C-ID Descriptor
Organismal Biology

Descriptor Details

- **Descriptor Title**: Organismal Biology
- **C-ID Number**: 140
- **Units**: 4.0
- **Date of Last Revision**: 10/12/2017 11:43:41 PM GMT+0000

General Description

This course, intended for biology majors, is a survey of the basic biology and diversity of unicellular and multicellular organisms. It emphasizes general biological principles, classification, structure, function and evolutionary adaptations of organisms (including plants, fungi, animals, and unicellar organisms)-to their environments.

Prerequisites

Eligible for college-level math (C-ID MATH 110, 120, 130, 140, 150, 151 OR any other course with Intermediate Algebra as a prerequisite)

Corequisites

None

Advisories

Preparation: Completed C-ID BIOL 190; eligible for English Composition (C-ID ENGL 100)

Content

- Evolutionary theory, including mechanisms of diversification of life and evidence for evolution
- Phylogeny of life on earth (including plants, fungi, animals, and unicellar organisms)
- Anatomy, Physiology, Organismal Life Cycles and Development of living organisms (including plants, fungi, animals, and unicellar organisms)
- Interaction of Organisms with the Environment (including plants, fungi, animals, and unicellar organisms)

Lab Activities

The laboratory component must include greater than 80% hands-on activities that support the learning goals of the course Laboratory content must be considered when matching courses to this descriptor. Field trips are appropriate for this course.

Laboratory includes

A. Microscopic, gross comparative anatomy, and dissection of organisms from representative phyla.
B. Observations of the functional morphology of representative phyla.
C. Observations of the physiology of representative organisms.
D. Study of developmental stages of representative organisms.

Objectives

At the conclusion of this course, the student should be able to:

1. Explain the essential elements of life, major hypotheses for life's history, and mechanisms for the diversification of life.
2. Compare and contrast the development, life cycles, anatomical and physiological characteristics of major taxa of organisms
3. Evaluate the relationships of organisms to each other and their environments.
4. Describe, identify key characteristics and classify representative specimens down to representative phyla.
5. Apply the processes of scientific inquiry, phylogenetic analysis, and experimental design to the diversity of organisms.

Evaluation Methods

A variety of assessment techniques that may include examinations, laboratory reports, laboratory practicals, projects, and papers.

Textbooks

A college level textbook and laboratory manual supporting the learning objectives of this course and current within 5 years must be considered when matching courses to this descriptor. Campbell, Raven , Mader.