

NRM 70 Course Outline as of Fall 2012**CATALOG INFORMATION**

Dept and Nbr: NRM 70

Title: FOREST PRACTICES

Full Title: Forest Practices

Last Reviewed: 9/24/2018

Units		Course Hours per Week		Nbr of Weeks	Course Hours Total	
Maximum	4.00	Lecture Scheduled	3.00	17.5	Lecture Scheduled	52.50
Minimum	4.00	Lab Scheduled	3.00	6	Lab Scheduled	52.50
		Contact DHR	0		Contact DHR	0
		Contact Total	6.00		Contact Total	105.00
		Non-contact DHR	0		Non-contact DHR	0

Total Out of Class Hours: 105.00

Total Student Learning Hours: 210.00

Title 5 Category: AA Degree Applicable

Grading: Grade Only

Repeatability: 00 - Two Repeats if Grade was D, F, NC, or NP

Also Listed As:

Formerly: FOR 70

Catalog Description:

Applied forestry as related to forest stand improvement, harvest methods, fire control, manufacturing and management of forested lands. Measurement of timber stand growth, quantity, and quality, and other forest resources, including water, range, wildlife, and outdoor recreation. Field trips are mandatory.

Prerequisites/Corequisites:**Recommended Preparation:**

Eligibility for ENGL 100 or ESL 100

Limits on Enrollment:**Schedule of Classes Information:**

Description: Applied forestry as related to forest stand improvement, harvest methods, fire control, manufacturing and management of forested lands. Measurement of timber stand growth, quantity, and quality, and other forest resources, including water, range, wildlife, and outdoor recreation. Field trips are mandatory. (Grade Only)

Prerequisites/Corequisites:

Recommended: Eligibility for ENGL 100 or ESL 100

Limits on Enrollment:

Transfer Credit: CSU;

Repeatability: Two Repeats if Grade was D, F, NC, or NP

ARTICULATION, MAJOR, and CERTIFICATION INFORMATION:

AS Degree:	Area	Effective:	Inactive:
CSU GE:	Transfer Area	Effective:	Inactive:
IGETC:	Transfer Area	Effective:	Inactive:
CSU Transfer:	Transferable	Effective: Fall 1981	Inactive:
UC Transfer:		Effective:	Inactive:

CID:

Certificate/Major Applicable:

Certificate Applicable Course

COURSE CONTENT

Outcomes and Objectives:

Upon successful completion of this course, students will be able to:

1. Discuss the objectives and goals of a forest inventory project.
2. Measure and record data from a forest setting using state-of-the-art technologies utilized in the forest industry as well as simple measurement devices.
3. Apply procedures in timber stand thinning.
4. Collect and analyze data on the growth and yield of forest products over time.
5. Apply harvesting planning and how it relates to forestry using appropriate measuring tools.
6. Scale logs for the board foot volume based on mathematical formulations.

Topics and Scope:

1. Measurement Analysis Tools and Technologies
 - a. Field data collectors
 - b. Hypsometers
 - c. Loggers tapes
 - d. Prisms
 - e. Clinometers
 - f. Relaskops
 - g. Hand held distance lasers
 - h. Cruisers sticks
 - i. Scaling sticks
 - j. Hand compass
 - k. Planimeters
2. Timber Cruising
 - a. Identification of species
 - b. Measurement of Trees
 1. Inventory equipment

2. Utilization standards
3. Height and diameter measurements
4. Gross Volume Determination
- c. Types of Cruises
 1. Strip Cruising
 2. Plot Cruising
 3. Variable Plot Cruising
3. Timber Stand Improvement
 - a. Stand survey
 - b. Stand selection
 - c. Stand removal
4. Harvesting
 - a. Planning, requirements for harvesting
 - b. Effects of harvesting upon recreation and silviculture
5. Other Forest Measurements
 - a. Wood products
 - b. By-products
 - c. Water
 - d. Range
 - e. Wildlife
 - f. Recreation
 - g. Soils
 - h. Fisheries

Assignment:

1. Reading assignments that will average 10 - 15 pages per week.
2. Two timber inventory reports totaling ten pages.
3. Timber inventory field notebook totaling twenty-five pages of field measurements, including measurements of tree heights, diameters, basal area, slope, aspect, stocking levels, species composition, log volumes and defects, growth rates fuel loading, and stand types, using measurement and analysis tools.
4. Laboratory exercises: field trips emphasizing the collection, examination, and evaluation of field data.
5. Prepare simple and accurate maps from field data.
6. Quizzes (6); mid term and final exams.

Methods of Evaluation/Basis of Grade:

Writing: Assessment tools that demonstrate writing skills and/or require students to select, organize and explain ideas in writing.

Timber inventory reports

Writing 20 - 30%

Problem Solving: Assessment tools, other than exams, that demonstrate competence in computational or non-computational problem solving skills.

Homework problems, field work, field notebook; lab exercises
--

Problem solving 20 - 30%

Skill Demonstrations: All skill-based and physical demonstrations used for assessment purposes including skill performance exams.

Lab exercises, field trips

Skill Demonstrations
20 - 30%

Exams: All forms of formal testing, other than skill performance exams.

Quizzes and final exam: completion, short essay questions

Exams
30 - 40%

Other: Includes any assessment tools that do not logically fit into the above categories.

Attendance and participation

Other Category
0 - 10%

Representative Textbooks and Materials:

Introduction to Forests and Renewable Resources. Sharpe, Grant; Henlee, John; and Sharpe, Wenonah; Waveland Pr Inc., 7th ed., 2009.

Forest Mensuration. Husch, Bertram, Thomas Beers, and John A. Keershaw, Jr. John Wiley and Sons, 2003.(classic)

Trees and Forest Measurement. West, Phil. Springer Verlag, 2009.

Aerial Photography and Image Interpretation. Paine, David P. and James D. Kaiser. John Wiley & Sons, 2012