Sinclair Community College
444 E. Third St.
Dayton, OH 45402

Master Syllabus

BIO 1272 - Principles of Biology II

Division: Science, Mathematics and Engineering

Department: Biology

Credit Hour Total: 5.0 **Lecture Hrs:** 3.0 **Lab Hrs:** 6.0

Prerequisite(s): BIO 1171

Date Revised: June 2014

Course Description:

The second course of a two-semester university-parallel sequence for biology and science majors. Topics include Darwinian evolution, evolution of populations, origin of species, history of life on Earth, phylogeny and systematics, prokaryotes, protists, plants, fungi, animals and ecology. Three classroom, six lab hours per week.

General Education Outcomes:

- Oral Communication Competency
- Written Communication Competency
- Critical Thinking/Problem Solving Competency
- Computer Literacy Competency
- Information Literacy Competency

Course Outcomes:

Ecology
Discuss the fundamentals of organismal, population, community, ecosystem, landscape, and/or global ecology.

Assessment Method: Locally developed exams
Performance Criteria: Accumulate a total of 60% of the available points in the course (Lecture exams, Quizzes, and Lab Tests)

Biodiversity
Discuss the diversity of life and its evolutionary relationships, describe the phylogeny and taxonomy of prokaryotes, protists, plants, fungi, and animals, and explain their principle structural and functional characterisitcs.

Assessment Method: Locally developed exams
Performance Criteria: Accumulate a total of 60% of the available points in the course (Lecture exams, Quizzes, and Lab Tests)

Evolution
Appraise the role of modern evolutionary theory as the major unifying theme of all biological sciences, relate the principles of population genetics to the process of speciation, and relate geological time to the major evolutionary events that demonstrate macroevolutionary trends in the history of life on Earth.

Assessment Method: Locally developed exams
Performance Criteria: Accumulate a total of 60% of the available points in the course (Lecture exams, Quizzes, and Lab Tests)

Outline:

Darwinian evolutionEvolution of populationsOrigin of speciesHistory of life on EarthPhylogeny and systematicsBacteria and ArchaeaProtistsPlantsFungiInvertebrate animalsVertebrate animalsIntroduction to ecology