BIOL 2100

Division: Natural Science and Mathematics
Department: Biology
Course: BIOL 2100
Title: Honors Biology
Catalog Description:

This course is a study of biological thought. It is approached through the reading and discussion of current and classic literature in biology and through interaction with professions in the life sciences.

General Education Requirements: Individual Choice
Semesters Offered: Spring
Credit/Time Requirement: Credit: 1; Lecture: 1; Lab: 0
Clock/Hour Requirements: 0
Offered for Non-Credit: No
Prerequisites: Any general education or majors biology class.

Corequisites: Any general education or majors biology class.

Justification:

One of the goals of the Honors Program is to have students learn of the central theme of various fields of study. The central theme of the life science is biological evolution. Honors Biology makes it possible for majors and nonmajors to study this theme in more detail and learn of its applications in various aspects of the specialties they are studying within and preparing for careers in and general application in the world today. This one credit course also makes it possible for them to complete an honors biology credit while completing heavy credit requirements within their majors.

Student Learning Outcomes:

Upon successful completion of this course, students will:

- know classic and current topics in the life sciences through readings, discussions, class projects, and assignments requiring thought, initiative, and creativity, and various interactions with professionals in this and related fields
- know of career opportunities within the life sciences
- know about opportunities for nonprofessional involvement in the life sciences through volunteer work, hobbies, and nonprofessional organizations.

Content:

This course will include:

- critical thinking and science
- the foundation work of those who preceded Darwin
    - Linneaus
    - Buffon
    - Hutton
    - Lamarck
    - Cuvier
    - Malthus
- the work of Charles Darwin
    - his biography
    - *On the Origin of Species*
        - heritable variation
        - competition
        - natural selection
        - adaptation
- early life
- the genetics of change
- extinction
- coevolution
- evolutionary medicine
- the evolution of sex
- the evolution of man
- religion and science.

General Education Outcomes:

1) Read effectively, constructively, and critically.

Students read writings on organic evolution and related topics and discuss their relevance to issues in the world today. Discussion questions are designed to elicit constructive and critical responses.

2) Write clearly, informatively, and persuasively.

Instruction on writing is given. Assignments throughout the semester include essay responses that are critiqued and graded.

3) Speak effectively in a variety of contexts.

Students are required to retrieve information from a variety of sources to prepare their presentations and discussion questions. This information must be evaluated, interpreted, and delivered as an oral presentation by the student.

4) Retrieve, evaluate, interpret, and deliver information through a variety of traditional and electronic media.

Students are required to retrieve information from a variety of sources to prepare their presentations and discussion questions. This information must be evaluated, interpreted, and delivered by the student.

7) Apply scientific reasoning to a variety of contexts.

The scientific method is taught and discussed in the context of the topics covered.

Key Performance Indicators:

- brief short answer quizzes are given in class: 30%-40% of the final grade
- class presentation and discussion: 10%-20% of the final grade
- homework assignment such as a letter of introduction, a pretest, and weekly preparation for class: 30%-40% of the final grade

Representative Text and/or Supplies:

- Charles Darwin, *On the Origin of Species. A Facsimile of the First Edition,* 1964, Harvard University Press, Cambridge Massachusetts.
- Carl Zimmer, *Evolution: The Triumph of an Idea,* 2001, Harper Collins, New York.

Optimum Class Size: 24
Maximum Class Size: 24

Signatures:

I hereby submit this course syllabus:

Allan Stevens, , Professor

I hereby find this course consistent with the goals and resources of the Biology Department:

Allan Stevens, , Professor, Chair

I hereby find this course consistent with the goals and resources of the Natural Science and Mathematics Division:

Dan Black, EdD, Associate Professor, Dean

I have discussed the need for library resources related to this class with the person submitting the syllabus:

Lynn Anderson, MLIS, Technical Services Librarian (Main Campus)

Michelle Olsen, MLS, Campus Librarian (Richfield Campus)