DOC.#101

SAULT COLLEGE OF APPLIED ARTS & TECHNOLOGY

SAULT STE. MARIE, ONTARIO

COURSE OUTLINE

COURSE TITLE: APPLIED FOREST MANAGEMENT

CODE NO.: FOR370-4 SEMESTER: 6

PROGRAM: INTEGRATED RESOURCE MANAGEMENT TECHNOLOGY

AUTHORS: BOB CURRELL

DATE: JANUARY 1995 PREVIOUS OUTLINE DATED: DECEMBER 1994

APPROVED: _____ _____

DEAN, SCHOOL OF SCIENCES & NATURAL RESOURCES

DATE

APPLIED FOREST MANAGEMENT — **FOR370-4**

COURSE NAME — **COURSE NUMBER**

TOTAL CREDIT HOURS: 64

PREREQUISITE(S):

I. PHILOSOPHY/GOALS:

This course is designed to prepare students for participation in the silvicultural management of Ontario's forests.

Combining field trips, lectures and lab exercises, the course describes methods used to classify, regenerate and tend forest lands, using ecosystem and sustainable forestry practices.

II. STUDENT PERFORMANCE OBJECTIVES:

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

1. Explain the value of ecological classification of Ontario's forest lands.
2. Classify forest sites using Forest Ecosystem Classification systems.
3. Describe the Ontario Growth and Yield Program and understand how to establish and measure plots used in this project.
4. Summarize how Timber Management Planning is carried out on crown land in Ontario and describe the contents of a Timber Management Plan.
5. Describe the selection system of tolerant hardwood management.
6. Evaluate the grade of tolerant hardwood trees and identify major defect types on these trees.
7. Select the most appropriate management techniques to grow red, white or jack pine.
8. Describe research underway to evaluate the impacts of forest harvesting on terrestrial and aquatic ecosystems.
9. Design a proposal to carry out vegetation management in an efficient and ecologically acceptable manner.

APPLIED FOREST MANAGEMENT — COURSE NAME

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III. TOPICS TO BE COVERED:

1. Site Classification in Ontario

   - review of soil and vegetation features of importance to field site classification

   - FEC Systems
     - Northwestern-Northcentral Ontario
     - Northern Region
     - Algonquin Pine Forest
     - Long-term Ecological Research Program for Ontario

2. Ontario's Growth and Yield Program

3. Timber Management Planning

   - the planning process
   - background information needed to prepare a plan
   - information contained in the plan

TEST #1

4. Tolerant Hardwood Management

   - management systems
   - Selection Management
     - improvement cutting
     - defect identification
     - tree grading

     (2 field trips)

5. Pine Management

   - white pine management
   - red pine management (1 field trip)
   - jack pine management

TEST #2

6. Harvesting Impacts

   - research underway to study effects on forest and aquatic ecosystems

7. Mixedwood Management

8. Vegetation Management Alternatives

TEST #3

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IV. EVALUATION METHODS:

Tests 50%

- tests following topics 2, 5 and 7

Assignments 40%

- including
  - soil descriptions
  - site classification exercises
  - hardwood tree grading

Quizzes 10%

- following guest lectures
- to evaluate reading assignments

Marking Scheme:

A+ = 91-100% A = 81-90% B = 71-80% C = 61-70% R = <60%

V. REQUIRED STUDENT RESOURCES:

Field Manual for Describing Soils

Silviculture Study Guide

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.