PRINCIPLES OF SILVICULTURE
DEPARTMENT OF FORESTRY, WILDLIFE, & FISHERIES

COURSE OBJECTIVES

Course number, title, and credit hours:

FWF 312 Principles of Silviculture (3)

Catalog description:

Principles for treating forest stands to achieve selected silvicultural and managerial objectives. 1 lab. Prereq: CHEM 100. Coreq: PSS 210, FWF 311, and FWF 313.

Course objectives:

1.0 Know silvicultural terminology
   1.1 Define terms and processes important to tree growth
   1.2 Define silviculture/stand terms
   1.3 Identify functional components of silvicultural systems

2.0 Understand silviculture principles
   2.1 Explain tree growth functions by structural units
   2.2 Understand stand density affects upon tree and stand growth
   2.3 Describe stand growth as a functional unit and as a composite of individual trees
   2.4 Describe silvicultural tools appropriate for intermediate silvicultural operations
   2.5 Describe stand regeneration using the classic silvicultural methods

3.0 Apply silvicultural principles to field situations
   3.1 Use silvicultural principles to accomplish selected owner objectives including wildlife and recreation
   3.2 Modify silviculture systems to fulfill stand growth and regeneration requirements
   3.3 Analyze stand regeneration prescriptions critically
   3.4 Demonstrate the effects of stand density changes upon stand growth and individual tree growth
   3.5 Modify silvicultural operations/plans to accommodate wildlife habitat requirements
   3.6 Demonstrate silvicultural operations compatible with wildlife and wildland recreation objectives

References:


Additional references are listed on the Reserve Reading List and are available online from the Ag/Vet Library. A variety of articles from periodicals, chapters from books and reports from research centers will be used to present and illustrate the application of concepts and to amplify theoretical considerations.

Laboratory: Labs are designed to compliment and illustrate concepts presented in lecture.

Grading policy:

<table>
<thead>
<tr>
<th>Grading Item</th>
<th>Percentage</th>
<th>Due Date</th>
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</thead>
<tbody>
<tr>
<td>Hourly Exam #1</td>
<td>20%</td>
<td>Sept. 10</td>
</tr>
<tr>
<td>Hourly Exam #2</td>
<td>20%</td>
<td>Oct. 10</td>
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<tr>
<td>Hourly Exam #3</td>
<td>20%</td>
<td>Nov. 7</td>
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<tr>
<td>Final Exam</td>
<td>35%</td>
<td>Dec. 10</td>
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<tr>
<td>Lab Exercises &amp; Reports</td>
<td>25%</td>
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*The lowest grade of the items marked with an asterisk will be dropped. Each student must complete Final Exam, Lab Reports and 2 of 3 of the hourly exams. The final exam is comprehensive. No make-up exams will be given unless there are extraordinary circumstances.

Grading Scale:

- > 90% = A
- 80-89% = B
- 70-79% = C
- 60-69% = D
- <60% = F

Instructors:

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Chris Oswalt coswalt@utk.edu

Comments:

FWF 312 is a 3-hour course consisting of approximately 2 hours of lectures and 3 hours of laboratory per week. During the semester, the lecture contact amounts to 35+ hours — almost a single working week. This period of contact is supplemented by 10 or more lab periods. What you get out of this course is no different than anything else in life; it depends mainly on what you bring to it and what you put into it. This course addresses concepts and strives to develop an understanding of them rather than skills or how to do things. The student should develop a fresh perspective on forest dynamics.