

Forestry and Wildlife Management, Semester A

Credits: 0.5

Course Overview and Goals

Forestry and Wildlife Management, Semester A, is the first part of a two-semester course. In this course, you will identify employment and entrepreneurial opportunities in forestry, wildlife, and natural resource management. You will learn about safety hazards and procedures. You will examine water sources and water quality. You will learn about mineral resources, mineral extraction, types of trees, plant processes, aquatic resources, and invasive species. You will identify types of land resources. You will explain how parks are funded and managed. You will also learn about forest management methods and silviculture practices. Finally, you will learn about the carrying capacity of rangelands and the consequences of overgrazing.

This course consists of 14 lessons organized into four units, four Unit Activities, and four Discussions. Additionally, there is one Course Activity and one Course Project. Each lesson contains one or more Lesson Activities. You will grade your work in the Lesson Activities by comparing it to sample responses. You will submit the Unit Activities, Course Activity, and Course Project to your teacher for grading.

By the end of this course, you will be able to do the following:

- ❖ Collect information about roles and responsibilities in forestry, wildlife, and natural resource management.
- ❖ Evaluate the uses and quality of natural resources, such as water, minerals, and plants.
- ❖ Assess resource management practices and their impact on the environment.
- ❖ Summarize challenges in resource, land, and forest management, and propose solutions.
- ❖ Write a résumé for a forestry or wildlife management role.
- ❖ Assess common hazards in forestry and wildlife management careers and discover safety procedures and policies within the industry.

UNIT 1: CAREERS AND SAFETY (DAYS 1 – 18)

In this unit, you will examine employment and entrepreneurial opportunities in forestry, wildlife, and natural resource management. You will define supervised agricultural experience (SAE) programs. You will create a résumé. You will identify common hazards in the workplace and laboratory. You will also identify laws and regulations related to safety.

Lesson	Lesson Objective
Syllabus and Orientation	Review the Student Orientation and Course Syllabus at the beginning of this course.
Careers	Examine employment and entrepreneurial opportunities in forestry, wildlife, and natural resource management.
Recordkeeping	Examine supervised agricultural experience (SAE) programs and create a résumé.
Safety	Review common workplace and laboratory hazards and safety procedures.

UNIT 2: WATER AND MINERAL RESOURCES (DAYS 19 – 40)

In this unit, you will examine the sources and uses of water. You will describe how water usage affects water quality and quantity. You will differentiate between point source and nonpoint source pollution. You will identify various mineral resources. You will also describe how minerals are extracted, processed, and used.

Lesson	Lesson Objective
Sources and Uses of Water	Examine the sources and uses of water.
Quantity and Quality of Water	Analyze the impact of water quality and sources of pollution.
Mineral Resources	Analyze various mineral resources and the consequences of mineral resource depletion.
Mineral Extraction	Review how minerals are extracted, processed, and used.

UNIT 3: PLANT AND ANIMAL RESOURCES (DAYS 41 – 57)

In this unit, you will examine the physical characteristics of trees. You will examine plant processes, growth, and taxonomy. You will identify different types of aquatic resources. You will assess the impact of aquatic resources on the ecosystem. You will also examine invasive species and their impact on the environment.

Lesson	Lesson Objective
Plant Resources	Examine characteristics of tree and plant processes.
Aquatic Resources	Review aquatic resources and their impact on the ecosystem.
Non-Native Species	Examine invasive species and their impact on the environment.

UNIT 4: LAND RESOURCES (DAYS 58 – 90)

In this unit, you will identify various types of land resources. You will compare public and private property rights. You will define the National Park Service (NPS). You will describe the importance and purpose of state park systems. You will learn about forest management methods and silviculture practices. You will list the features of rangeland vegetation. Finally, you will outline strategies and practices to maintain the quality of rangelands.

Lesson	Lesson Objective
Public Lands	Recognize various types of land resources and property rights.
State Parks	Examine how state parks are managed.
Forests	Examine forest management methods and silviculture practices.
Rangeland	Analyze the carrying capacity of rangelands and the consequences of overgrazing.
Course Activity	Industry-Specific Skills
Course Project	Forest Management Strategies