



## BIO 235: Fundamentals of Ecology

This is an introduction to the principles of ecology, including the interaction of abiotic and biotic components of ecosystems, population biology and interactions, and the effects of human intervention. Emphasis is placed on conducting and communicating research in ecology. This course is intended for students in the life sciences AS program. Some labs are field trips. Prerequisite: MTH 119 or MTH 152, or MTH 172; Pre or co-requisite: BIO 121. Three lecture hours and three laboratory hours per week. Instructional Support Fee applies. Gen. Ed. Competencies Met: Scientific Reasoning and Discovery.

### Course Student Learning Outcomes

After completion of this course, students will be able to 1. Describe and discuss the essential concepts of ecology 2. Explain the process of ecological change both in the long term (evolutionary change) and in the short term (succession) 3. Utilize the tools of science through ecological field study focused on local ecosystems in Southeastern Massachusetts 4. Analyze data, modeling the way in which scientists handle data, including the use of statistical methods and computers for analysis of data sets. 5. Compile scientific findings using the primary methods by which scientists communicate with their peers including composing original research papers, oral, and poster presentations.

**Credits:** 4

**Program:** Biology