

**SAULT COLLEGE OF APPLIED ARTS & TECHNOLOGY
SAULT STE MARIE, ON**



COURSE OUTLINE

Course Title: ADVANCED SILVICULTURE

Code No.: FOR315-3 Semester: 5

Program: INTEGRATED RESOURCE MANAGEMENT

Authors: BOB CURRELL/MARK HARVEY

Date: SEPT. 1997 Previous Outline Date: JUNE 1996

Approved:

Dean

September 9, 1997

Date

Total Credits: 3 Prerequisite(s):
Length of Course: 3 hrs/week Total Credit Hours: 48

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For additional information, please contact Brian Punch, Dean School of
Natural Resources (705) 759-2554, Ext. 687.

ADVANCED SILVICULTURE

FOR 315-3

COURSE NAME

CODE NUMBER**I. PHILOSOPHY/GOALS:**

Combining frequent field trips, lab exercises and lectures this course is designed to prepare students for the silvicultural management of Ontario's forests. The course explains the methods used to classify, regenerate and tend forest lands.

II. STUDENT PERFORMANCE OBJECTIVES:

Upon successful completion of this course the students will be able to:

1. Explain the value of Ecological Land Classification of forest lands in Ontario.
2. Classify forest sites and formulate management strategies using Ecological Land Classification systems.
3. Describe the silvics and ecology of Jack pine, Red pine and White pine forests.
4. Prescribe the management and regeneration of pine forest working groups.
5. Mark Red and White Pine stands for uniform shelterwood management.
6. Explain the silvics and ecology of Black spruce forest stands.
7. Choose the appropriate Silviculture harvesting system for the management of Black spruce.
8. Summarize the ecology of Boreal mixed wood forests and be able to manage these forest sites.
9. Evaluate a sustainable forestry management activity.
10. Maintain and operate stand tending equipment.

III. TOPICS TO BE COVERED:UNIT 1

Ecological Land Classification

- background
- review of soil descriptions
- F.E.C. systems in use in Ontario
 - N.W. Ontario FEC
 - North-eastern Ontario FEC
 - Algonquin Pine Forest FEC

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UNIT 2

Pine Management

- Red pine and White pine
 - silvics ecology
 - silvicultural harvesting, establishment, tending
 - tree marking for white and red pine management
 - promoting wildlife values in pine forests

- Jack pine
 - silvics, ecology
 - management
 - establishment, tending

UNIT 3

Spruce and Mixed wood Management

- Black spruce
 - silvicultural harvesting methods
 - management

- Boreal mixed woods (white spruce, poplar, white birch)
 - ecology
 - management

IV. METHODS OF EVALUATION

Tests (30%) - 2 tests

Assignments (60%) - including:

- soil descriptions
- site classification exercises
- White pine making exercise
- Jack pine and/or mixed wood assignment or field trip
- pesticide calculations and mixing
- vegetation management plan
- sustainable forestry audit
- assignment on the use and care of brushsaw for brushing and thinning

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Quizzes (10%)

- following guest lectures
- to evaluate reading assignments

Marking Scheme:

- A+ = 90% + consistently
- A = 80-89%
- B = 70-79%
- C = 60-69%
- R = < 60%

V. REQUIRED STUDENT RESOURCES

- Field Manual for Describing Soils
- Sault College Silvicultural Study Guide
- Forest Ecosystem Classification Manual for Central Ontario

VI. SPECIAL NOTES

Students with special needs (e.g. physical limitations, visual impairments, hearing impairments, learning disabilities) are encouraged to discuss required accommodations confidentially with the instructor.

Your instructor reserves the right to modify the course as he/she deems necessary to meet the needs of students.

Students must attend 80% or more of the classes to obtain a C grade or higher.