

MINNESOTA WEST COMMUNITY & TECHNICAL COLLEGE

COURSE OUTLINE

DEPT. BIOL

COURSE NUMBER:1111

NUMBER OF CREDITS: 4

Lecture: 3 Lab: 1 OJT: 0

Course Title:
Principles of Biology II

Catalog Description:
Principles of Biology II examines biological diversity and the basic mechanisms and concepts in organismal biology including a survey of life forms (viruses, bacteria, protists, fungi, plants and animals.) Additional topics will include taxonomy, classification, structure and function of the major groups of plants and animals. This course includes a lab.

Prerequisites or Necessary Entry Skills/Knowledge:
BIOL 1110 Principles of Biology I

FULFILLS MN TRANSFER CURRICULUM AREA(S) :

Goal 3: Natural Sciences: X by meeting the following competencies:

- Demonstrate understanding of scientific theories.
- Formulate and test hypotheses by performing laboratory, simulation, or field experiments in at least two of the natural science disciplines. One of these experimental components should develop, in greater depth, students' laboratory experience in the collection of data, its statistical and graphical analysis, and an appreciation of its sources of error and uncertainty.
- Communicate their experimental findings, analyses, and interpretations both orally and in writing.
- Evaluate societal issues from a natural science perspective, ask questions about the evidence presented, and make informed judgments about science-related topics and policies.

Topics to be Covered
Evolutionary relationships
Viruses
Bacteria
Protists
Fungi
Photosynthesis
Plant diversity, growth and development, nutrition and transport, and reproduction
Animal diversity, growth and development, nutrition, reproduction, and behavior
Ecology

Student Learning Outcomes
Compare and contrast the different domains and kingdoms of life by utilizing phylogenetic trees
Outline the relationships between structure and function of each of the groups of organisms (viruses, bacteria, protists, fungi, plants, and animals)
List and describe the features of viruses and bacteria.
List and describe the features of protists and fungi.
Examine and demonstrate knowledge of the processes of photosynthesis
Summarize plant diversity, growth, development, reproduction, and nutrition
Summarize animal diversity, growth, development, reproduction, nutrition, and behaviors
Identify ecological relationships between populations of organisms and their environment

Is this course part of a transfer pathway: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>

Revised Date: 6/2021