

**Department:** Ecology and Evolutionary Biology

**Course No.:** 3520W

**Credits:** 3

**Title:** Ethical Perspectives in Biological Research

**Contact:** Charles Henry

**WQ:** Writing

**Catalog Copy:**

BIOL 3520W. Ethical Perspectives in Biological Research and Technology  
Second semester. Three credits. Prerequisite: BIOL 1107, 1108, or 1110. Taigen  
Ethical and policy issues arising from advances in biological research and technology, including  
topics in ecology, molecular biology, and physiology

**Course Information:**

The topics covered in this course (Ethical Perspectives in Biological Research and Technology) lend themselves readily to an intensive writing format, both in terms of learning experiences and in terms of student evaluation. The papers that students prepared last spring in the special topics offering of this course were almost uniformly of high quality and are available for review by this committee.

**Meets Goals of Gen Ed.:**

The goals of this course are to examine the ways in which advances in technology and research in the life sciences challenge our moral balance and relate to both institutional policies and personal decision-making. The scope of the course will be very broad in a biological sense, including issues and examples ranging from environmental biology to genetics to physiology. The subject material in this course is not covered in our current course offerings. Specific topics include: history of ethical issues in biology, genetic testing and public health legislation, the ethics of using genetic tests for ancestry assessments, privacy issues of testing for genetic disorders, surgical gender assignment in intersex infants, gender testing for athletic competition, HPV vaccination policy, history of RU-486 policy, use of DNA microarray technologies in human reproduction, "gene doping" for muscle development, ethics of genetically modified foods and transgenic animals, ethics of biodiversity preservation, and environmental ethics and management strategies for introduced species. Discussion of each topic will begin with an understanding of the technology (both where it is now and where it is going), leading ultimately to the questions of why this becomes an ethical problem and how such problems have been addressed through individual decision-making and public research policies. The course will also include a discussion about individual responsibility in the conduct of science, including ethical behavior in biological research and scientific communication, thereby conforming to a recent

directive issued by the National Science Foundation regarding instruction in scientific conduct (Responsible and Ethical Conduct of Research – RCR). This course will contribute to appropriate training in the responsible and ethical conduct of research to undergraduate students.

### W Criteria:

In addition to writing assignments for each class, students are required to prepare a 15 page term paper that will account for 30% of their final grade in the course. Students will be required to submit a first draft of their work, which will be evaluated by the instructor and returned to them for revision and correction. Students will also be required to take a midterm exam (30%) and a final exam (30%). The final exam includes a written take-home portion that students will submit on the day of the exam. The remaining 10% of the final grade is determined by student participation.

**Role of Graduate Students:** Advanced graduate students may serve as primary instructors of certain English courses. Their major advisor will normally be their primary supervisor, responsible for training them as teachers of the course and overseeing their work. If for some reason the major advisor is not available or, as will only rarely happen, lacks expertise in the course, he or she is responsible for finding a competent faculty replacement. When the graduate student first teaches the course, the supervisor will approve the syllabus, tests, and writing assignments, will sit in on at least one class session, and will review the grade distribution. If the graduate student teaches the course subsequently, supervision will naturally be more relaxed, but the advisor will continue to oversee the instructor's performance.

If courses taught by advanced graduate students are also “W” courses, additional supervision of the “W” component will be provided for all graduate instructors the first year by a faculty expert in the teaching of writing. The “W” supervisor will receive a syllabus from all graduate students teaching “W” courses. Normally this supervisor will be the Associate Director of the Writing Center. When he or she is not available, the Head will designate a replacement in consultation with the Director of Freshman English. After a graduate student's first year of teaching “W” courses, full supervisory responsibility will revert to the major advisor.