



Common Course Number: BSC-2011

Course Title: Principles of Biology 2

Catalog Course Description:

This is the second in a sequence of two courses that deals with the principles of modern biology. It covers organic evolution, phylogeny, biological diversity, overviews of plant and animal form and function, behavior, as well as population, community, and ecosystem ecology.

Credit Hours: 3

Prerequisites: BSC 2010, BSC 2010L

Pre- or Corequisites: BSC 2011 L

Course Competencies:

Competency 1: Upon successful completion of this course, the student will demonstrate knowledge of the mechanisms of micro- and macroevolution by:

- a. explaining the central role of evolution in modern biology.
- b. describing the development of the Darwinian view of evolution.
- c. identifying the steps of natural selection and discussing its role as the major agent of evolution.
- d. analyzing the evidence that has accumulated since Darwin's time in support of the theory of evolution.
- e. identifying the population as the theater of evolution, and explaining the role of the Hardy-Weinberg equilibrium as a baseline for understanding microevolution, and the nature of the agents of microevolution that operate within populations.
- f. distinguishing the modes of natural selection.
- g. discussing the various species concepts and the process of speciation.
- h. analyzing the major evolutionary events and trends that have shaped life on Earth throughout its history.