
SECTION HEADING

BIOL 2230: Plant Biology

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.

Credits

4

Prerequisite

BIOL 1110

Corequisite

None

Topics to be Covered

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

Learning Outcomes

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

Credit Details

Lecture: 3

Lab: 1

OJT: 0

MnTC Goal Area(s): Goal Area 03 - Natural Sciences

Minnesota Transfer Curriculum Goal Area(s) and Competencies

Goal Area 03: Natural Sciences

1. Demonstrate understanding of scientific theories.
2. 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.
3. Communicate their experimental findings, analyses, and interpretations both orally and in writing.
4. Evaluate societal issues from a natural science perspective, ask questions about the evidence presented, and make informed judgments about science-related topics and policies.