
Labs: Tu W Th F 1 PM- 4:50 PM York 4318 / 4332

Instructor: Monica Chu, PhD
Email: mwchu@ucsd.edu
Office: H&SS 1145LA
Office hours: Location (TBA)
     Thursdays 9:30 -10:30 AM (Starting week 2)
     (if you can't make it during this time, feel free to contact me to schedule an appointment)

Instructional Assistants: **Lance** lyhsieh@ucsd.edu
          Kaitlin kbessing@ucsd.edu

Learning goals:

- Learn the theory behind molecular techniques, and the applications of the methodologies in biological research
- Become proficient at basic molecular biology techniques
- Learn the importance of proper controls in designing experiments and interpreting results
- Improve lab math skills and ability to graph data correctly
- Learn to draw logical conclusions from experimental data
- Become familiar with bioinformatics databases and applications
- Learn to find, read, and evaluate primary literature
- Become aware of the implications of the technology for society

---

Course Website:
All materials for the class will be uploaded on TritonEd (https://tritoned.ucsd.edu/).
The syllabus, lecture notes, announcements, and study guides will be posted here, so please make sure to check the website regularly for important information.

Required Text: BIMM101 Manual with carbon copy pages (Available at the UCSD Bookstore)
Optional Text: From Genes to Genome by Dale (1st, 2nd, or 3rd edition) Available on reserve at the library, or electronic version are available online at roger.ucsd.edu

Required Lab Safety Training: Enrolled and waitlisted students *MUST* successfully complete the Biology Lab Safety Training and Assessment before the first lab session: https://dbsportal3.ucsd.edu:3443/safety-training/. Please note that courses offered by other departments (Chemistry, for example) may have additional safety training requirements.

Required Materials:
You need to bring these materials to *every* lab.
(all materials are required by the second day of lab)

- ☐ Lab Manual (available at the bookstore)
- ☐ Carbon Copy lab notebook
- ☐ Labcoat – must go to knees (available at bookstore)
- ☐ UV blocking safety glasses (bookstore)
- ☐ Fine point Sharpie for labeling (dark ink)
- ☐ Calculator (for lab and quizzes; no cell phones allowed)
- ☐ Long pants and closed-toed shoes are always required in lab (everything should be covered from the waist down)

Course Components:
Lecture: Attend lecture to engage in class discussion with peers/using iClickers
Lab: Work with your team to perform experiments, gather data, interpret results, and make logical conclusions.
Writing assignments: Lab reports will be submitted online and hard copies will be handed in within the first five minutes of lecture.
Pre-class reading and short online reading assignments
Quizzes and Final Exams: Quizzes and the final exam will be occur at the start of lab sessions.

Lab Attendance Policy:
You are required to attend every lab. If you miss a lab, you must have a documented medical excuse. Failure to provide proper medical documentation will result in a 5% deduction from your final grade. If you miss two labs for undocumented reasons, then you will be asked to drop the course. If you show up more than five minutes after the start of lab, you will be considered *late*. *Two late attendances will equal one undocumented absence, and you will be docked 5% from your final grade.*

Late assignments and quizzes:
No credit will be given for missed quizzes or clicker questions.
Lab reports that are submitted late (more than 5 minutes after lab has started) will have 10% deducted for anything handed in within 24 hours of the deadline, and an additional 10% for every 24 hours after that.

Grading

Professionalism: 2%

In this lab course, you will be working on a team on your experiments. We expect that you be respectful to yourself and your peers, and to come to lab with a professional attitude and effort. Your actions in the class will be taken into consideration by the IAs and instructor when calculating the final grade. If you behave unprofessionally, points will be docked.

iClicker participation: 5%

You will not be graded for correctness on the clicker questions. If you participate in more than 85% of the lectures, then you will receive full iClicker participation credit. There are no makeups for clicker participation credit if you miss a lecture.

Pre-class reading and short online reading assignments: 8%

Lab Notebooks and in-lab assignments: 8%

- *Before every lab*, you will be asked to prepare and think about the experiment you are performing for the day. This preparation includes writing the goals for the day, your plan, and your predictions for the results that you will get that day in your lab manual.
- Refer to Pages 8 and 9 in the lab notebook for guidance on what to write in your notebook as you are conducting the labs. This includes your notes , your critique of your results, and an outline of the next steps (if your lab continues to the next day). *Carbon copies will be collected at the end of the lab.*
- *Your lab notes (carbon copies) will be collected for every lab, and select labs will be graded.*
- *There will also be lab assignments (computer lab) in lab that are submitted through TED*

In-lab quizzes: 18%

During the Friday lab of week 2,3 and 4, there will be 3 weekly short in-lab quizzes that will be worth a total of 18%. The quizzes will require a simple scientific calculator (no cell phones allowed) and will be closed book (no notes, textbooks, or laptops out in the open). These will be given at the beginning of lab on Fridays. If you show up more than 5 minutes late, you will not be allowed to take the test. There are no makeups for the in-lab quizzes.

Writing assignments: 24%

There will be 4 assignments worth a total of 24% of the points. Due dates will be posted TritonEd and announced in lecture. Each writing assignment must be written in your own words and a printed hardcopy must be submitted at the beginning of lab on the due date, as well as submitted online to TritonEd at the beginning of lab (no later than 5 minutes after the start of class).

- Writing in your own voice assignment – 2%
- PCR variations mini report – 7%
- Ligation efficiency mini report – 7%
- Promoter mutants mini report – 8%

Final Quiz: 35%

There will be an in-class cumulative quiz during your last lab section of the quarter, worth 35% of the final grade.

	%		%		%		%		%
A+	97-100	B+	87-100	C+	77-80	D+	67-70	F	<60
A	93-97	B	83-87	C	73-77	D	63-67		
A-	90-93	B-	80-83	C-	70-73	D-	60-63		

Academic Integrity:
We hold you, as students in UCSD community, to the highest standards of academic integrity. Whether you are writing a lab report, taking an online reading quiz or an in-class exam, we expect you to demonstrate trust in your own intellect and respect for yourself and your fellow students. This means that you will not engage in academically dishonest activities, such as plagiarizing, fabrication of data, cheating, or copying work you should be completing on your own. We also expect that you do not facilitate other students in engaging in academically dishonest activities.

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 suspected instances of a breach of academic integrity will be reported to the Academic Integrity Office for review.

Regrades: If you believe that an error in grading has been made, please contact Dr. Chu (mwchu@ucsd.edu) for a regrade request within 48 hours of when you first received the graded exam, and be specific about the possible error.

Regrades are not possible for exams that are written in pencil or erasable ink. Exams submitted for regrades will be compared with a scanned copy of the original exam and/or the entire exam may be graded again.

Accommodations:
Students requesting accommodations for this course due to a disability must provide a current Authorization for Accommodation (AFA) letter issued by the Office for Students with Disabilities (OSD) which is located in University Center 202 behind Center Hall. Students are required to present their AFA letters to Faculty (please make arrangements to contact me privately) and to the OSD Liaison in the department in advance so that accommodations may be arranged.
Contact the OSD for further information:

<div align="center">

858.534.4382 (phone)
osd@ucsd.edu(email)
http://disabilities.ucsd.edu(website)

</div>

Letters of Recommendation:
For recommendation letters, I require that you have an A in the course, and that you have spoken to me either in lab, or during my office hours.

Writing Support for Students:
If you are interested in improving your writing, I encourage you to make an appointment with The Writing Hub at UCSD. Just register for an account, and they will put you in touch with an undergraduate writing mentor. https://ucsd.mywconline.com/

These mentors can help you out with any part of the writing process that you want to improve upon or find yourself struggling with. For more information, read about their services here http://commons.ucsd.edu/students/writing/index.html

Tutoring is available at OASIS (Office of Academic Support and Instructional Services)
From the OASIS website (https://students.ucsd.edu/sponsor/oasis/): We are the learning center at UC San Diego and provide most of the free tutoring on campus in a collaborative, supportive environment. All UC San Diego students are eligible to receive OASIS services. Each year, OASIS serves 3,000 students in language, math, science, study skills, and writing as well as peer counseling and peer mentoring. They are located on the third floor of Center Hall, (858) 534-3760 (phone), oasis@ucsd.edu

Student Support Offices and Programs:
There are many resources at UCSD which support and celebrate our diverse community on the UCSD campus. I encourage you to explore the available resources here: https://students.ucsd.edu/student-life/diversity/