

11:126:401: Seminar in Biotechnology, Spring 2026

Section 01

Friday 2:00-3:20pm

Location: Foran 262

Instructor: Alanna Cohen

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Covid Safety Procedures:

In order to provide everyone with a safe learning environment, we ask that you abide by the following rules as instated by the university for attending in-person class.

Please follow all Rutgers Community Safety Practices <https://coronavirus.rutgers.edu/health-and-safety/community-safety-practices/>. You must be vaccinated to attend and must attend unless you have been given a special dispensation from the university. I would like you to know that I am vaccinated. Presentations will be given in person as we always have in the past.

If you feel unwell, DO NOT attend class. Let me know and I will work with you to make up work as detailed in the Rutgers [Community Safety Practices](#).

Course CANVAS Site:

Each section has its own course canvas site. Make sure you are enrolled on it and have access to it. All the relevant materials will be posted on it.

Course Learning Objectives:

Biotechnology is a rapidly expanding field in which new information, discoveries and applications are reported each and every day. As with many areas of sciences, the most current information can only be found in journals or presented at scientific conferences and meetings; by the time textbooks are written, edited and published, much of the cutting edge information may be outdated. This seminar course is designed to give you practice in the critical reading of research articles from scientific journals, and in the oral and visual presentation of scientific information to your colleagues. Because some of the technical advances in biotechnology have given rise to social, ethical and legal considerations, we may examine these issues as well.

Course Evaluation:

You will be evaluated based on oral presentations, attendance at outside seminars and class participation as detailed below:

I. Oral Presentations: (2 X 35% of total grade)

- Students are required to give two presentations during the course of the semester. At least one presentation **MUST** be on a paper published in the last five years from a scientific journal, on a topic of your choice in the area of biotechnology.

- The journal article must be a “primary” literature article, containing original data, and not a review article. You must provide your course instructor an electronic copy of the paper you have chosen one week before the scheduled presentation, so that he/she can review the selection for appropriateness. **Your article must be approved by your instructor at least two weeks in advance.**
- The other presentation could take either one of two possible formats. If you are involved in research, an internship, or a SPIN (cooperative education) placement during the past summer or last spring or have begun a project this semester, you may choose to describe your project. If you are not involved in an experience-based education or research project, or if you prefer, your second presentation may focus on a second primary journal article. **If you are giving your second presentation on a second primary article, your topic or article should also be approved by your instructor.**
- Please note that your instructor reserves the right to decline your selection of topic or paper, if he/she feels it is beyond the scope of the field of biotechnology, too difficult or has been already/overly discussed.
- Also note that it is not necessary to do the primary literature article first- you can choose to do topic presentation first i.e. earlier in the semester. You should decide this based on your comfort level with reading scientific literature.
- Your presentation should be 20-25 minutes in length (no more than 30 minutes). Be sure to practice your talk and time yourself, so you keep to the time allowed. You are required to make PowerPoint presentations.
- Bring your presentation to class on a USB drive or by other method approved by the instructor.
- Please read the article “Projecting Slides That No One Reads” before preparing your seminar. It will help you tremendously to make power point presentations.

II. Attendance at “Outside Seminar Presentations”: 15% of total grade)

- It is often helpful to learn how to give seminars by attending presentations of other speakers who are more experienced than you might be. Each student should attend at least two “outside seminar” presentations during the semester.
- Notices are posted online at <http://events.rutgers.edu/seminars>. These notices alert you to time, place and topic. Be sure that the seminars that you choose for this class assignment are relevant to biotechnology, defined in the broadest sense. **Since some seminars may be held remotely, you may need to register ahead of time to “attend” the seminar.** Pay attention to the seminar notice on how to register.
- You should write a one-page summary of each of the two seminars you attended which you will provide to your instructor as a hard copy. A template has been provided for you to use on CANVAS site.
- It is best to prepare the summaries of the seminars shortly after you hear the seminar so that you will be more likely to retain the new information you heard. You must submit your summary within two weeks of attending the seminar.

- The summary should be typed and organized as follows: Title of seminar, seminar speaker, date of seminar; 100-200 words briefly describing take home message of the seminar; 100-200 words describing presentation style – what was particularly good and/or bad about the delivery.

III. Class Participation: (15% of total grade)

- Attendance is mandatory component of this course. You are expected to attend all classes. In case of extreme emergency you can be excused from the class with prior notice and bonafide documentation.
- You are expected to be an active participant in the class i.e you are to ask questions or add to the current discussion of the topic.

Some of you may not have given this type of seminar presentation before, so improvement from the first to the second presentation in particular will be monitored. Students will (anonymously) critique each other. All students are expected to provide feedback through these anonymous surveys in a timely manner in order for the instructor to pass it along to the presenter.

Appropriate Journal Articles:

- A primary journal article is a research paper that describes a peer reviewed scientific study detailing authors' original observations and data. Your instructor may show you an example of what a primary journal article looks like in the first class. There are many reputable journals that publish primary journal article including but not limited to *Science*, *Nature*, *Nature Biotechnology*, *Cell*, *PLOS Biology*, *Proceedings of the National Academy of Science*, *Plant Cell*, *International Journal of Plant Genomics*, *Biochemistry*, *Cell Biology*, *Nature Genetics*, *Journal of Bacteriology*, *Applied and Environmental Microbiology*, *Journal of Biological Chemistry*, *Biophysical Journal*, *Cancer Research*, *Cancer Cell*, *Molecular Cancer Therapeutics* and *Molecular Pharmacology*. This is not an all-inclusive list of acceptable journals. There are many others that you might consult.
- The Scientist (<http://www.the-scientist.com/?articles.view/>) has short summaries of interesting new papers that may help you identify a paper of interest to you.
- Most of the above described journals and other reputed journals as well are available online through the Rutgers libraries website (<http://www.libraries.rutgers.edu/>).
- Please remember to choose a *primary* journal article. Review articles which do not contain primary data are not acceptable. If you're not sure how to distinguish primary articles from review articles, consult your instructor.
- You should choose an article that interests you and that you understand fully. If the paper is really interesting to you, you will find it easier to project enthusiasm during your presentation of the article to the class. If you don't understand everything in the article, first try to obtain necessary background literature (in books or in articles cited at the end of the paper). Then, if necessary, see your instructor to get help in comprehending the journal article in its entirety. In addition, most articles these days come with supplementary material/data that is not published but is made available online for the readers for better understanding of the paper: be sure to check that out as well.

Class Behavior:

Students must arrive to class on time. If too many students arrive late it is disruptive to rest of the class. So please be courteous to your fellow students. Please make sure your cell phones are turned off or silent during the class. Any misconduct will be dealt as per Rutgers University's code of student conduct found at <http://judicialaffairs.rutgers.edu/university-code-of-student-conduct>. Students are expected to abide by all Rutgers University regulations with regards to academic misconduct.

Academic Integrity:

Students are responsible for reading and complying with Rutgers University academic integrity policy. To view the Rutgers University's Academic Integrity Policy go to <http://academicintegrity.rutgers.edu/academic-integrity-policy>. The academic integrity/ honesty policies hold good for all kinds of in class and/or take home assignments. Plagiarism, cheating or other violations of Rutgers University's Academic Integrity Policy will be subject to appropriate penalty based on the infraction.

ACCOMODATIONS FOR STUDENTS WITH DISABILITIES

Please follow the procedures outlined at <https://ods.rutgers.edu/students/registration-form>. Full policies and procedures are at <https://ods.rutgers.edu/>

ACADEMIC INTEGRITY

The university's policy on Academic Integrity is available at <http://academicintegrity.rutgers.edu/academic-integrity-policy>. The principles of academic integrity require that a student:

- properly acknowledge and cite all use of the ideas, results, or words of others.
- properly acknowledge all contributors to a given piece of work.
- make sure that all work submitted as his or her own in a course or other academic activity is produced without the aid of impermissible materials or impermissible collaboration.
- obtain all data or results by ethical means and report them accurately without suppressing any results inconsistent with his or her interpretation or conclusions.
- treat all other students in an ethical manner, respecting their integrity and right to pursue their educational goals without interference. This requires that a student neither facilitate academic dishonesty by others nor obstruct their academic progress.
- uphold the canons of the ethical or professional code of the profession for which he or she is preparing.

Adherence to these principles is necessary in order to ensure that

- everyone is given proper credit for his or her ideas, words, results, and other scholarly accomplishments.
- all student work is fairly evaluated and no student has an inappropriate advantage over others.
- the academic and ethical development of all students is fostered.
- the reputation of the University for integrity in its teaching, research, and scholarship is maintained and enhanced.

Failure to uphold these principles of academic integrity threatens both the reputation of the University and the value of the degrees awarded to its students. Every member of the University community therefore bears a responsibility for ensuring that the highest standards of academic integrity are upheld.

STUDENT WELLNESS SERVICES

Just In Case Web App <http://codu.co/cee05e>

Access helpful mental health information and resources for yourself or a friend in a mental health crisis on your smartphone or tablet and easily contact CAPS or RUPD.

Counseling, ADAP & Psychiatric Services (CAPS)

(848) 932-7884 / 17 Senior Street, New Brunswick, NJ 08901/ www.rhscaps.rutgers.edu/

CAPS is a University mental health support service that includes counseling, alcohol and other drug assistance, and psychiatric services staffed by a team of professional within Rutgers Health services to support students' efforts to succeed at Rutgers University. CAPS offers a variety of services that include: individual therapy, group therapy and workshops, crisis intervention, referral to specialists in the community and consultation and collaboration with campus partners.

Violence Prevention & Victim Assistance (VPVA)

(848) 932-1181 / 3 Bartlett Street, New Brunswick, NJ 08901 / www.vpva.rutgers.edu/

The Office for Violence Prevention and Victim Assistance provides confidential crisis intervention, counseling and advocacy for victims of sexual and relationship violence and stalking to students, staff and faculty. To reach staff during office hours when the university is open or to reach an advocate after hours, call 848-932-1181.

Disability Services

(848) 445-6800 / Lucy Stone Hall, Suite A145, Livingston Campus, 54 Joyce Kilmer Avenue, Piscataway, NJ 08854 / <https://ods.rutgers.edu/>

Rutgers University welcomes students with disabilities into all of the University's educational programs. In order to receive consideration for reasonable accommodations, a student with a disability must contact the appropriate disability services office at the campus where you are officially enrolled, participate in an intake interview, and provide documentation: <https://ods.rutgers.edu/students/documentation-guidelines>. If the documentation supports your request for reasonable accommodations, your campus's disability services office will provide you with a Letter of Accommodations. Please share this letter with your instructors and discuss the accommodations with them as early in your courses as possible. To begin this process, please complete the Registration form on the ODS web site at: <https://ods.rutgers.edu/students/registration-form>.

Scarlet Listeners

(732) 247-5555 / <http://www.scarletlisteners.com/>

Free and confidential peer counseling and referral hotline, providing a comforting and supportive safe space.

DIVERSITY AND INCLUSION STATEMENT:

It is our intention that students of all backgrounds will be well served by this course. We will work to create an environment of inclusion which respects and affirms the inherent dignity, value, and uniqueness of all individuals, communities and perspectives. We are lucky to have a diverse university. Diverse voices and life experiences enhance the learning process and we welcome students to share their personal experiences. We will not tolerate disrespectful language or behavior against any individual or group. If you feel as though you have been disrespected or treated unfairly by the instructors or any other individual please let us know. You may speak with the instructors in person, over email or report anonymously using the feedback note box. You may also report bias to the Rutgers Diversity and Inclusion initiative using this link: <http://inclusion.rutgers.edu/report-bias-incident/>.