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 208 Applied Calculus

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 115 College Algebra AND
STAT 201 Statistics I

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 the science of evolutionary biology, including population genetics, microevolution, speciation, phylogenetics and macroevolution. The content and methods of modern research in evolutionary biology are emphasized; student read primary source scientific literature. Lab activities include field investigations, lab experiments, and computer modeling. Intended for biology, environmental science and life sciences teaching 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 evolutionary biology at the level necessary for success in senior undergraduate research.
2. Demonstrate quantitative reasoning skills and competency with 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 evolutionary biology, both theoretical and experimental, at the upper division level.
5. Read and interpret primary scientific literature in evolutionary biology.
6. Recall, explain and apply the concepts, knowledge and vocabulary of evolutionary biology 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, Environmental Science and Life Science Teaching majors only, except by instructor permission. First day attendance required except by instructor permission.