

**CONSERVATION OF NATURAL RESOURCES  
FRSC 1190**

Dr. William Moore

Room 118, YOW Bldg.

Phone: 391-4805 (School of Ag and Nat. Res. Office: 391-4790) e-mail: wmoore@abac.edu

Office Hrs: posted by office door

Course Prerequisites: None

Text: None

Course Objectives:

This course is designed to provide students with demonstrable competence in the fundamental concepts and major areas of emphasis, outlined below, related to management of natural resources.

Students enrolled in the Forestry, and Wildlife Technology Programs will be expected to demonstrate an understanding of subject matter requiring higher order processing skills. Examination questions may include essay, synthesis, analysis, and application; as well as completion, multiple choice, true-false, and matching. Computational skills and drawing or diagramming may also be required.

**GRADING:**

Progress in this course will be evaluated based on performance on three (3) one-hour exams during the semester, a comprehensive final examination, and class attendance. The hourly exams will each count 20% towards your grade (hourly exam total = 60%), the final exam will count 30%, and class participation will count for 10%. Course grade will be determined based on the grade scale below.

<u>GRADE</u>	
A	90 - 100%
B	80 - 89%
C	70 - 79%
D	60 - 69%
F	< 60%

\* Hourly exams will be announced at least 1 week in advance.

\* If the final exam grade is higher than the lowest hourly exam grade, the score on the final exam will replace the lowest hourly exam score when calculating the final course grade (Zeros for missed exams do not qualify).

**Syllabus:**

**I. Introduction**

- A. Environmental Crisis - Human Population Explosion, Pollution, Excessive Consumption of Natural Resources, Lack of Respect for the Land
- B. History - Major Periods of Use and Abuse, Increased Conservation Awareness, Important Legislation
- C. Principles of Conservation - Individual Responsibility, Multiple Use, Inventories, Resource Relationships

## II. Ecological Concepts

- A. Environment - Organization Levels
- B. Nutrient Cycles and Energy Flow, Food Chains and Food Webs
- C. Succession - Biomes

## III. Soil

- A. Formation Process
- B. Soil Properties
- C. Orders of Soils
- D. Management - Problems Facing Agriculture
- E. Erosion - Causes and Cures
- F. Soil Nutrients

## IV. Water

- A. Sources
- B. Extremes - Droughts and Floods
- C. Management - Watersheds, Dams, Channelization, Irrigation
- D. Pollution - Nutrients, Organic Waste, Thermal Pollution, Pathogens, Sediments, Heavy Metals, Toxins

## V. Fresh Water Fisheries

- A. The Lake Ecosystem - Spatial Zones, Thermal Zones
- B. The Stream Ecosystem - Current, Land-Water Interface, Oxygen Levels, Thermal Stratification
- C. Environmental Resistance to Fish Populations
- D. Fisheries Management - Regulations, Introductions, Habitat Improvement, Angler Management etc.
- E. The Questions Surrounding Watershed Development - The Dam and the Darter

## VII. Forests

- A. Forest History - Softwoods and Hardwoods, Government Forestry Agencies (Federal and State)
- B. Importance of Forest Products - Uses
- C. Tree Physiology and Growth
- D. Silvicultural Techniques
- E. Monoculture - Advantages and Disadvantages
- F. Forest Pests - Disease and Insects
- G. Wildfire - Prevention and Suppression
- H. Prescribed Burning - A Tool
- I. Meeting Future Forest Products Demands

## VIII. Wildlife

- A. Importance - Aesthetic, Recreational, Scientific, Economical
- B. History of Wildlife Abuse - Extinction and Extirpation
- C. Endangered Species
- D. Sigmoid Population Growth Form
- E. Wildlife Population Behavior

- F. Habitat- Food, Water, and Cover
- G. Wildlife Movements- Migration, Emigration, Home Range
- H. Responsibility for Wildlife- State and Federal

#### IX. Air Pollution

- A. Sources
- B. Effects on Climate
- C. Effects on Human Health
- D. Global Problems - Global Warming, Acid Rain, Ozone Depletion
- E. Abatement and Control

#### X. Energy

- A. Sources
- B. Alternative Sources
- C. Conservation

**ATTENDANCE:** Students whose number of total absences is more than 8 (the equivalent of 20% of class meetings) will receive a grade of “F” for the course. Fewer absences than 8 may result in grade penalties as listed below.

Absences of 8 or fewer will result in loss of the Class Participation points in the following increments:

- 1-4 absences = no penalty
- 5 absences = lose 25% of participation pts.
- 6 absences = lose 50% of participation pts.
- 7 absences = lose 75% of participation pts.
- 8 absences = lose 100% of participation pts.

Each absence greater than 8 will result in a reduction of the final course grade by 3 points.

Students who are absent are responsible for any work or assignments missed. Contacts may be made in person, by phone, by e-mail, or by messages placed under the door of room 118.

The only acceptable reasons for an absence from an exam are sudden illness, school-related trip, or death in the immediate family. The instructor must be notified of all intended absences prior to the exam in question.

If an exam is missed, students must schedule a makeup exam within 1 week of the missed exam. Failure to do so will result in a zero for that exam.

With respect to exams, necessary arrangements will be made for students with diagnosed learning disabilities.

**TARDINESS:** The School of Agriculture and Natural Resources has implemented a new tardiness policy. Any student that is late to class will be considered absent for

the class period. No exceptions. Once class begins, the door will be locked and no one will be able to enter afterwards. Students are not allowed to leave the classroom without permission from the instructor.

**BEHAVIOR:**

1. Students are expected to reflect their status as mature adults and behave courteously towards their classmates and instructor at all times.
2. **No eating or use of tobacco** is allowed in the classroom. Each offense will result in a 3% reduction of the course grade. Drinks that are in lidded containers are allowed – NO CANS.
3. **Cell Phone/Pager Policies:**  
All cell phones and pagers must either be left in a vehicle or turned off. If a student's cell phone rings (including vibrate mode) during class, that student will lose 5 percentage points off of their final course grade for each occurrence. A student checking their phone or pager for calls or text messages will equate to that phone ringing. **Any student texting in class will have to leave the class and will lose 5 percentage points off of their final course grade for each occurrence.**
4. Students are expected to help in keeping the forestry and wildlife building clean.

**POLICY ON CHEATING:** Cheating will not be tolerated. Any form of cheating observed by the instructor, or reported by a classmate and substantiated by physical evidence, will result in automatic withdrawal from the course. A grade of WF will be assigned. Further disciplinary action may follow.

\* Written modifications to the syllabus may be made during the semester.