

Issues and Concepts in Biotechnology 11:126:110

Spring 2017

Thursdays, 12:35 – 1:55 pm (Section 1: Brasaemle) + 2:15 – 3:35 pm (Section 2: Meers)

Room 138A Foran Hall

Date	Topic	Speaker	Assigned Reading	Activity
Jan 19	Introduction to Bioethics	Brasaemle or Meers	None	Discussion
Jan 26	Bioethics	Paul Meers	Chapter 2	Discussion
Feb 2	Intellectual Property	Elysa Goldberg	Chapter 3	Discussion
Feb 9	Plant Biotechnology	Rong Di	Chapter 6	Group 1
Feb 16	Animal Biotechnology	Wendie Cohick	Chapter 7	Group 2
Feb 23	Public Perception of Biotechnology	Cara Cuite	Assignment	Group 3
Mar 2	Gene Therapy & Stem Cell Biology	Meers & Brasaemle	Chapter 11	Group 4
Mar 9	Biofuels and Bioconversion	Serpil Guran	None	Group 5
	SPRING BREAK			
Mar 23	Biotech and Pharma	Jason Simon	None	Group 6
Mar 30	Marine Biotechnology	Costantino Vetriani	Chapter 5	Group 7
Apr 6	Microbial Biotechnology	Aamani Rupakula	Chapter 9	Group 8
Apr 13	Aquaculture	Lee Kerkhof	Chapter 10	Group 9
Apr 20	Genetic Counseling	Jessica Joines	Paper is due!	Discussion
April 27	Computational Design of Proteins	Vikas Nanda	Chapter 4	Group 10

Assessment/Grades: Grades will be based on the following distribution for 100 points total:

40% Individual written project. A writing assignment requiring independent work will be chosen from a set of themes/questions that will be provided. Further details of the project will be given out in week 4 or 5.

40% Weekly quizzes. For 9 class periods, there will be a reading assignment from the required textbook *Introduction to Biotechnology, 3rd Edition, by W. J. Thieman and M. A. Palladino*. Although this textbook is relatively expensive to purchase new, there are two copies on reserve at Chang library that **can be checked out for free**, or the text **can be rented** for the semester from either Amazon or Barnes & Noble **for only \$21.23 (Amazon) or \$41.20 (B & N)**. For each reading assignment, there will be a short in-class quiz at the beginning of the class period to assess your familiarity with the material in the chapter. There will be no make-up quizzes, but the lowest quiz grade for the semester will not be included in calculating your course grade. *There will also be 1 homework assignment, which will be worth the same number of points as a weekly quiz.

20% Group Activity (15%) and Class Participation (5%). For one activity, you will work in a group of 3 students to research a topic and present a short skit or role-playing scenario to accompany the week's lecture. Each student group will be presented with an outline of the scenario and some ideas for where to begin the research 2 weeks prior to the date of the group presentation. Weekly class participation will also contribute to your grade (5%).

Absence Policy: Attendance will be taken during each class period. Students are expected to attend all classes; if you expect to miss one or two classes, please use the University absence reporting website <https://sims.rutgers.edu/ssra/> to indicate the date and reason for your absence. An email is automatically sent to us. These absences will be counted as unexcused absences. Absences will be excused only with appropriate documentation, such as a doctor's note for illness, obituary notice for a funeral of a family member, or similar document provided

to the professor for the course section. Studying for an exam, working at a job, attending a social gathering or vacation are not acceptable reasons for an excused absence.

Perfect attendance will be awarded 3 bonus points towards the final grade. 1 or 2 unexcused absences are allowed without penalty. A third unexcused absence will be penalized by subtracting 3 points from the final grade based on 100 points. Each successive absence will result in the loss of 3 additional points.

Course Web Site. Course materials, presentations, assignments and resources will be posted on the course web site on sakai.

Professors for the 2 sections:

Section 1: Dr. Dawn Brasaemle, 311A Food Science Building, 848-932-6524,

Brasaemle@AESOP.Rutgers.edu

Section 2: Dr. Paul Meers, 272 Foran Hall, 848-932-6230, Meers@aesop.rutgers.edu

Course objectives:

Students will -

1. learn basic approaches to biotechnology research and development, and the wide range of biotechnology applications.
2. gain an understanding of ethics and societal issues relevant to controversial applications of biotechnology.
3. gain oral and written communications skills to present technologies and express opinions.

University policy on academic conduct:

Plagiarism is a violation of the policy and is not permitted; use of unattributed or copied content in class assignments will result in failure of the assignment and may lead to failure of the course and suspension from the University.

Turnitin plagiarism detection software will be used to scan assignments for copied and improperly attributed material.

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.

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/>

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.