

11:126:401: Seminar in Biotechnology, Fall 2016

Section 01

Wednesday 3:55 – 5:15 pm

Foran Hall, Room 262

Instructor:

Dr. Sonia Arora

Room 291B, Foran Hall

848-932-6337

arora@aesop.rutgers.edu

Section 02

Wednesday 5:35 – 6:55 pm

Foran Hall, Room 362

Instructor:

Dr. Faith Belanger

Room 304, Foran Hall

848-932-6389

belanger@aesop.rutgers.edu

Section 03

Monday 5:35-6:55 pm

Foran Hall, Room 362

Instructor:

Dr. Faith Belanger

Room 304, Foran Hall

848-932-6389

belanger@aesop.rutgers.edu

Section 05

Thursday, 12:35-1:55 pm

Foran Hall, Room 262

Instructor:

Dr. Paul Meers

Room 272, Foran Hall

848-932-6230

meers@aesop.rutgers.edu

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and meetings; by the time textbooks are written, edited and published, much of the cutting edge information may be outdated.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 will 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:

- 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 electronic or hard copy of the paper you have chosen two weeks* before the scheduled presentation, so that he/she can review the selection for appropriateness. Your article must be approved by your instructor. Failure to do so will result in a loss of 15 percent points on your grade. (* only exception to two week notice policy is if you are the first person to present and you decide to do primary article- in this case you must get your article approved ASAP and before next week’s class).

- 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 one of the social, economic, ethical, and/or legal aspects of biotechnology. Alternatively, your second presentation can be based on a second primary journal article. If you are giving your second presentation on a general biotechnology topic or 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 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.
- You may bring your presentation on a USB drive or alternatively email the instructor with the power point before the class. Please arrive 5 minutes early in the class on the day of your presentation to allow appropriate time to upload your presentation before the class begins.
- 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”:

- 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.
- 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 within three weeks of attending the seminar and at least one week before the end of full semester classes.
- 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.
- The summary should be typed and organized as follows: Title of seminar, seminar speaker, date of seminar; 100-200 words 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:

- 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. Failure to provide notice or proper documentation will result in loss of 10 percent points from your grade.
- 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. If not, your grade will reflect this.
- Your instructor typically take notes of students that participate actively in most seminar, some seminars or not at all and assigns class participation points accordingly.

IV. Grading:

Your final grade will be calculated as follows:

Oral Presentations:	60% of total grade (30% each)
Outside Seminar Summaries:	20 % of total grade
Class Participation:	20% of total grade

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.

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.
- Most of the above described above journals and other reputed journals as well are available in the Chang library and online through the 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.

Classroom Behavior:

Students should arrive in the classroom on time. If too many students arrive late it is disruptive to rest of the class. So please be courteous to your fellow students. The use of cell phones, i pods, mp3 players etc. in the classroom is unacceptable. 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 <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 infarction.

Accommodations 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/>.