

**FORS 444 – Forest Restoration and Utilization**  
**Spring Semester-2016**  
**3 Credits**

**Instructor and course information**

Instructor: Edwin J. Burke – SH 105 – 406-243-5157 edwin.burke@forestry.umt.edu  
Schedule: Lecture and Laboratory times to be announced. 1-2 hrs lecture at beginning of class each week; 6-8 hrs. laboratory exercises each week, generally on same day as lecture  
Required Texts: US Forest Service S-212 Chainsaw Training Course Text

**Course Schedule**

- Week 1 Introduction; Chainsaw terminology, maintenance and repair. Laboratory: Field techniques in saw maintenance and repair, hand-felling, limbing. Commercial log manufacture. Grapple skidding, hot and cold decking. Training will follow the S-212 Fireline Chainsaw Safety and Operations Course syllabus
- Week 2 Introduction to forest operations equipment. Laboratory: Individuals' familiarization with Skid- steer loader, 4wd tractor w. log grapple, articulated loader with log forks and 2 cu. yd. bucket. Practice with operation of equipment. Exercise held at School's sawmill at Lubrecht Experimental Forest.
- Week 3 Timber felling/ skidding-loading equipment/ sawmill equipment operation training, Week #1. Exercises held at dedicated felling areas and sawmills located at Lubrecht Experimental Forest. 1/3 of class at each activity area.
- Week 4 Timber felling/ skidding-loading equipment/ sawmill equipment operation training, Week #2. Exercises held at dedicated felling areas and sawmills located at Lubrecht Experimental Forest. 1/3 of class at each activity area.
- Week 5 Timber felling/ skidding-loading equipment/ sawmill equipment operation training, Week #3. Exercises held at dedicated felling areas and sawmills located at Lubrecht Experimental Forest. 1/3 of class at each activity area.
- Week 6 Quality control procedures and report production for forest restoration operations. Student teams of 2-3 will work on their first of the three principal activity topics (see 3, 4 & 5 above) with evaluation of overall skill, safety and reporting.
- Week 7 Quality control procedures and report production for forest restoration operations. Student teams of 2-3 will work on their second of the three principal activity topics (see 3, 4 & 5 above) with evaluation of overall skill, safety and reporting.
- Week 8 Quality control procedures and report production for forest restoration operations. Student teams of 2-3 will work on their third of the three principal activity topics (see 3, 4 & 5 above) with evaluation of overall skill, safety and reporting.
- Week 9 Class project area defined and teams assigned tasks according to each of the three principal activities: Planning/harvest, skidding and deck(s) management, milling/drying/storage.

- Week 10 Class project area defined and teams assigned tasks according to each of the three principal activities: Planning/harvest, skidding and deck(s) management, milling/drying/storage (cont.)
- Week 11 Class project area defined and teams assigned tasks according to each of the three principal activities: Planning/harvest, skidding and deck(s) management, milling/drying/storage (cont.)
- Week 12 Logging slash and residuals management. Residues sorting and marketing (bark, green slabs and edgings vs. dry residual values).
- Week 13 Logging slash and residuals management (cont.).
- Week 14 Burning of slash piles, preparation of roads and mill yards for interim period between semesters (Christmas break or summer).
- Week 15 Final evaluation of students' skills and project area evaluations by peers and instructor(s). Students' evaluation of instructors, course objectives and outcomes. Discussion of improvements to course.

### **Equipment and supplies**

Students are to have the following equipment and clothing for all class activities:

All-leather boots of at least 6" height

All-leather gloves

Full-brim hardhat (plastic) Cotton jeans, shirt and jacket

Chainsaw chaps, hearing and eye protection will be provided for all activities.

**APPROPRIATE USE OF PERSONAL PROTECTION EQUIPMENT IS MANDATORY!!!**

### **Meeting times and grading**

Class will meet at 08:30 on Saturday mornings and return to campus between 17:00 and 20:00 hrs, depending on week of semester. Grading will be based on attendance ( attendance at 4 complete class meetings for each credit received), participation in training and planning process for group, compliance with class safety and equipment operation regulations, group project completion and overall cooperation.