



F330 – Timber Harvesting

Department of Forest and Rangeland Stewardship
Warner College of Natural Resources

COURSE SYLLABUS (subject to change)

	Instructor	Teaching Assistant
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Term:	Spring 2019
Class Meeting Days:	T, H
Class Meeting Hours:	7:45am – 9:25am
Class Location:	NR 109
Lab Location:	NR 109
Course Credits:	3

Course Overview

Timber harvesting as it relates to the environment and how material can be removed from the forest

Course Objectives

Provide students with the fundamentals of timber harvesting. After completing this course, students will be able to:

- Discuss the history of timber harvesting and logging in the United States,
- Identify the components of timber sale processes and contracts,
- Follow best management practices,
- Know how to fell, limb, buck, scale and grade logs,

- Distinguish between the different pieces of equipment and machinery necessary for timber harvesting,
- Select the most appropriate timber harvesting methods and systems based on site conditions and characteristics of available material, and
- Contribute to timber harvesting research activities at CSU, if so desired.

Course Prerequisites

Prerequisite: F 230 Forest Field Measurements or permission of the instructor.

Required Texts and Materials

Required materials will be posted on RamCT for download.

Supplementary (Optional) Texts and Materials

Additional, optional materials will also be posted on RamCT or distributed during lecture.

Important Dates to Remember

Important course dates and assignments are listed in the section below. Graded assignments are listed in boldface. All the dates and assignments are tentative, and can be changed at the discretion of the professor. You may also want to consult the CSU Academic Calendar for other important semester dates (such as course withdrawal deadlines): <http://calendar.colostate.edu/academic.aspx>.

Course Schedule and/or Schedule of Assignments

Expected Time	Task to Complete
Jan 22	Introduction (Class begins)
Jan 24	History of Timber Harvesting (Logging)
Jan 29	Timber Harvesting Process and Timber Sale Contracts; Quiz 1
Jan 31	Logging Roads and Skid Trails
Feb 5	Planning and Construction of Logging Roads; Quiz 2
Feb 7	Best Management Practices
Feb 12	Manual Felling; Quiz 3
Feb 14	Manual Limbing and Bucking; Exercise 1 due
Feb 19	Log Scaling and Grading; Quiz 4
Feb 21	Mechanical Felling
Feb 26	Exam 1
Feb 28	Skidding
Mar 5	Skidding; Quiz 5
Mar 7	Skidding; Exercise 2 due
Mar 12	Skid Trail Layout;

	Quiz 6
Mar 14	Forwarders
Mar 19	Spring Break
Mar 21	Spring Break
Mar 26	Cable Yarding; Quiz 7
Mar 28	Cable Yarding; Exercise 3 due
Apr 2	Cable Yarding – Small Yarding Systems; Quiz 8
Apr 4	Aerial Systems
Apr 9	Exam 2
Apr 11	Mechanical Delimiting, Processing and Chipping; Exercise 4 due
Apr 16	Loading; Quiz 9
Apr 18	Transportation
Apr 23	Timber Harvesting (Logging) Systems; Quiz 10
Apr 25	Harvesting Methods vs. Systems; Exercise 5 due
Apr 30	Small Log Systems; Quiz 11
May 2	Small Log Systems (Cont.)
May 7	Harvesting Research at CSU; Quiz 12; Exercise 6 due
May 9	Review and Course Evaluation
May 13	Final Exam (Monday, 9:40 pm to 11:40 am, NR 109)

Project Assignments

Class Attendance/Participation - Class attendance is mandatory and participation is required for each session.

Quizzes- Quizzes will be given at the beginning of class each week with the exception of the first week and during exam weeks. Quizzes are primarily multiple choice, fill in the blank and short answer questions and typically take about 10 minutes to complete.

Mid-Term Exams- Mid-term exams will be comprehensive and focus mainly on the material covered during the weeks leading up to the examination. Questions will resemble the approach used in the quizzes.

Lab Exercises- Lab exercises will allow you to apply the concepts you learned during lecture.

Final Exam- The final exam will be comprehensive, though the majority of the exam questions will focus on the material covered during the last third of the semester. Lab exercises will also be part of the exam.

Extra Credit- Extra credit assignments will be offered to replace lost credit at the discretion of the instructor.

Basis for Final Grade

Grading Scale-

97-100%	=	A+
93-96%	=	A
90-92%	=	A-
87-89%	=	B+
83-86%	=	B
80-82%	=	B-
77-79%	=	C+
70-76%	=	C
60-69%	=	D
<60%	=	F

Note: This scale is accurate; there will be no curve.

Methods of Student Evaluation

Grades will be based individual student performance on assignments during the semester. These assignments will be weighted as follows:

Class Attendance- Each unexcused absence will result in a minus 0.33% penalty applied to your final participation/attendance grade.
(10% total)

Quizzes- Out of the 12 quizzes given, only your top 10 quiz scores will count. Quizzes are worth 2% each.
(20% total)

Mid-Term Exams- Two mid-term exams will be given and mid-term exams are worth 10% each.
(20% total)

Lab Exercises- Out of the six lab exercises, only your top five scores will count. Lab exercises are worth 5% each.
(25% total)

Final Exam
(25% total)

Extra Credit
(typically 1% added to final average per assignment)

Course Policies

Late Work Policy:
Late assignments will be assessed a penalty determined by instructors.

Extra Credit Policy:
Extra credit opportunities may be offered at the discretion of the instructors.

Grades of "Incomplete":
Per university policy, an instructor may assign temporary grade of Incomplete to a student who demonstrates that he or she could not complete the requirements of the course due to circumstances beyond the student's control and not reasonably foreseeable. A student must be passing a course at the time that an Incomplete is requested unless the instructor determines that there are extenuating circumstances to assign an Incomplete to a student who is not

passing the course. When an instructor assigns an Incomplete, he or she shall specify in writing using the Department Incomplete Grade Form the requirements the student shall fulfill to complete the course as well as the reasons for granting an Incomplete when the student is not passing the course. The instructor shall retain a copy of this statement in his or her grade records and provide copies to the student and the department head or his or her designee. (Section I.6 of the *Academic Faculty and Administrative Professional Manual*)

Disability Access:

Colorado State University is committed to providing reasonable accommodations for all persons with disabilities. Students with disabilities who need accommodations must first contact Resources for Disabled Students before requesting accommodations from the professor. Resources for Disabled Students (RDS; <http://rds.colostate.edu/home>) is located in room 100 of the General Services Building. Their phone is (970) 491-6385 (V/TDD). Students who need accommodations in this course must contact the professor at the beginning of the semester to discuss needed accommodations.

Attendance Policy:

Class participation is mandatory. Students will be docked for any unexcused absence that result in non-participation; multiple absences may result in a failing grade. Excused absences must be cleared by instructors well in advance. Both attendance and participation will contribute to your overall grade.

Religious Accommodation:

Participation in official University activities, e.g., an out-of-town athletic event, or special religious observances may provide a legitimate reason for an excused absence. The student is responsible for discussing this with the instructor at the beginning of the semester.

Final Exam Policy:

There will be a final examination.

Professionalism Policy:

Per university policy and classroom etiquette; mobile phones, iPods, *etc.* **must be silenced** during all classroom and lab lectures. Those not heeding this rule will be asked to leave the classroom/lab immediately so as to not disrupt the learning environment. Please arrive on time for all class meetings. Students who habitually disturb the class by talking, arriving late, *etc.*, and have been warned may suffer a reduction in their final class grade. When emailing the instructor or TA, please include your full name and the course number in your email (also your CSU ID if appropriate).

Academic Integrity:

The Department of Forest and Rangeland Stewardship takes academic integrity seriously. At minimum, academic integrity means that no one will use another's work as their own. The CSU writing center defines plagiarism this way:

Plagiarism is the unauthorized or unacknowledged use of another person's academic or scholarly work. Done on purpose, it is cheating. Done accidentally, it is no less serious. Regardless of how it occurs, plagiarism is a theft of intellectual property and a violation of an ironclad rule demanding "credit be given where credit is due."

Source: (Writing Guides: Understanding Plagiarism.

<http://writing.colostate.edu/guides/researchsources/understandingplagiarism/plagiarismoverview.cfm>.

Accessed, May 25, 2012)

If you plagiarize in your work you could lose credit for the plagiarized work, fail the assignment, or fail the course. Each instance of plagiarism, classroom cheating, and other types of academic dishonesty will be

addressed according to the principles published in the CSU General Catalog (see page seven, column two: <http://www.catalog.colostate.edu/FrontPDF/1.6POLICIES1112f.pdf>).

Of course, academic integrity means more than just avoiding plagiarism. It also involves doing your own reading and studying. It includes regular class attendance, careful consideration of all class materials, and engagement with the class and your fellow students. Academic integrity lies at the core of our common goal: to create an intellectually honest and rigorous community. Because academic integrity, and the personal and social integrity of which academic integrity is an integral part, is so central to our mission as students, teachers, scholars, and citizens, we will ask to you sign the CSU Honor Pledge as part of completing all of our major assignments. While you will not be required to sign the honor pledge, we will ask each of you to write and sign the following statement on your papers and exams:

"I have not given, received, or used any unauthorized assistance."