Course Overview
Silviculture is the application of ecological principles to the management of forest stands. This course offers a detailed treatment of modern silvicultural theory and methods. Specific topics include (but are not limited to): stand dynamics, density management, analysis of forest production, intermediate treatments, natural and artificial regeneration, and even- and uneven-aged silvicultural systems. In addition, this graduate course will explore an aspect of silviculture in-depth each week through reading and discussion of primary literature in a recitation.

Course Goals and Objectives
Students will demonstrate understanding of how ecological processes influence and are influenced by forest stand structure, composition and productivity, and how silvicultural strategies and tactics are used to manipulate ecological processes to desired ends. Students will demonstrate proficiency using stand assessment tools such as density management diagrams, and be able to articulate key differences between intermediate and regeneration treatments as well as between several types of even- and uneven-aged silvicultural systems.

Specific objectives for students (from the Society of American Foresters Standards, Procedures, and Guidelines for Accrediting Educational Programs in Professional Forestry):
- Demonstrate the ability to develop and apply silvicultural prescriptions appropriate to management objectives, including methods of establishing and influencing the composition, growth, and quality of forests, and understand the impacts of those prescriptions.
- Demonstrate the ability to analyze the economic, environmental, and social consequences of forest resource management strategies and decisions.

Course Prerequisites
F230, F311, NR220
Required Texts and Materials

Important Dates to Remember
Last Day to Add/Drop Classes: Jan 24th
Spring Break: Mar 14th – Fri, Mar 18th
Withdrawal Deadline: Mar 21st
Final Examination: May 10th, 7:30a-9:30a

Course Schedule
There will be three scheduled quizzes (*all dates below are TENTATIVE*), two midterms and a final exam over the course of the semester, as well as several assigned problem sets. Additional, unannounced, quizzes may also be given at the discretion of the instructor. All quizzes and exams are cumulative. Students enrolled in the graduate section of this course are required to attend and actively participate in a weekly discussion of peer-reviewed literature and to lead 2-3 discussions over the course of the semester. Graduate students are also required to complete a research paper on an aspect of silviculture related to their field of study (and approved by the instructor).

<table>
<thead>
<tr>
<th>What</th>
<th>When</th>
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<tbody>
<tr>
<td>Quiz 1</td>
<td>Feb 5th</td>
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<tr>
<td>Midterm 1</td>
<td>Feb 22nd</td>
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<tr>
<td>Quiz 2</td>
<td>Mar 7th</td>
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<td>Midterm 2</td>
<td>Mar 28th</td>
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<td>Quiz 3</td>
<td>Apr 15th</td>
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<tr>
<td>Final</td>
<td>May 10th</td>
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Basis for Final Grade

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<thead>
<tr>
<th>Assessment</th>
<th>Percent of Final Grade</th>
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<tbody>
<tr>
<td>Quizzes</td>
<td>22.5%</td>
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<tr>
<td>Assignments</td>
<td>15%</td>
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<tr>
<td>Midterm Exams</td>
<td>22.5%</td>
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<tr>
<td>Final Exam</td>
<td>15%</td>
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<td>Recitation Discussion</td>
<td>15%</td>
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<tr>
<td>Review Paper</td>
<td>10%</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>100%</strong></td>
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Grading Scale:

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<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>F</th>
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<tbody>
<tr>
<td>90-100</td>
<td>80-89</td>
<td>70-79</td>
<td>60-69</td>
<td>&lt;60</td>
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Course Policies

Late Work / Make-up Policy:
Late work may be submitted for a period of one week after the due date for 50% credit. Submissions that are more than one week late will not be accepted. Make up exams and quizzes MUST be approved and scheduled ahead of time. This policy may be relaxed at the discretion of the instructor given reasonable justification for the late work or missed exam/quiz (e.g. illness, family emergency).

Extra Credit Policy:
Extra credit assignments may be offered at the discretion of the instructor.

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:
Students are expected to attend all classes unless they are unwell or are unable to attend due to a University-sanctioned activity. For the purposes of this regulation, University-sanctioned activities include competitions, events and professional meetings in which students are officially representing the institution. Appropriate sanctioned activities include:
   a. Intercollegiate athletics;
   b. Collegiate club sports and competitions;
   c. Conferences and workshops recognized by the University not related to academics;
   d. Commitments on behalf of the University (ASCSU, band, etc.); and
   e. Professional activities recognized by the University related to academics.
Department heads or their designated representatives must approve sanctioned professional and departmental activities. Other sanctioned activities must be approved by the appropriate program director on record with the Division of Student Affairs offices or the Department of Athletics.

The instructor will make a reasonable effort to allow students to make up quizzes missed as a result of University-sanctioned activities or illness provided the instructor is informed of the absence prior to the missed class. Students should look to RamCT and/or fellow students for lecture material missed as a result of absences.

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:**
Final examination week is part of the regular semester. Student attendance shall be consistent with University policy.

If a student has three or more final examinations (not classes) scheduled for the same day or if conflicts of examination times occur, the student may negotiate a time change with the instructors involved. If the parties involved cannot find a mutually agreeable time, the Registrar's Office indicates which courses must be changed. **Note:** The Registrar’s Office must be notified at least one week prior to Final Examination Week to allow instructors time to make appropriate accommodations. It is the student’s responsibility to initiate negotiations.

Any student who has a conflict with the examination schedule must inform the instructor as soon as possible before the examination. If an agreement cannot be reached between the instructor and student as to the appropriateness of a make-up examination the student should appeal to the department head. [http://www.registrar.colostate.edu/final-exams](http://www.registrar.colostate.edu/final-exams)

**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, *et c.*., and have been warned may suffer a reduction in their final class grade. When emailing the instructor or TA, please include your full name, CSU ID, and the course number in your email.

**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."

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](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."

Library & Research Help
The CSU Libraries Help Desk provides research and technical assistance either in person at Morgan Library or by phone at 970-491-1841. Jocelyn Boice is the librarian supporting this course. Contact her by email at jocelyn.boice@colostate.edu or by phone at 970-491-3882 to ask questions or set up an appointment for in-depth research help.