

FOR435 Advanced Timber Harvesting

Instructor Information:

Instructors: Beth Dodson
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Office hours: open-door policy

Class Times: Two 1-hour lectures (T/R 8:30-9:20A), Stone Hall 217 unless otherwise arranged
One 8-hour lab (F 8:00A – 4:00P) – Note: we may run long or start early on some days-
advanced notice will be given. Lab will meet approximately 7 times during the semester.

Required Text: (notes)

Pre-requisite:

FORS 341

Course Descriptions:

The purpose of this course is to provide students with advanced knowledge and skills to apply, critically analyze, and evaluate various timber harvesting systems. This course covers the fundamentals of logging feasibility and cost analyses of various timber harvesting systems including the characteristics and performance of ground vehicles, cable and aerial systems; cost factors and cost analysis procedures; introduction to contracts, bidding, and sale administration procedures; safety issues; and environmental impacts of harvesting systems.

The laboratory components of this course will provide students with basic working knowledge to conduct logging feasibility and cost analyses of various timber harvesting systems. Students will also learn how to use some of the major software packages that can be used in analyzing various harvesting systems.

Course Learning Objectives:

- Develop a working knowledge of contracts and contract administration
- Understand cost factors and learn cost analysis procedures
- Understand safety issues associated with harvesting operations
- Understand environmental impacts of common harvesting systems, how they are minimized and tracked
- Develop an appreciation for factors involved with log and fiber procurement
- Hone interpersonal skills needed for the range of working relationships needed to be successful within the timber industry, broadly defined

Grading:

Please note, this class is offered for traditional letter grade only; it is not offered under the credit/no credit option.

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|------------------------------|------------|
| • Final project | 20% |
| • Lab exercises and homework | <u>80%</u> |
| Total | 100% |

In order for students to receive graduate credit for the course, a 5-10 page term paper addressing a current management issue, focusing on the use of forest operations to solve a complex natural resource problem, is required. The paper will include an introduction, literature review, presentation of the issue, discussion of the significance for management, conclusion, and references to literature cited.

Tentative course schedule:

When possible, lecture material will shift to match lab content.

Course topics:

- Skyline payload analysis
- Log scaling
- Equipment and job costing
- Production tracking
- Sale appraisal, RFP, bidding, bid evaluation
- Safety plans, insurance requirements, etc. (MLA)
- Timber sale administration
- Supply chain management (Wood supply game)
- Montana Forest Products Week: October 17-23 (potential Timber Tour options in Missoula and Kalispell)

Course Policies:

- All assignments are due at the BEGINNING of class unless otherwise specified. Late assignments will lose 10% of the potential points per day late.
- All work must be neat, legible and complete.
- All individual work will be submitted on-line through the class Moodle unless otherwise specified. Graded assignments will also be returned electronically. Use of "track changes" will greatly speed the return of resubmitted work.
- While you are allowed to work with fellow students on individual assignments, all submitted assignments must represent your own individual work.
- All course communication (announcements, assignments, schedule with due dates) will be via email and posted on the course Moodle, available through the UMOonline home page. The course Moodle can be accessed from any computer with internet access.
- Students with disabilities may request reasonable modifications by contacting the instructors. The University of Montana assures equal access to instruction for students with disabilities in collaboration with instructors and the Office of Disability Equity, which is located in Lommasson Center 154. The University does not permit fundamental alterations of academic standards or retroactive modifications.
- *All students must practice academic honesty. Academic misconduct is subject to an academic penalty by the course instructor and/or a disciplinary sanction by the University. All students need to be familiar with the Student Conduct Code. The Code is available for review online at [Student Conduct Code](#). Note that the Student Conduct Code also includes a requirement that masks be worn at all times in classrooms and shared transportation.*

COVID-Specific Policies:

- Mask use is required within the classroom.
- If you feel sick and/or are exhibiting COVID-19 symptoms, please don't come to class and contact the Curry Health Center at (406) 243-4330.
- If you are required to isolate or quarantine, you will receive support in the class to ensure continued academic progress. Please contact Beth to develop a plan to keep you engaged in the class.
- UM recommends students get the COVID-19 vaccine. Please direct your questions or concerns about vaccines to Curry Health Center.
- Where social distancing (maintaining consistent 6 feet between individuals) is not possible, specific seating arrangements will be used to support contact tracing efforts.
- Class attendance and seating will be recorded to support contact tracing efforts.
- Drinking liquids and eating food is discouraged within the classroom.
- Mask use is required in vehicles when traveling to field sites as part of class/fieldwork.
- Please note this class may be recorded.

- Transportation will be provided for all field activities and appropriate distancing will be accommodated to the extent possible. Each group will be assigned a vehicle and students will not share transportation with other groups.
- Students are allowed to drive their own vehicles to any field trip, but need to communicate with the instructor at least 48 hours prior to the day of the field trip. Students are welcome to, but not required to drive to field learning sites. Students who drive their own vehicles will not be reimbursed for mileage and are covered only by their own auto insurance. If students choose to drive together (car pool), please note the driver is liable for not only themselves but also the passenger (as with any private vehicle). If you have a passenger in your vehicle, we recommend that you follow all safety recommendations for UM group travel:
 - Face masks required in all shared vehicles.
 - If running heat or air conditioning, recirculating vehicle air should be disabled.
 - All occupants of shared vehicles should travel in the same vehicle for the duration of the trip. In cases where driver fatigue occurs, wipe down high touch areas in both seating areas with appropriate disinfectant before switching drivers.

Important Dates:

Deadline	Description
To 15 th instructional day	Students can drop classes on CyberBear with refund
16 th to 45 th instructional day	A class drop requires a form with instructor and advisor signature, a \$10 fee from registrar's office, student will receive a 'W' on transcript, no refund.
Beginning 46 th instructional day	Students are only allowed to drop a class under very limited and unusual circumstances. Not doing well in the class, deciding you are concerned about how the class grade might affect your GPA, deciding you did not want to take the class after all, and similar reasons are not among those limited and unusual circumstances. If you want to drop the class for these sorts of reasons, make sure you do so by the end of the 45 th

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The University of Montana assures equal access to instruction through collaboration between students with disabilities, instructors, and the [Office for Disability Equity \(ODE\)](#). If you think you may have a disability adversely affecting your academic performance or need accommodation due to COVID, and you have not already registered with ODE, please contact ODE in Lommason 154 or 406 243 2243. I will work with you and ODE to provide an appropriate modification.