

MINNESOTA WEST COMMUNITY & TECHNICAL COLLEGE

COURSE OUTLINE

DEPT. BIOL

COURSE NUMBER: 2230

NUMBER OF CREDITS: 4

Lecture: 3 Lab: 1 OJT: 0

Course Title:
Plant Biology

Catalog Description:
Plant Biology covers the fundamental concepts of botany, including plant diversity, taxonomy, morphology, physiology, development, and reproduction. Other topics which will be covered include: viruses, bacteria, and fungi. Laboratory exercises deal with plant, bacteria, and fungi structure and function.

Prerequisites or Necessary Entry Skills/Knowledge:
BIOL 1110

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
General concepts of plant biology in order to advance to a higher course level of botany.
Plant biology terminology to read and present information from current science periodicals and the world wide web.
Basic concepts of photosynthesis.
Features of bacteria, viruses, protists, and fungi.
Structure and function of seedless and seed plants.
Growth differentiation and reproduction in plants.
Structure and function of plant hormones.

Student Learning Outcomes
Recall concepts related to the life cycle of prokaryotes, protists, algae, and nonvascular plants.
Read about how plants colonized land.
Apply plant science concepts.
Examine vascular plant structure, growth, and development.
Compare primary and secondary plant growth.
Analyze resource acquisition and transport in vascular plants.
Examine seed plant reproduction.
Research plant responses to internal and external signals.

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

Revised Date: 6/2021