Fond du Lac Tribal and Community College
COURSE OUTLINE FORM

Updated 11/25/14

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: 02/04/15 Date revised _____

4. **Department/discipline:** Biology

5. **Department(s) endorsement(s):** _____
   (Signatures of the person(s) providing the endorsement are required.)

6. Course Title: Ecology of Minnesota
   Abbreviated course title (25 characters or less): _____

7. Course Designator: BIOL 8. Course Level: 1065

9. Number of Credits: Lecture 3 Lab 1

10. Control Number (on site) 48 Control Number (online) 24

11. Catalog/Course description:

    Students will explore the interrelationships of the plants and animals common to the region with an emphasis on developing an appreciation of the natural cycles and organism adaptations to seasonal changes. (Meets MnTC goal areas 3 & 10) (3 credits lecture, 1 credit lab)

12. Course prerequisite(s) or co-requisite(s): Accuplacer scores/ Other courses
    Prerequisite(s): None
    Co-requisite:

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

    Potential textbooks include: John R. Tester. *Minnesota's Natural Heritage*. Minneapolis: University of Minnesota Press. 1995. Print.

    Other course materials will be provided as needed.

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

    1. The Landscape
    2. Climate and weather of Minnesota
    3. Principles of Ecology
    4. Deciduous Forest
    5. Northern Coniferous Forest
    6. Tallgrass Prairie
    7. Wetlands
    8. Lakes

9. Streams and Rivers
10. The Future

15. **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, students will be able to:

1. Identify the relationships that exist in Minnesota between glacial history, soil development, and vegetation type. (A, B)
2. Describe the basic relationships between energy flow, food webs, nutrient cycling productivity, and population dynamics in Minnesota biomes. (A, B, C)
3. Identify current conditions and issues of concern in Minnesota's terrestrial and aquatic biomes. (A, B, C)
4. Describe past and present management practices as they relate to Minnesota's biological resources. (B)
5. Identify selected flora from various communities in Minnesota. (B, C)
6. Identify selected fauna from various communities in Minnesota. (B, C)

16. **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

Goal Area(s): 3 & 10
Goal and Outcomes:
Goal Area 3: Natural Sciences
Outcomes: 1. Demonstrate understanding of scientific theories.
2. Communicate their experimental findings, analyses, and interpretations both orally and in writing.
3. 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 Area 10: People and the Environment

Outcomes:
1. Explain the basic structure and function of various natural ecosystems and of Human adaptive strategies within these systems.
2. Discern patterns and interrelationships of bio-physical and socio-cultural systems.
3. Evaluate critically environmental and natural resource issues in light of understandings about interrelationships, ecosystems, and institutions.
4. Propose and assess alternative solutions to environmental problems.
5. Articulate and defend the actions they would take on various environmental issues.