

Course: BIO 50 General Biology

1. Date of Application: December 5th, 2011
2. Name of Proposer: Rebecca Jabbour
3. Name of Department/Program housing the course: Biology
4. Name of Chair/Program Director: Carla Bossard
5. How often is this course taught: yearly
6. Course Prerequisites (if any): none
7. Unit Value of the Course: 1
8. Normal Class Size: 40
9. Number of Sections expected to be taught in Fall 2012: 0
10. Number of Sections expected to be taught in Spring 2013: 1
11. Is the course designed for and/or appropriate for first-year students: yes
12. Relevant Working Goal(s): Scientific Understanding
13. Chair will oversee submission of student work:
14. Chair will oversee instructor participation in Norming and Assessment exercises: yes
15. Teaching: how the course will guide students to achieve the learning outcomes: yes
"General Biology (BIOL 050/051) will cover the three Scientific Understanding learning outcomes through lecture, readings, discussion, and laboratory exercises.

Learning Outcome #1 will be met by covering the topics on the BIOL 050 schedule (part of the syllabus) in the lecture sections. These topics include major concepts and theories that explain the natural world, such as those related to cells, genetics, evolution, and ecology. In addition, the process of science will be emphasized. Most content will be covered via lecture by the professor and via assigned textbook readings. Discussion and video clips may also be incorporated.

Learning Outcome #2 will be met by BIOL 051 laboratory sections. Each student attends a BIOL 051 section for three hours per week. In their lab sections, students will actively engage with the process of science by collecting, analyzing, and interpreting data related to weekly topics such as cell respiration, population genetics, and ecology.

Learning Outcome #3 will be met in the lecture section by student-centered discussion related to current social and ethical issues arising from developments in biology. Examples are debates surrounding the implications of personal genomics and of various approaches to wildlife conservation. Discussions will be based on selected readings from the textbook and from outside sources, including current news stories.

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"Learning Outcome #1 will be assessed through two Midterms and a Final Paper that allow students to demonstrate their understanding of the biological concepts covered during each third of the course. Midterms will consist of multiple choice and short answer questions. Short answer questions are answered with a brief paragraph, requiring students to demonstrate greater understanding than is required by multiple choice questions. The Final Paper, a 3-4 page (single-spaced) research paper, will focus on an organism of the student's choice and will reflect the student's understanding of topics from the last third of the class: ecology, ecosystems, and conservation. These topics lend themselves well to treatment and synthesis in a more integrated format than a midterm.

Learning Outcome #2 will be assessed through BIOL 051 lab quizzes. Quizzes will test the

student's understanding of the observations, analyses, and interpretations they made during the lab exercises.

Learning Outcome #3 will be assessed through a one-page (single-spaced) Social/Ethical Issues Paper. The student will thoughtfully consider social and ethical issues that arise from a recent development in biological science.

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