

BSCI161: Principles of Ecology and Evolution Laboratory

Course Description:

BSCI161 guides students to investigate how evolution works, what methods scientists use to understand it, how organisms interact with each other and their environment, and the scientific framework by which we understand these ideas. This laboratory course complements the lecture-based BSCI160 course while providing students a foundation in the scientific and communication skills used to develop scientific knowledge.

Prerequisites:

Must have math eligibility of MATH120 or higher
Prerequisite or Co-requisite: BSCI160

Course Credits: 1

Recommended: For Science majors.

Textbooks:

Lab Manual: *161 Biological Sciences*. Leo Shapiro and Hans Lemke, Eds. Hayden-McNeil Publishing

NOTE: Students are required to have a new, current lab manual. Used or previous editions are not acceptable.

SimUText subscription: included with your lab manual

Major Topics Covered in BSCI161 Include the Following:

1. Experiments with Natural Selection
2. Mendel, Meiosis, and Graphing
3. Population Genetics
4. Tree Thinking
5. Advanced and Applied Tree Thinking
6. Data Analysis and Presentation
7. Inquiry I: Research Techniques
8. Inquiry II: Limiting Nutrients and Designing the Experiment
9. Inquiry III: Setting up the Experiment
10. Inquiry IV: Data Collection and Analysis and Museum Assignment
11. Measuring Biodiversity
12. Inquiry Research Report
13. Student Presentations