BIOL 3370L: Ecology Laboratory

1 Credit Hours

Concurrent: BIOL 3370

In laboratory and field activities students will utilize inquiry-based activities that emphasize environmental sampling procedures and statistical analysis of data to explore the role of variability and uncertainty in scientific decision-making as related to ecological processes.

BIOL 3371K: Freshwater Ecology

4 Credit Hours

Prerequisite: (BIOL 1107 and BIOL 1107L) and (BIOL 1108 and BIOL 1108L)

Students will develop a comprehensive and integrated understanding of physical, chemical, and biological processes occurring in lakes, streams, and wetlands. Particular emphasis will be placed on the ecology of aquatic organisms and the structure and function of freshwater communities and ecosystems that they inhabit. Laboratory exercises will use the scientific method to investigate and contrast basic ecological processes operating in various systems.

BIOL 3372K: Aquatic Biodiversity

4 Credit Hours

Prerequisite: BIOL 3370 and BIOL 3370L or permission of the instructor.

This course is an introduction to the major plant and animal taxa found in aquatic ecosystems. Students will develop field and laboratory identification and collection skills while examining major ecological and biogeographical factors influencing distribution and abundance of aquatic organisms. Notes: A series of three weekend field trips are required.

BIOL 3373K: Methods in Aquatic Ecology

4 Credit Hours

Prerequisite: (BIOL 1108 and BIOL 1108L) and STAT 3125

This course provides students experience in design and execution of studies in aquatic ecology. Students will gain experience with field and lab techniques to conduct aquatic research in various aquatic assessments and wetlands delineation. Students will learn techniques for sampling fish, aquatic invertebrates and aquatic plants as well as techniques in aquatic toxicology. Field experiences are an integral part of the course.