

SAULT COLLEGE OF APPLIED ARTS & TECHNOLOGY
SAULT STE. MARIE, ONTARIO

COURSE OUTLINE

Course Title: APPLIED SILVICULTURE

Code No.: FOR 354-5

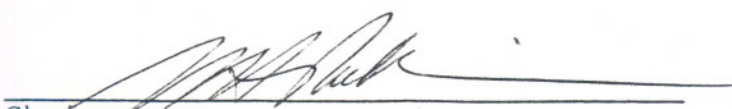
Program: FOREST MANAGEMENT TECHNOLOGY

Semester: SIX

Date: AUGUST 1989

Author: R. CURRELL

New: _____ Revision: X

APPROVED:  Aug 24/89
Chairperson Date

CALENDAR DESCRIPTION

APPLIED SILVICULTURE

FOR 354-5

COURSE NAME

COURSE NUMBER

PHILOSOPHY/GOALS:

This is a course designed to explain in depth the methods used to regenerate boreal forest sites, with an emphasis on Site Preparation and stand tending.

After completing the course, the student should be able to:

1. Write an overall regeneration prescription for a variety of site types in Northern Ontario.
2. Recommend the type of site preparation to carry out on any cutover forest area including (if applicable) the type of machine to use, and results expected.
3. Prescribe and supervise a forest tending project and be familiar with the safe operation of mechanical or chemical tending devices.

METHOD OF ASSESSMENT (GRADING METHOD):

| | |
|-----------------------|-----|
| Unit Tests (3) | 60% |
| Assignments | 20% |
| Technical Report | 10% |
| Field Tour and Report | 10% |

Unit tests will take place at the end of units 2, 4, and 5. Major assignments will include an oral presentation describing specific types of site preparation equipment (during unit 2) and development of silvicultural prescriptions for specific sites.

A technical report will be assigned in late October and will be due November 29, 1989.

A pass in the course will be 60% overall; marks will be cumulative. Students receiving less than 60%, but above 50% will be required to write a test during the rewrite period, covering all the course material.

Textbooks:

No textbook is required for this course though several publications are recommended as sources of background information:

Silvicultural Lab Manual, 1989, Sault College

A Guide to the Use of Mechanical Site Preparation Equipment in North Central British Columbia

Silvicultural equipment Reference Catalogue for Northern Ontario

A subscription to Silviculture magazine

Publications which provide information on specific subject areas will be distributed during the semester.

Topics studied:

Unit 1 - Management Systems

- Scandanavian harvesting and regeneration methods
- Ontario Boreal Forest Systems
 - clearcutting methods
 - strip shelterwood
 - harvesting and regeneration options (HARO)

Unit 2 - Scarification

- prime movers
- various types of equipment will be examined in detail, including descriptions, how and where to use, results expected
- student presentations

UNIT TEST 1

Unit 3 - Prescribed Burning

- site selection
- fire effects
- long and short term planning
- pre-engineering the cutover
- measurement and description of fuels

Unit 4 - Regeneration Systems

- how to manage and regenerate:
 - jack pine
 - black spruce
 - aspen and poplar
 - white spruce and mixed wood

UNIT TEST 2

Unit 5 - Forest Tending

- introduction to vegetation management;
- cleaning and thinning
- chemical tending (herbicides)
 - aerial and ground spraying
- mechanical tending
 - use of clearing saws and other mechanical tending methods

UNIT TEST 3