Faculty members are required to have the outline submitted to the Academic Affairs Office. The course outline is the form used for approval of new courses by the Academic Affairs and Standards Council.

**DEPT.** Biology  
**COURSE NUMBER:** 2100

**NUMBER OF CREDITS:** 3  
Lecture: 2  
Lab: 1

### Course Title:
Ecology

### Catalog Description:
Ecology introduces the student to the study of inter-relationships between organisms and their environment. Topics include fundamental principles of ecology at the levels of individual, population, community, and ecosystem, as well as flow of energy, organism-level interactions, and community ecology with an emphasis on applied ecology. Field and laboratory activities will support selected lecture topics. **Prerequisite:** BIOL 1110.

### FULFILLS MN TRANSFER CURRICULUM AREA(S) *(Leave blank if not applicable)*

- **Goal 1:** Communication: blank by meeting the following competencies:
- **Goal 2:** Critical Thinking: blank by meeting the following competencies:
- **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.
- **Goal 4:** Mathematics/Logical Reasoning: blank by meeting the following competencies:
- **Goal 5:** History and the Social and Behavioral Sciences: blank by meeting the following competencies:
- **Goal 6:** The Humanities and Fine Arts: blank by meeting the following competencies:
Goal 7: Human Diversity: _____ by meeting the following competencies:

Goal 8: Global Perspective: _____ by meeting the following competencies:

Goal 9: Ethical and Civic Responsibility: _____ by meeting the following competencies:

Goal 10: People and the Environment: _____ by meeting the following competencies:

**Prerequisites or Necessary Entry Skills/Knowledge:**

| BIOL 1110, Principles of Biology I |

**Topics to be Covered (General)**

Topics covered will include study of the historic development and fundamental principles of ecology at the levels of individual, population, community, and ecosystem, as well as flow of energy and materials, organism-level interactions, growth and evolution of populations, and community ecology.

**Student Learning Outcomes**

- Describe and contrast ecological principles.
- Compare and contrast the inter-related functions of the biotic and abiotic components of an ecosystem.
- Demonstrate and differentiate normal ecological functions.
- Demonstrate and differentiate abnormal and or perturbed ecological functions.
- Describe and properly use ecological terminology as it applies to the study of ecology.
- Demonstrate the historical development of ecological principles.

**Is this course part of a transfer pathway:** Yes [ ] No [X]  

Revised 11/19