

Fall 2022 BIMM 101—Recombinant DNA Techniques

Instructor: Andrew Cooper (he/him/his)

Office: HSS 1145B

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

Lecture Meeting: MWF 8:00-8:50 am SEQUO 147

Lab Meeting: WF 9:00-12:50 pm YORK 4318/4332

Office Hours: WF 3:30-4:30 pm or by appointment in HSS 1145C

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 (supplied in first lab), 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 on Canvas. (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 either before lecture or immediately after. Please check the Canvas site and your UCSD e-mail regularly for any announcements.

Podcast: Each lecture will be podcasted.

iClickers: iClickers are required for this course. The frequency in this classroom is CA. You must register your clicker on Canvas, by Monday, October 3rd. Clicker participation will be counted beginning with Lecture 2 on Monday, September 26th.

Instructional Assistants (IAs):

Barney, Nathan
Beliaev, Sophia

nbarney@ucsd.edu
vbeliaev@ucsd.edu

D01 – YORK 4318
D02 – YORK 4332

Homework Assignments: Throughout the quarter there will be 5 homework assignment (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 on Canvas. More information will be given before the first homework.

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. Before the class begins you need to obtain a carbon-less copy 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 written 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 a within 24 hours of the due date will have a 20% deduction. 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 26 lectures throughout the semester where clicker participation will be monitored. You need to receive credit in 22 of the 26 lectures for full participation credit. Clicker points will be counted starting Monday, September 26th. 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.

Grading: Grading in this course is on a straight point scale so in theory, every person could earn an A! You are not competing with each other for grades, so work together!

	Points	Letter grades are assigned as follows:
Lecture Participation	90	675-750: A
Homework (40 pts each)	160	600-674: B
Lab Notebook	100	525-599: C
Professionalism	50	450-524: D
Writing Assignments	350	Below 450: F
Total	750	No +/- will be given

Late Work Policy: 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

<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

<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 <http://ophd.ucsd.edu>

Students may receive confidential assistance at CARE at the Sexual Assault Resource Center at: 858.534.5793 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. All exams will be closed-book and closed-notes, so all personal materials must be stowed under your seat. Any student caught cheating on an exam will receive a failing grade for the course. Lab assignments must be written in your own words and will be submitted through Turnitin. Plagiarism of any kind will not be tolerated and will result in a failing grade. 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 screen⁴! For this reason, we ask that you be considerate about flipping between lectures notes and other platforms. The use of cell phones, computers, or any other electronic devices is not permitted during quizzes. Use of a cell phone or other similar electronic devices during an exam or quiz is grounds for receiving a failing grade.

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 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/>