

## **Winter 2024            BIMM 101—Recombinant DNA Techniques**

**Instructor:** Andrew Cooper (he/him/his)

**Office:** HSS 1145C

**E-mail:** [a5cooper@ucsd.edu](mailto:a5cooper@ucsd.edu) (Include BIMM 101 in the subject line)

**Lecture Meeting:** TuTh 8:00-9:20a PODEM 1A18

**Lab Meeting:** TuTh 9:30-1:20p or 2:30-6:20p YORK 4318/4332

**Office Hours:** Friday 6:00-7:00p on [Zoom](#) or by appointment

### **Course Learning Objectives:**

By the end of this course, you should be able to:

1. Demonstrate proficiency with basic molecular biology techniques.
2. Apply knowledge of molecular biology concepts and techniques to plan and troubleshoot experiments.
3. Interpret results in a biological context and report them in a coherent and accurate written form.
4. Explain the importance of proper controls in designing experiments and interpreting results.
5. Perform basic lab math skills, statistical analysis, and generate graphs.

**Contacting Me:** Please ensure that all e-mails include BIMM 101 in the subject line and if the matter requires immediate attention include URGENT in the subject line as well. If I do not respond to an e-mail within 24-48 hours, please send it again.

**Required Materials:** Lab Manual, knee-length lab coat, and UV-blocking safety glasses or goggles. Long pants and closed toe/heel shoes are required in lab (no visible skin from the waist down). Ultra-fine tipped sharpie pen in a dark color for labelling. iClicker for lecture participation, registered. (Optional): Calculator.

**Computers:** We will often use computers for data analysis and other exercises. There is access to a limited number of computers in lab, therefore if you have your own laptop it is recommended that you bring it on days scheduled for computer activities.

**Canvas:** All course-related information will be posted on our Canvas site. The lecture slides will usually be posted before lecture. Please check the Canvas site and your UCSD e-mail regularly for any announcements.

**Podcast:** Each lecture will be podcasted. They can be found after lecture by clicking the podcast link on the lefthand side of our Canvas page.

**iClickers:** iClickers are required for this course. The frequency in this classroom is BA. You must register your clicker by Monday, January 15<sup>th</sup>. Clicker participation will be counted beginning with Lecture 2 on Thursday, January 11<sup>th</sup>.

**Instructional Assistants (IAs):**

C01	YORK 4318	Mindy Nguyen	a6nguyen@ucsd.edu
C02	YORK 4332	Sejal Patel	supatel@ucsd.edu
C03	YORK 4318	Christina Lim	k6lim@ucsd.edu
C04	YORK 4332	Jibin Zhang	jiz139@ucsd.edu

**Homework Assignments:** Throughout the quarter there will be 6 homework assignments (lowest score dropped) that will be based on material from previous lectures & labs, or papers assigned for reading. You will have several days to complete these outside of class through Gradescope. More information will be given before the first homework.

**Pre-Lab:** For most lab days you will be asked to complete pre-lab activities in your digital lab notebook. You will also need to upload screenshots of portions of those submissions and submit them on Canvas before lecture on those days. Information regarding what to complete for your pre-lab and when you need to submit items on Canvas will be provided in Lab Tasks documents that will be posted on Canvas for each lab meeting. Pre-lab submissions will be graded as Satisfactory or Unsatisfactory, however they will be marked in the Canvas Gradebook as a 1 or a 0. Your first two Unsatisfactory scores will be dropped.

**Lab Notebook:** Maintaining an organized and detailed lab notebook is an essential component of scientific research, therefore you will be required to maintain a lab notebook for this course. We will be using digital lab notebook. You will each be provided with the link to a google doc that you will use for you lab notebook. For each lab there should be a dated entry containing an outline of the experiments/protocols being done that day, the goals of the experiments, predictions about the outcomes, as well as observations made throughout the experiments and clearly labeled results and analysis. Throughout the quarter the lab notebooks will be graded at random, with no advance warning.

**Writing Assignments:** There will be 4 writing assignments throughout the quarter. Writing assignments must be uploaded to Turnitin on Canvas by 11:59p on the day the assignment is due. Assignments turned in within 24 hours of the due date will have a 20% deduction of the total possible points. After 24 hours, late assignments will not be accepted. More details will be provided for each assignment.

**Professionalism:** Activities in a lab environment should be undertaken with caution and maturity, as careless actions can quickly result in injury or damage to equipment. The assumption is that all students will act with appropriate maturity and are automatically given 50 points at the start of the semester. Deductions can be made by the instructor or IAs for unprofessional activities in lab, through one-on-one conversations, or electronic interactions.

**In-Class Participation Points:** There will be 19 lectures throughout the semester where clicker participation will be monitored. You need to receive credit in 15 of the 19 lectures for full participation credit. Clicker points will be counted starting Thursday, January 12<sup>th</sup>. You do not need to get the correct answer for clicker questions, just click in for every

question. You must click in for the questions to be eligible for participation points for that lecture, however this is not sufficient for full participation scores, you must also actively participate in small group discussions and share out answers.

**Tokens:** At the start of the quarter each student has 4 “tokens” that can be redeemed throughout the quarter. There are three ways tokens can be used. (1) A token can be used for a one-day extension on a homework assignment with no late deduction. (2) A token can be used for a one-day extension on a writing assignment with no late deduction. (3) A token can be used to redo a question from a homework assignment. To use a token for a 24-hour extension you must email me within that 24-hour period. Please make “BIMM 101 Token” the subject line of the email. In the body of the email inform me that you would like to use a token for an extension. To use a token to redo a homework question you will use the “regrade” option on Gradescope. You will write out your new answer and submit it within 5 days of the initial grading being released. Your new answer will be graded as if it was your initial submission. You do not need to email me. You can use a maximum of 2 tokens on a single homework assignment. If a question has multiple parts you can redo as many of the parts as you want, for a single token.

**Regrades:** If you believe there was an error made in your grading, schedule a time to speak with me one-on-one to discuss the possible issue. I do not discuss grading over email, but you can email me to set up a meeting time. Do not use the “regrade” option on Gradescope to argue that grading was not correct, that is only being used for token redos.

**Grading:** Grading in this course is not curved, so in theory every person could earn an A! You are not competing with each other for grades, so work together!

Lecture Participation	15%	Letter grades are assigned as follows: 90-100: A 80-89: B 70-79: C 60-69: D Below 60: F
Homework	20%	
Pre-Labs	5%	
Lab Notebook	10%	
Professionalism	5%	
Writing Assignments	45%	
<b>Total</b>	<b>100%</b>	

**Late Work Policy:** Writing assignments and homework assignments turned in within 24 hours of the due date will have a 20% deduction. After 24 hours, late assignments will not be accepted. If you experience extenuating circumstances (e.g., you are hospitalized) that prohibit you from submitting your assignments on time, please let me know as soon as possible. I will evaluate these instances on a case-by-case basis.

**Lab Attendance:** Attendance in lab is required. Missing the first lab will result in being dropped from the course. Missing one lab without documentation/approval will result in a 5% deduction in your final course grade. If you miss two labs without documentation/approval, you will be asked to drop the class.

**Disability Access:** Students requesting accommodations for this course due to a disability must provide a current Authorization for Accommodation (AFA) letter (paper or electronic) issued by the Office for Students with Disabilities (link to OSD website.) Students are required to discuss accommodation arrangements with instructors and OSD liaisons in the department in advance of any exams or assignments.

Contact the OSD for further information:

858.534.4382      [osd@ucsd.edu](mailto:osd@ucsd.edu)      <http://disabilities.ucsd.edu>

**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](mailto:diversity@ucsd.edu)      <https://diversity.ucsd.edu>

<https://students.ucsd.edu/student-life/diversity/index.html>

<https://regents.universityofcalifornia.edu/governance/policies/4400.html>

**Title IX Compliance:** The University recognizes the inherent dignity of all individuals and promotes respect for all people. Sexual misconduct, physical and/or psychological abuse will NOT be tolerated. If you have been the victim of sexual misconduct, physical and/or psychological abuse, we encourage you to report this matter promptly. As a member of this community, I am interested in promoting a safe and healthy environment, and should I learn of any sexual misconduct, physical and/or psychological abuse, I must report the matter to the Title IX Coordinator. If you want to speak confidentially you may contact the Counseling Center.

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](mailto:ophd@ucsd.edu)      <http://ophd.ucsd.edu>

Students may receive confidential assistance at CARE at the Sexual Assault Resource Center at: 858.534.5793      [sarc@ucsd.edu](mailto:sarc@ucsd.edu)      <http://care.ucsd.edu>

Counseling and Psychological Services (CAPS) at: 858.534.3755 <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 department Chair, a faculty member 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.

**Academic Integrity:** Students are expected to do their own work, as outlined in the UCSD Policy on Academic Integrity. Cheating and plagiarism will not be tolerated, and I will fail any student caught engaging in academic dishonesty. Lab assignments must be written in your own words and will be checked for plagiarism. Plagiarism of any kind will not be tolerated and will result in a failing grade. Use of AI is not acceptable on any assignment you complete in this course. If you are unsure of what constitutes plagiarism it is your responsibility to seek out clarifying information. The UCSD library website has a series of modules around plagiarism that can be found [here](#).

**Writing Center:** The Writing Center provides support for undergraduates working on course papers (i.e. laboratory reports and the research proposal) and independent writing projects. Writing mentors can help at any stage of the writing process, from brainstorming to final polishing.

The Writing Center offers: one-on-one appointments for undergraduates with peer writing mentors; group workshops addressing a variety of writing projects, genres, and issues; and Drop-In Zone for quick questions, targeted assistance, and a comfortable writing space. <https://writingcenter.ucsd.edu/>

**Technology Policy:** Students are welcome to bring laptops to lecture for note-taking purposes. Please see this research study that shows “multi-tasking” on computers is likely to decrease your grade, but it also decreases the grades of people around you who can see your screen! For this reason, we ask that you be considerate about flipping between lectures notes and other platforms.

4 Sana et al. 2013.

<http://www.sciencedirect.com/science/article/pii/S0360131512002254>

**Basic Needs:** Any student who has difficulty accessing sufficient food to eat every day, or who lacks a safe and stable place to live, and believes this may affect their performance in this course, is encouraged to contact:

858.246.2632      [foodpantry@ucsd.edu](mailto:foodpantry@ucsd.edu)      [basicneeds@ucsd.edu](mailto:basicneeds@ucsd.edu)

### **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/>