

Discipline: Agriculture	Sub-discipline: Forestry/Natural Resources
General Course Title: Introduction to Forestry and Natural Resources	Min. Units: 3 Semester
Proposed Suffix: L	
<p>Course Description:</p> <p>This course is an introduction to the integrated management of trees, soils, water, fish, and wildlife for the production of wood and fiber products. The emphasis will be on both the traditional and emerging uses of the forest resource to satisfy human needs and the consequent protection of the public trust. Basic biological and ecological processes will be introduced along with discuss of the scientific method and preparing reports. Laboratory required.</p>	
Required Prerequisites or Co-Requisites ¹	
Advisories/Recommended Preparation ²	
<p>Course Objectives: <i>At the conclusion of this course, the student should be able to:</i></p> <ul style="list-style-type: none"> • Assess the importance of forest products and other natural resources to our society. • Examine the effects of early forest policy and regulations on the resources. • Construct a list of State and Federal agencies and explain their responsibilities in resource management. • Investigate career options using a variety of resources including the internet. • Explain the concepts of multiple use and sustainability. • Explain the concepts of Classification and Taxonomy. • Explain the basic principles of biological succession. • Distinguish between the anatomy and physiology of a plant. • Differentiate and label the external parts of a plant including roots, stems, leaves, and flowers. • Evaluate the factors that influence the health of an ecosystem. • Illustrate basic principles of watershed restoration. • Investigate the major functions and significance of watersheds. • Assess the factors that affect populations. • Apply the basic principles and practices of measuring, evaluating, managing and manipulating forest, wildlife, range, and water resources for human uses and values. • Explain the basic terms, concepts, and principles of forest science and management, and be able to articulate them clearly and concisely. • Explain the three elements which must be present for a fire to occur. • Explain the effects of fire on forests. • Evaluate past and present efforts of agencies to prevent wildfires. 	
<p>Course Content:</p> <p>Unit 1: Introduction to Forestry and Natural Resources Management in the United States</p> <ol style="list-style-type: none"> 1. Values and uses of Forests and other Natural Resources 2. History 3. Policy and Law 4. Multiple Use concept 5. Employment opportunities in Forestry and Natural Resources <ol style="list-style-type: none"> A. Career resources 6. Natural Resources Agencies <ol style="list-style-type: none"> A. Public vs. private B. State and Federal Agencies and their management philosophy <p>Introduction to Forest Science (Content Continued)</p>	

¹ Prerequisite or co-requisite course need to be validated at the CCC level in accordance with Title 5 regulations; co-requisites for CCCs are the linked courses that must be taken at the same time as the primary or target course.

² Advisories or recommended preparation will not require validation but are recommendations to be considered by the student prior to enrolling.

Unit 2: Biological Basis of Forestry and Natural Resources Management

1. Anatomy
2. Physiology
3. Growth of plants
4. Taxonomy and Biological organization
5. Using plant keys

Unit 3: Ecological Basis

1. Introduction to ecology
2. Populations
3. Role of the Physical Environment
4. Succession
5. Ecosystem Management

Unit 4: Inventory and Measurement of Natural Resources

1. Taking Field notes
2. Scientific method
3. Data Collection
4. Equipment and Tools
 - A. Compass
 - B. Clinometer
 - C. Loggers tape
 - D. Other tools and instruments
5. Measurements in natural resources
 - A. Forests
 - B. Watersheds
 - C. Soils
 - D. Wildlife
 - E. Rangelands

Unit 5: Other topics in natural resources

1. Wildlife conservation and management
2. Range management
3. Outdoor recreation
4. Wilderness
5. Fire ecology and management
6. Watershed management
7. Anadromous fish.
8. Habitat impacts by urbanization, agriculture, forestry etc.
9. Sustainable Natural Resource practices
10. Public relations
11. Safety
12. Computer applications

Laboratory Activities: Individual Laboratory Activities are designed to support course objectives.

Methods of Evaluation: Lecture
Comprehensive Quizzes and Exams
Written Critical Thinking Scenarios
Problem Analysis and Solution
Research and Term Papers

Methods of Evaluation: Laboratory
Laboratory Skill Validation by Observation
Laboratory Reports
Laboratory Research Projects and Reports
Laboratory Skill Practicum Exams

Typical Textbooks, Manuals, or Other Support Materials

Introduction to Forestry Science, Burton, DeVere, 2000
Introduction to Forests and Renewable Resources, Sharpe, Hendee, and Sharpe, 2003
Introduction to Forest Ecosystem Science and Management,

Raymond A. Young and Ronald L. Giese, Editors. John Wiley & Sons. 2003

Statewide Articulation: CPSLO-FNR 201, articulated to other universities as specific equivalent by individual community colleges, additional statewide course equivalency articulation currently underway, also currently transfers as lower division elective

FDRG Lead Signature:

Date:

Mark E. Bender, PhD CSU Stanislaus

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Internal Tracking Number