A. Course Description

Credits: 5

Prerequisites:

- BIOL 111 General Biology I AND
- BIOL 112 General Biology II AND
- CHEM 111 General Chemistry I AND
- CHEM 112 General Chemistry II AND
- MATH 115 College Algebra

OR

- BIOL 111 General Biology I AND
- BIOL 112 General Biology II AND
- CHEM 111 General Chemistry I AND
- CHEM 112 General Chemistry II AND
- MATH 120 Precalculus

Lab Hours/ Weeks: None

Corequisites: None

Lecture Hours/ Week :

MnTC Goals: Goal LS - Upper Division Liberal Studies, Goal EL - General Education/Liberal Studies Elect.

This course covers plant physiology across the range of organisms studied by botanists, including plants, algae, and photosynthetic bacteria, including the structural and biochemical features that are characteristic of the different taxonomic groups and how these features affect the distribution and abundance of the organisms. The content and methods of current research in plant physiology are emphasized. Lab activities include laboratory and field investigations. Intended for biology majors.


C. Outline of Major Content Areas:

See Course Description for major content areas.

D. Learning Outcomes (General)

1. Apply this experience with research methods in plant physiology at the level necessary for success in senior undergraduate research.
2. Demonstrate quantitative reasoning skills and competency with arithmetic, algebra, and statistics at a level appropriate for graduates of a bachelor's degree program in biology.
3. Design, propose, conduct, interpret, and present the results of an independent laboratory or field experiment in this subject area.
4. Explain and apply scientific knowledge in plant physiology, both theoretical and experimental, at the upper division level.
5. Read and interpret primary scientific literature in plant physiology.
6. Recall, explain and apply the concepts, knowledge and vocabulary of plant physiology at the level necessary for success in graduate study in this field.

E. Learning Outcomes (MN Transfer Curriculum)
Goal LS - Upper Division Liberal Studies
   None
Goal EL - General Education/Liberal Studies Elect.
   None

G. Special Information

Note: Enrollment limited to Biology and Life Science Teaching majors only, except by instructor permission. First day attendance required except by instructor permission.