



BIOL 1015

Division: Natural Science and Mathematics

Department: Biology

Course: BIOL 1015

Title: General Biology Laboratory

Catalog Description:

The general biology laboratory component allows for student application of the principles learned in general biology lecture with an emphasis on investigative learning. This component (BIOL 1015) is optional, but in order to count as a laboratory experience, it must be taken concurrently with BIOL 1010.

General Education Requirements: N/A

Semesters Offered: Fall, Spring, Summer

Credit/Time Requirement: Credit: 1; Lecture: 0; Lab: 2

Clock/Hour Requirements: 0

Offered for Non-Credit: No

Prerequisites: N/A

Corequisites: The laboratory BIO 1015 must be taken concurrently with the lecture BIO 1010.

Justification:

The General Biology Laboratory (BIOL 1015) satisfies the science laboratory GE requirement for Snow College. Some majors at the four year colleges and universities require both the laboratory and the general biology lecture.

Student Learning Outcomes:

Upon successful completion of this course, students will:

- know the essential qualities and key processes commonly found in life forms
- have begun to understand the diversity of living organisms and their myriad interrelationships in the biological world
- have some understanding of the role that biology plays in modern life as well as past history
- be able to use microscopes, computers, and other commonly available lab equipment and supplies.

Content:

This course will include:

- scientific method
- chemicals of life
- introduction to microscopy
- pH, enzymes and membranes
- photosynthesis (and respiration)

- mitosis/meiosis
- development/X-linkage
- Mendelian genetics (dihybrid)
- transformation
- DNA fingerprinting
- systematics/bacteria
- protists/fungi
- plants
- animals

General Education Outcomes:

1) Read effectively, constructively, and critically.

Students read the text and laboratory manual throughout the course. Lab reports include evaluations on synthesis and critical thinking processes.

2) Write clearly, informatively, and persuasively.

Lab reports include writing components.

7) Apply scientific reasoning to a variety of contexts.

Students will demonstrate scientific reasoning throughout the various topics considered in course content for the laboratory in their responses to lab reports, quizzes, discussions, etc.

Key Performance Indicators:

- There is a departmental final exam for the laboratory course. There is no passing percentage cut off. The exam score should be the equivalent of two lab scores including quizzes, if any.
- Students cannot miss more than two labs. Students missing more than two laboratories will fail the course.

Representative Text and/or Supplies:

- Papenfuss, Breakwell, Stevens, Sorensen, and Parnell, *Biology 1015 Laboratory Manual*, current edition.

Optimum Class Size: 16

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)