Forestry Management

Course Description: Forestry Management is designed to develop student knowledge of forestry technology. The student will develop skills in producing, harvesting, marketing and developing forestry products and public utilization. Forests are one of Tennessee's most valuable resources.

Recommended Prerequisites: Agriscience or Principles of Agricultural Sciences

Recommended Credit: 1

Recommended Grade Level: 10th, 11th or 12th

Course Codes: **(2009-2010)** A10 – **5115** or A12 – **5165**
(2010-2015) A12 – **5165**

Standard 1.0

Explore careers in the world of forestry.

Standard 2.0

Specify major forest products of the world and describe the practices used in the management of these products.

Standard 3.0

Analyze methods of tree growth classification and identification of forest trees in Tennessee.

Standard 4.0

Recommend basic tools, equipment, and safety practices in the forestry industry.

Standard 5.0

Employ the skills necessary for surveying and cruising timber stands.

Standard 6.0

Interpret land descriptions and locate land tracts on a topographical and a standard map.

Standard 7.0

Evaluate the different types of damage that occur to a forest.

Standard 8.0

Recommend utilization practices and discuss marketing of forest products.

Standard 9.0

Demonstrate premier leadership and personal growth needed for success and advancement in the forestry industry.

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Standard 1.0
Evaluate careers in the world of forestry.
Learning Expectations and Performance Indicators:
1.1   Specify and explain terms related to the forestry industry.
1.2   Assess the importance of trees and forests in rural and urban settings.
1.3   Explore the history and current status of forestry in the United States.
1.4   Research and prepare a written report on career opportunities in career opportunities available in forestry.
1.5   Demonstrate communication skills involved in forestry.

Standard 2.0
Specify major forest products of the world and describe the practices used in the management of these products.
Learning Expectations and Performance Indicators:
2.1   Summarize terms related to forest products.
2.2   Analyze global uses of forests and their products.
2.3   Evaluate and explain the role of a forest manager.
2.4   Evaluate and explain the basic forest management practices.
2.5   Evaluate and explain the best management practices used in forestry and their effects on water quality.
2.6   Organize and present a report using the best management practices for a local forest or woodland.

Standard 3.0
Analyze methods of tree growth classification and identification of forest trees in Tennessee.
Learning Expectations and Performance Indicators:
3.1   Specify terms related to tree identification.
3.2   Explain the major parts of the growth processes of trees and how biotechnology is improving those processes.
3.3   Assess the classification system of a tree according to size and crown.
3.4   Explain hardiness zones.
3.5   Categorize basic taxonomy and characteristics of leaves, fruits and twigs.
3.6   Evaluate the effects of soil fertility on tree growth and ecosystems.

Standard 4.0
Recommend basic tools, equipment, and safety practices in the forestry industry.
Learning Expectations and Performance Indicators:
4.1   Summarize terms related to tools, equipment, and safety.
4.2   Determine basic safety practices for working in the forest industry.
4.3   Recognize the dangers and assess proper safety precautions for working in a forestry environment.
4.4   Relate hand tools and power equipment to their uses in the forest industry.

Standard 5.0
Evaluate the skills necessary for surveying and cruising timber stands.
Learning Expectations and Performance Indicators:
5.1   Summarize terms related to forest mensuration.
5.2   Manipulate standard measurements and their equivalents and use common formulas to perform appropriate calculations in forestry.
5.3   Integrate basic procedures, calculations and tools of forestry surveying.
5.4   Convert compass-readings and adjust a compass for needed directions.
5.5   Integrate pacing and chaining techniques to measure horizontal distances, angles, and slopes.
5.6   Determine the types of cruises, the tools used, and the methods of cruising.
5.7   Complete systematic grid layouts for plot and point cruising and determine volume by cruising.

Standard 6.0
Interpret land descriptions and locate land tracts on a topographical and a standard map.
Learning Expectations and Performance Indicators:
6.1   Specify terms related to map interpretation.
6.2   Interpret a topographic map.
6.3   Utilize and explain operational procedures of the different types of compasses.
6.4   Plot a compass reading on a map by azimuth and bearing readings.

Standard 7.0
Evaluate the different types of damage that occur to a forest.
Learning Expectations and Performance Indicators:
7.1   Summarize terms related to forest disorders and damages.
7.2   Specify types of causes and effects of wild fire and prescribed fires.
7.3   Recommend tools and techniques for fire fighting.
7.4   Evaluate the causes and control of damages caused by insects, diseases, wind, pollution and invasive pest species.

Standard 8.0
Recommend utilization practices and discuss marketing of forest products.
Learning Expectations and Performance Indicators:
8.1   Summarize terms related to forest utilization and marketing.
8.2   Evaluate and explain forest utilization practices
8.3   Specify forest-marketing techniques for highest returns.
8.4   Evaluate worldwide markets for forest products.
8.5   Evaluate the impact of urban forests and greenbelts on urban lifestyles.

Standard 9.0
Demonstrate premier leadership and personal growth needed for success and advancement in the forestry industry.

Learning Expectations and Performance Indicators:

9.1   Summarize terms related to Leadership and communication.
9.2   Conduct meetings using appropriate rules of conduct and parliamentary procedure.
9.3   Evaluate a code of ethics for business.
9.4   Develop public speaking skills needed to communicate in the forestry industry.
9.5   Research opportunities for a supervised agricultural experience program based on forest utilization.