

## Master Syllabus

### BIO 1211 - General Biology II

**Division:** Science, Mathematics and Engineering

**Department:** Biology

**Credit Hour Total:** 4.0

**Lecture Hrs:** 3.0 **Lab Hrs:** 2.0

**Prerequisite(s):** BIO 1111

**Date Revised:** June 2014

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### Course Description:

This course is designed as the second in a series of two general education science courses. Covers evolution, biodiversity and ecology. Three classroom, two lab hours per week.

### General Education Outcomes:

- Oral Communication Competency
- Written Communication Competency
- Critical Thinking/Problem Solving Competency
- Values/Citizenship/Community Competency
- Information Literacy Competency

### Course Outcomes:

#### Mechanisms of Evolution

Identify and explain mechanisms of evolution within populations; explain origin of species and modes of speciation; describe the major evolutionary events related to history of life on Earth; and discuss evidence of evolution.

**Assessment Method:** Locally developed exams

**Performance Criteria:** Accumulate a minimum total of 60% of the available points in the course (Lecture exams, Quizzes, and Lab Tests)

#### Evolution of Biodiversity

Describe and discuss the evolutionary history of biological diversity between and within the domains Bacteria, Archaea, and Eukarya.

**Assessment Method:** Locally developed exams

**Performance Criteria:** Accumulate a minimum total of 60% of the available points in the course (Lecture exams, Quizzes, and Lab Tests)

#### Phylogenetics and Systematics

Interpret and discuss evolutionary relationships depicted in phylogenies; explain the relationship of phylogeny to taxonomy; and examine the role of evolution as the major unifying theme of biology.

**Assessment Method:** Locally developed exams

**Performance Criteria:** Accumulate a minimum total of 60% of the available points in the course (Lecture exams, Quizzes, and Lab Tests)

#### Ecology and Environmental Biology

Describe and discuss the interrelationships which exist within and between populations, communities and ecosystems; examine human impact on the environment and assess ecological effects.

**Assessment Method:** Locally developed exams

**Performance Criteria:** Accumulate a minimum total of 60% of the available points in the course (Lecture exams, Quizzes, and Lab Tests)

### Outline:

Evolution of Populations Speciation Paleontology Phylogeny and Systematics Evolution of Biodiversity Ecology and Environmental Biology