

SAULT COLLEGE OF APPLIED ARTS & TECHNOLOGY

SAULT STE. MARIE, ONTARIO

COURSE OUTLINE

Course Title: APPLIED SILVICULTURE

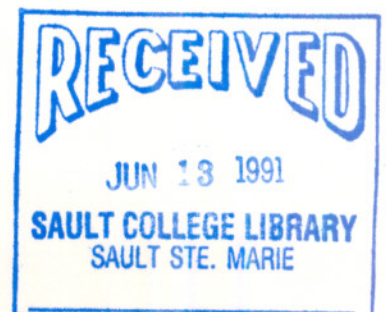
Code No.: FOR 354-5 Semester: Six

Program: FOREST MANAGEMENT TECHNOLOGY

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Date: JUNE 1991 Previous Outline Dated: AUGUST 1989

APPROVED:  *June 11 1991*
Dean Date



APPLIED SILVICULTURE

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TOTAL CREDIT HOURS: 80

PREREQUISITE(S): FOR351 Advanced Silviculture

I. PHILOSOPHY/GOALS:

This is a course designed to teach in depth the methods used to manage and regenerate boreal forest species. Harvesting, site preparation, regeneration and forest tending options will be described as they apply to the management of Jack pine, spruce and boreal hardwood species.

II. STUDENT PERFORMANCE OBJECTIVES:

Upon successful completion of this course, the student will:

1. Be competent to prepare a regeneration plan for a variety of site types.
2. Have the ability to correctly recommend the type of site preparation to carry out on any cutover area.
3. Be capable of prescribing and planning a mechanical or chemical tending operation.

III. TOPICS TO BE COVERED:

Unit 1 - Silvicultural Harvesting Systems

- systems used in Scandinavia
- systems used in Ontario
- careful logging systems
 - CLAGG, HARO

Unit 2 - Prescribed Burning

- site selection
- fire effects
- long and short term planning
- pre-engineering the cutover

TEST 1

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PICS TO BE COVERED: (cont'd)

Unit 3 - Scarification

- prime movers
- all categories of non-powered scarifiers will be examined as subjects of student presentations
- powered scarification equipment
- methods to evaluate scarification success

TEST 2

Unit 4 - Forest Tending

- cleaning or weeding forest stands
 - chemical weeding
 - non-chemical weeding alternatives
- thinning
 - thinning alternatives
 - use of clearing saws and other mechanical thinning equipment

TEST 3

Unit 5 - Regeneration Systems

- management and regeneration of:
 - Black spruce
 - Jack pine
 - Mixed woods
 - Aspen and Poplar

Unit 6 - Crop Planning

TEST 4

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IV. METHOD OF EVALUATION:

Unit Tests (4)	60%
Assignments	20%
Technical Report	10%
Quizzes and Attendance	10%

V. REQUIRED STUDENT RESOURCES:

Applied Silviculture Lab Manual

VI. ADDITIONAL RESOURCE MATERIAL AVAILABLE IN THE COLLEGE LIBRARY:

Science and Technology Series (Ontario) - A Silvicultural Guide for The Spruce Working Group, The Jackpine Working Group and The Poplar Working Group.

Management and Utilization of Northern Mixedwoods - Gov't of Canada, Northern Forestry Centre.

Alternate Strip Clearcutting in Upland Black Spruce - Gov't of Canada, Ottawa.

Vertical File Section -

Many short technical articles may be found in the vertical file section of the Library under:

- Forests and Forestry
- Forest Management
- Forest Machinery
- Reforestation

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VII. SPECIAL NOTES:

Major assignments will include an oral presentation describing a category of site preparation equipment, during unit 2, a short technical discussion of strip cutting and preparation of a general crop plan.

A technical report will be assigned in mid-October and due mid-November.

A pass in the course will be 60% overall, marks will be cumulative. There will be no rewrite tests in this course.

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.