Dakota College at Bottineau Course Syllabus

Course Prefix/Number/Title: Biol. 230 - Ecology

Course Description: Investigations of all aspects of freshwater and terrestrial ecosystems of the drift prairie. Biome ecology, Glaciology, Climatology, and Marine Biology.

Course Objectives: A) To develop an understanding of the limnological principles involved in freshwater communities of the glaciated prairie region, B) To investigate the physical parameters of climatology, B) To obtain a basic understanding of the relationships of communities, ecosystems, and biomes, C) To develop an understanding of the processes of glaciology and the effects upon the upland and freshwater ecosystems, D) To obtain a basic knowledge of marine food chains, food webs, and ecological importance of this area to mankind.

Instructor: Allan Aufforth

Office: Nelson Science Center 102

Office Hours: MWF 11:00-12:00

Phone: 701-228-5463

Email: al.aufforth@dakotacollege.edu

Lecture/Lab Schedule: MWF 1:00-1:50/ Thurs. 1:00-2:50/Thurs. 3:00-4:50

Textbook(s): *Ecology* by Molles

Course Requirements: 3 major exams each 120 pts.
Weekly quizzes each 20 pts.
3 Laboratory practical exams each 60 pts.

Grading schedule: 90%-100% = A
80%-89% = B
70%-79% = C
60%-69% = D
<60% = F

Tentative Course Outline:

A. Climatology: An understanding of the physical effects of the hydrologic cycle, growing season, and growth limitations on plant/animal communities.
B. Glaciology: A study of the processes of the dynamics of ice movement during the glacial periods.
C. Limnology: Investigate the food chains, food webs, and successional patterns of freshwater environments of the drift prairie.
D. Marine Biology: Develop an understanding of the complex world in the salt water environment.

E. Biome Ecology: Biological and physical parameters of the following biomes: Grassland, Taiga, Arctic/Antarctic, Desert, and Deciduous Forest.

General Education Goals/Objectives:
Goal #1: Explains the interrelationships between humans and their environment and the role of science in their lives.

Objective 3: Demonstrates an awareness of the role of science in everyday life.

Skill 1. Applies scientific principles to life experiences.

Skill 2. Recognizes the role of science in understanding nature and society.

Relationship to Campus Theme:

This course is a study of the various physical and biological functions to be found in the communities and ecosystems of North America.

Classroom Policies:

All students will respect the classroom environment that will allow for maximum interaction between students and the professor. All cell phones will be turned off when entering the classroom, unless an emergency call is anticipated.

Academic Integrity:

All students will do their own, original work on reports, laboratory assignments, and essays. Any student caught cheating on an exam or quiz will be reprimanded the first time. If it happens again, the student will drop the class.

Disabilities and Special Needs:

Please inform the professor within the first week of classes if any assistance is required due to disabilities or special needs.