Introduction to Forestry Field Skills
SYLLABUS – FORS 130 – FALL 2020

Instructor: John Goodburn
Office location: 201A Forestry Bldg.
E-mail: john.goodburn@umontana.edu (best way to reach Instructor)
Office hours: Friday 1:00-3:00 pm & by appointment

Teaching Assistant: Christian Mercado
Office location: 403 Charles H. Clapp Building (CHCB)
E-mail: Christian.mercado@umontana.edu
Office hours: by appointment

Meeting Times & Locations: Monday or Wednesday, 2:00PM to 5:50PM,
Outdoor tent above Urey Underground lecture hall; Various field locations
(class divided and held outdoors during Fall 2020 for coronavirus mitigation)

Course Objectives: This course is focused on developing natural resources field techniques
through experiential learning on campus and in the field. Our objective is to provide classroom
and field experiences that introduce students to dendrology, orienteering, map reading, tree
measurements, and safe travel and teamwork in the field.

Required Text: No required textbook. PDFs of field manual chapters from will be provided

Required Field Equipment: sighting compass, diameter tape (Spencer 75’ retractable), and
“Cruzall” angle gauge (available for purchase online via provided links to online sources).

Requirements: Students must attend all class sessions, unless pre-approved. All or part of
course meetings will often occur outside. Students must come prepared with proper clothing
given the expected weather forecast (e.g., boots, warm clothes, hats/gloves, rain gear).
Temperatures can be significantly cooler at field locations and students should plan accordingly.
All necessary equipment will be also provided.

Grading: This course is offered for traditional letter grade – it is not offered under the credit/no
credit option.

This course will be graded on the following grading scale:
93-100 (A), 90-92 (A-), 87-89 (B+), 83-86(B), 80-82 (B-), 77-79 (C+), 73-76 (C), 70-72 (C-),
60-69 (D), <60 (F)

Grades will be assigned based on the following rubric:
Attendance and Participation: 12%
Field Exercise problem sets: 50% (five highest grades from six assignments)
Moodle Quizzes: 18% (five highest grades from six quizzes)
Final exam: 20%
Special Accommodations

Students with disabilities who need accommodations should see me privately after class or during my office hours to request reasonable modifications.

The University of Montana assures equal access to instruction for students with disabilities in collaboration with instructors and Disability Services for Students, which is located in Lommasson Center 154. The University does not permit fundamental alterations of academic standards or retroactive modifications. For more information, please consult Disability Services for Students.

UM Course Policies:

Students at the University of Montana have the responsibility to conduct themselves in a way that positively impacts the safety, welfare, or educational opportunities of others in the University community. Students are expected to act as responsible members of the community, respect the rights, privileges, and dignity of others, and refrain from actions that infringe upon the rights of others or interfere with normal University activities.

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.

Important UM deadlines for changing course options:

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<th>Description</th>
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<td>To 15th instructional day</td>
<td>Students can drop classes on CyberBear with refund &amp; no “W” on Transcript</td>
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<tr>
<td>16th to 45th instructional day</td>
<td>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.</td>
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<td>Beginning 46th instructional day</td>
<td>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, switching majors, 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 45th instructional day of the semester. Requests to drop must be signed by the instructor, advisor, and Associate Dean (in that order) so if you pursue this request, leave sufficient time to schedule meetings with each of these individuals (generally this will take at least 3-5 working days). A $10 fee applies if approved. Instructors must indicate whether the individual is Passing or Failing the class at the time of request.</td>
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## Tentative Course Schedule of Topics

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<th>Week/Date and Topic</th>
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| **Week 1**           | Course Introduction and separation into two sections  
Aug 24 (Half of students to attend Mon or Wed afternoons) |
| **Week 2**           | Distance measures, pacing, and introduction to compass  
8/31, 9/2 Field Exercises – pacing distance and compass; Location - Campus Oval |
| **Week 3**           | No Class due to Monday Labor Day Holiday 9/7  
9/7, 9/9 No Class M or W) |
| **Week 4**           | Introduction to clinometer for slope and tree height measures  
Sept 14, 16 Field Measurement of slope inclination and tree height |
| **Week 5**           | Field Exercises - Measuring tree height with clinometer  
Sept 21, 23 Location – Campus southeast corner wooded lawn |
| **Week 6**           | Trigonometry Review  
Sept 28, 30 Field Exercises - Measuring slope, direction, and horizontal distance – “M” trail |
| **Week 7**           | Introduction to tree diameter measurement and volume estimation  
Oct 5, 7 DBH tape use, Measuring tree diameter at breast height, tree and log volume |
| **Week 8**           | Field Exercises - Tree diameter measurement and volume estimation  
Oct 12, 14 Introduction to DBH tape care/repair |
| **Week 9**           | Review Tree measurements and Introduction to stand-level measures  
Oct 19, 21 Sampling concepts: trees per acre and basal area per acre |
| **Week 10**          | Forest Inventory I – Location – Larch Camp Stand up Pattee Canyon Rd.  
Oct 26, 28 Field Exercises –Sampling with Fixed Area plots |
| **Week 11**          | Forest Inventory II - Location Crazy Canyon Stand  
Nov 2, 4 Field Exercises - Variable Radius Plot sampling, stand inventory “cruising”  
Calculating basal area, trees per acre, species composition, and tree size distribution on Excel spreadsheet |
| **Week 12**          | No Class Monday or Wednesday due to Veterans Day Holiday 11/11  
Nov 9, 11 |
| **Week 13**          | Field Practicum Performance – Campus location north of Forestry Bldg and Oval  
Nov 16, 18 Review and Synthesis |