

Title of Course: Agriculture and Natural Resource Management

I. Catalog Description and Credit Hours of Course:

Application of fundamental agronomic principles to maintain and use natural resources for production, wildlife management, recreation, rural development, and posterity.
Prerequisite: AO120/020. (3)

II. Prerequisites:

AO 120/020

III. Purposes or Objectives of the Course:

At completion of the course, the students should be able to:

- A. List and describe the major categories of natural resources in the United States.
- B. Understand the concepts of natural resource management.
- C. Apply agronomic principles in the management of soil, land, and water resources.
- D. Discuss the importance of forest resources for production, aesthetic values, environmental improvement, and soil and water conservation.
- E. Develop a plan using the most commonly accepted methods of fish and wildlife management.
- F. Identify the opportunities to utilize natural resources for outdoor recreation on public and private properties.
- G. Understand the importance of properly managing natural resources for rural development and posterity.

IV. Expectations of Students:

1. Regular attendance and class participation.
2. Demonstrate evidence of study outside of class.
3. Prepare and complete written assignments in a timely manner and take examinations on scheduled dates.

4. Comply with University policy on academic honesty.

V. Course Content or Outline:

1. Introduction
 1. Our Natural Resources
 2. History of Conservation in the United States
 3. Concepts in Natural Resources Management
2. Soil and Land Resources
 1. Soil Characteristics
 2. Erosion and Control
 3. Rangeland Management
 4. Landfills and Solid Waste Management
 5. Wetland Preservation and Management
 6. Land-Use Planning
3. Water Resources
 1. Water Supply and Uses
 2. Water Pollution
 3. Water Purification and Waste Water Treatment
 4. Water-Use Planning
4. Forest Resources
 1. Our Forests and Their Products
 2. Woodland Management
 3. Forest Enemies and Their Control
 4. Fire
5. Fish and Wildlife Resources
 1. Fish and Wildlife in America
 2. Game Management
 3. Marine Fisheries Management
 4. Freshwater Fishery Management
6. Outdoor Recreation Resources
 1. Recreation on Public and Private Lands
 2. Outdoor Safety

7. Energy, Mineral, and Metal Resources
 1. Fossil Fuel Management
 2. Alternative Energy Sources Management
 3. Metals and Minerals
8. Concepts of Natural Resources Management and Rural Development

VI. Textbooks and/or Other Required Materials or Equipment:

1. Camp, WG and TB Daugherty. 2002. Managing Our Natural Resources, 4th ed. Thomsen/Delmar Learning, Clifton Park, NY
2. Other References:
 1. Missouri Department of Natural Resources <http://www.dnr.state.mo.us/>
 2. United States Department of Agriculture Natural Resources Conservation Service <http://www.nrcs.usda.gov/>
 3. Library References
 4. Handouts

VII. Basis for Student Evaluation:

1. Three Exams (50 percent)
2. Quizzes (20 percent)
3. Exercises (10 percent)
4. Written assignments (10 percent)
5. Class Participation

Evaluation

90-100 percent	A
80-89 percent	B
70-79 percent	C
60-69 percent	D
Below	F