

Forestry Assessment Plan Rev. 11/21/2019

Forestry	16-17	17-18	18-19	19-20	20-21	21-22
<b>FOREB1 - Introduction to Forestry</b>						
• Upon completion the student will be able to: The student will be able to identify key people, places, and dates relating to the history of the development of U.S. forests and forest policy.						P
• Upon completion the student will be able to: The student will be able to list the major forest management groups in the U.S. and California, their approximate acreage managed, approximate number of employees, and legal responsibilities.						P
• Upon completion the student will be able to: The student will be able to identify the major forest areas of the U.S. from a map, list the major tree species found in each area, and list the major products from each area.						P
• Upon completion the student will be able to: The student will identify the parts of a cross section of a tree.						P
• Upon completion the student will be able to: The student will be able to list the steps in forest succession in order of occurrence and describe the final dominance relationship among trees in a mature forest.						P
• Upon completion the student will be able to: The student will be able to determine the best method of thinning a forest to maintain forest health and long-term productivity.						P
• Upon completion the student will be able to: The student will be able to identify basic classes of forest pests and determine possible means of control.						P
• Upon completion the student will be able to: The student will be able to recognize key factors necessary to determine the best management practices resulting in sustainable forest health and productivity.						P
• v The student will be able to list the basic steps in the production and harvest of wood for lumber or paper.						P
• Upon completion the student will be able to: The student will be able to identify common, modern wood and paper products from U.S. forests.						P
<b>FOREB2 - Natural Resources</b>						
• Upon completion the student will be able to: Define ecology and conservation including their history and development and the limits of industrial and economic growth.						P
• Upon completion the student will be able to: Analyze the courses of forest wildfires and forest wildlife extinction.						P
• Upon completion the student will be able to: Analyze the pest and pesticide problems and all alternatives to them.						P
• Upon completion the student will be able to: Analyze the air pollution problems and their control/prevention/costs						P
• Upon completion the student will be able to: iThe student will be able to create and submit an experimental plan using the steps of standard scientific procedures (the scientific method). The student will create data, analyze the data, and write a summary of the experiment using the standard scientific formula. SEE ATTACHMENTS						P
• Upon completion the student will be able to: The student will be able to plan and submit an experiment testing fertilizer rates upon subsequent tree growth in board-feet comparing the North, South, East, West, aspect of a forest. This experiment will follow standard scientific procedures of the scientific methods. SEE ATTACHMENTS						P
• Upon completion the student will be able to: Demonstrate the relationship between the flow of energy, photosynthesis, respiration, food chains, food webs, tolerances, biological successions and elemental cycles						P
• Upon completion the student will be able to: Compare and contrast Malthusian and neo-malthusian over population.						P
• Upon completion the student will be able to: Describe the nature of soils including formation, erosion prevention, nutrient loss and gain, and the relationship between soil and human health.						P
• Upon completion the student will be able to: Analyze the need for greater food production and farming practices.						P
• Upon completion the student will be able to: Analyze the relationship between human kind and water on planet earth including the hydrologic cycle, irrigation, new sources of water, eutrophication, water pollution and water borne diseases.						P
• Upon completion the student will be able to: Illustrate the effects of estuaries on fish.						P
• Upon completion the student will be able to: Describe how an ocean estuary is one of our last frontiers and a source of global food.						P
• Upon completion the student will be able to: Diagram a safe, sustainable forest management plan for each of the five forest multiple uses-timber/wood; grazing/range land; watershed/flood control; wildlife; recreation						P

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**FOREB3 - Wildlife Management**

• Upon completion the student will be able to: Analyze the values and renewability of wildlife including commercial, game, aesthetic, ethical, scientific and ecological values.						P
• Upon completion the student will be able to: Describe the problem of worldwide declining diversity of wildlife.						P
• Upon completion the student will be able to: Analyze what is meant by the "Ten Thousand Year War on Wildlife: and appraise.						P
• Upon completion the student will be able to: Compare and contrast the title to game and hunting rights between medieval time and the present.						P
• Upon completion the student will be able to: Describe how everything in wildlife ecology is tied together including biotic communities, energy flow chains, food webs, biotic successions, biomes, and ecological niches.						P
• Upon completion the student will be able to: Compare and contrast the nutritional needs and the effect on the environment of carnivores, herbivorous seed eaters and herbivorous grazers and browsers including ruminants.						P
• Upon completion the student will be able to: Evaluate the types of cover including shelter cover, escape cover, roosting cover, nesting cover, the "edge effect: the law of the minimum:, and the law of interspersion".						P
• Upon completion the student will be able to: Categorize the dynamics of wildlife populations including density, sex and age structure, clutch or litter size and frequency, decimating factors, biotic potential and environmental resistance.						P
• Upon completion the student will be able to: Analyze wildlife territory and travel both internal and external to the population including immigration, emigration dispersal, group size and spacing.						P
• Upon completion the student will be able to: Describe multiple use wildlife management including new and reintroduced populations, slow growth, stable/cyclic/ irruptive populations and a "harvestable surplus"						P

**FOREB4 - Wildlife Law Enforcement**

• 1. Upon successful completion of the course, the student will be able to define the five elements of habitat				P		
• 2. Upon successful completion of the course, the student will be able to differentiate the similarities and differences between local, state and federal jurisdictions.				P		
• 3. Upon successful completion of the course, the student will be able to evaluate law enforcement actions based on Constitutional Rights				P		

**FOREB5 - Identification of California Wildlife**

• 2. Upon successful completion of the course, the student will be able to describe the names of and characteristics of game animals, game birds, and protected species.				P		
• 1. Upon successful completion of the course, the student will be able to define habitat and factors that limit wildlife populations.				P		
• 4. Upon successful completion of the course, the student will be able to describe the range, natural history, cover needs, food and water needs, breeding cycles, social behavior, predator relations and values to human society of the following wildlife taxonomic Orders and Families; Gruiformes, Columbiformes, Galliformes, Anseriformes, Didelphimorphia, Charadriiformes, Carnivora, Pinnipedia, Rodentia and Lagomorpha.				P		
• 3. Upon successful completion of the course, the student will be able to describe animal migration, predator and prey interrelationships, how birth and death rates are regulated in nature and how stress affects wildlife.				P		

**FOREB6 - Forestry Skills**

• Upon completion of the course, the student will be able to formulate a career plan outlining courses to be taken to obtain a certificate, an AA/AS degree and/or transfer to a four year university including a cooperative work experience internship.						P
• Identify and demonstrate the proper and safe use of selected forestry/wildlife/natural resource management tools and equipment.						P
• Develop an interpretive program for a forestry/wildlife/natural resource recreational area.						P

**FOREB7 - Wildland Fire Management**

• 1. Upon successful completion of the course, the student will describe the principles of wildland fire behavior and the influence creating weather known as fire weather				P		
• 2. Upon successful completion of the course, the student will evaluate how different topographical features and wildland fuels effect fire behavior.				P		
• 3. Upon successful completion of the course, the student will describe fire pre-suppression activities including prevention, detection, training, planning and safety.				P		

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• 4. Upon successful completion of the course, the student will analyze the aspects of fire such as beneficial and harmful factors, economic values and the environmental impacts.				P		
<b>FOREB48WE - Occupational Work Experience Education/Internship</b>						
• Upon completion the student will be able to:Articulate the specific work experience objectives in Forestry as described by employer and identify the various skills, knowledge and attitudes necessary to the accomplishment of those objectives.						P
• Upon completion the student will be able to:Demonstrate the acquisition of the various skills, knowledge and attitudes necessary to the completion of the work experience objectives in Forestry and the ability to effectively meet employer's job expectations.						P
• Upon completion the student will be able to:Identify and analyze the application of acquired skills, knowledge and attitudes to career opportunities in Forestry.						P