

**Fond du Lac Tribal and Community College  
COURSE OUTLINE FORM**

Updated 9/23/14

Please return this form to the college vice president of academic affairs and the chairperson of the Academic Affairs and Standards Council (AASC)

1. Prepared by: \_\_\_\_\_

2. Date submitted: \_\_\_\_\_

3. Date approved: \_\_\_\_\_ Date revised 10/14/14

4. Department/discipline: Biology

5. Department(s) endorsement(s): \_\_\_\_\_  
(Signatures of the person(s) providing the endorsement are required.)

6. Course Title: Principles of Ecology  
Abbreviated course title (25 characters or less): \_\_\_\_\_

7. Course Designator: BIOL 8. Course Level: 1XXX 9. 2050

10. Number of Credits: Lecture 3 Lab 1

11. Control Number (on site) 45/24 Control Number (online) \_\_\_\_\_

12. Catalog/Course description:

Students are introduced to ecological principles demonstrating the relationship between organisms and their environment with special emphasis on ecosystems, energetics, population dynamics, and Native American philosophy of the natural environment. Labs include surveying environmental factors of local ecosystems and preparing one research paper. Lecture and Lab. (Prerequisite: BIOL 1101 or consent of instructor) (Meets MnTC goal area 3).

13. Course prerequisite(s) or co-requisite(s): Accuplacer scores/ Other courses

Prerequisite(s): BIOL 1101 General Biology I or consent of instructor

Co-requisite:

14. **Course Materials** (Recommended course materials and resources. List all that apply, e.g. textbooks, workbooks, study guides, lab manuals, videos, guest lecturers).

Course materials will be selected by faculty members to reflect the most up-to-date materials available.

15. **Course Content** (Provide an outline of major topics covered in course)

Lecture topics:

- Natural History
- Individual Ecology
- Population Ecology
- Interactions
- Communities and Ecosystems
- Large-scale Ecology

Lab topics to closely follow lecture material

## 16. Learning Goals, Outcomes, and Assessment

At FDLTCC we have 4 Competencies Across the Curriculum (CAC) areas. They are as follows:

- A. Information Literacy (the ability to use print and/or non-print tools effectively for the discovery, acquisition, and evaluation of information)
- B. Ability to Communicate (the ability to listen, read, comprehend, and/or deliver information in a variety of formats.)
- C. Problem Solving (the ability to conceptualize, apply, analyze, synthesize, and/or evaluate information to formulate and solve problems.)
- D. Culture (knowledge of Anishinaabe traditions and culture, knowledge of one's own traditions and culture, knowledge of others' traditions and cultures, culture of work, culture of academic disciplines and/or respect for global diversity.)

*Course learning outcomes will fulfill the identified competencies.*

*Course learning outcomes.*

Upon completion of this course, the student will be able to:

1. Describe the geography, climate, physical/chemical conditions, and biology of the major terrestrial and aquatic biomes. (A, B)
2. Discuss the human influences on the earth's biomes. (B)
3. Describe the major concepts in population ecology. (B, C)
4. Compare and contrast species interactions including competition, predation, herbivory, parasitism, and mutualism. (B, C)
5. Describe the major concepts in community ecology. (B, C)
6. Describe the major concepts in ecosystems ecology. (B, C)
7. Design experiments, collect and analyze data, and discuss the research in light of the primary literature. (A, B, C)

17. **Minnesota Transfer Curriculum (MnTC):** If this course fulfills an MnTC goal area, state the goal area and list the goals and outcomes below:

See [www.mntransfer.org](http://www.mntransfer.org)

Goal Area(s):   3  

Goal and Outcomes:

Goal 3: Natural Sciences