

Synopsis - Ethics and Issues in Microbiology 11:680:401

Course description:

Ethical and current issues in microbiology are discussed from the perspective of scientific and ethical conduct. Case studies will be analyzed. The course is targeted for students in their junior/senior year majoring microbiology and provides a fundamental understanding of a code of ethics for microbiologists, including ethical conduct, scientific integrity and the dignity of the profession and practice of microbiology.

Credits: 1

Prerequisites: 11:680:390 Open to microbiology majors and to others by special permission.

General topic outline:

WEEK	TOPIC
1	Course Overview; Standard Practices; Who makes the rules?
2	Ethics and the Scientist; Responsible Conduct of Research; Academic Integrity
3	Mentoring
4	Authorship & Peer Review
5	Managing Competing Interests
6	Scientists on Trial
7	Collaborative Research
8	Ownership of Data; Intellectual property
SPRING RECESS	
9	Genetic Technology and Scientific Integrity
10	Scientific Record Keeping
11	Mutant Flu
12	Dual Use Revisited
13	Student presentations
14	Student presentations

Student Learning Goals:

1. Understand expectations of academic/scientific integrity and responsible conduct of research.
2. Formulate and support personal positions on ethical issues of science relevant to the study of microbiology and related fields.

Assignments:

Position Paper (25%) 1-2 page paper stating and supporting your personal position on one of the following ethical dilemmas discussed in class:

- Uncensored publication of dual use research
- Accountability and fraud
- Accountability and public safety

Book review & Presentation (35%) – A brief written review of one of the following books combined with a short presentation to the class.

Grading is based on:

I. Attendance (10%) - Attendance is compulsory

II. Class participation (30%): - participation in discussion in class. Grading includes the significance of the discussion and of any materials introduced. Note that comments of “I agree” do not merit participation points.

III. Position Paper (25%)

IV. Book review & Presentation (35%)