

SAULT COLLEGE OF APPLIED ARTS & TECHNOLOGY

SAULT STE. MARIE, ONTARIO

ON VAX # 209.
Revised
May, 1986

COURSE OUTLINE

Course Title: Descriptive Dendrology II
Code No.: FOR 107-3
Program: Forestry
Semester: 5
Date: June 13, 1983
Author: D. MURPHY

New: _____ Revision: X

APPROVED:

Alan. Rubin
Chairperson _____ Date _____

CALENDAR DESCRIPTION

Descriptive Dendrology

Course Name

FOR 107-3

Course Number

PHILOSOPHY/GOALS:

A systematic study of tree and shrub winter identification features. After successfully completing this course, students should be able to identify all Ontario commercial species in the field in the winter, as well as many of the less important trees and shrubs. Students will have a good basic knowledge of ground flora and most aspects of forest sites.

METHOD OF ASSESSMENT (GRADING METHOD):

Tree & Shrub ident: 40% of mark

Lecture tests: 30% of mark

A 90%

A 85%

B 80%

B 70%

C 70%

C 55%

Plant ident: 20% of mark

A 90%

B 80%

C 70%

Lab drawings, Descriptive sheets, and Seed report: 10% of mark

TEXTBOOK(S):

Hosie R. C., 1979. Native Trees of Canada, 8th. ed., Can. Forest. Ser. 380 pp.

White J. H., 1980. The Forest Trees of Ontario, 7th. ed., M.N.R., 114 pp.

Peterson & McKenny, 1968. A Field Guide to Wildflowers, Houghton Mifflin, 420 pp.

DESCRIPTIVE DENDROLOGY

FOR 107-3

SPECIFIC OBJECTIVES:

The student will identify with 70% accuracy:

Twigs and other external features of major trees and shrubs

Seedlings of major tree species

Fruit of major tree species

Up to 75 forest plants

The student will prepare a report on tests for seed viability and germination percentage.

The student will achieve a minimum of 55% on tests which cover lecture material. This will include:

Silvics of Canadian tree species

Structure, function, storage, and sorting of tree seed

Advantages and disadvantages of pure and mixed stands, and of even and uneven age stands

Site quality, and determining factors of site

Crown classification

Stocking and stand density

REFERENCE TEXTS:

Arnold L.N., Martin A.C., Herbert S.Z.: American Wildlife & Plants, General Publishing, 500 pp.

Anonymous: Seeds of Woody Plants in the United States, U.S. Dept. of Agriculture Handbook, 450-883 pp.

Harlow Harrar & White: Textbook of Dendrology, 6th. ed., McGraw Hill, 510 pp.

Fowells H.A.: Silvics of Forest Trees of the United States, U.S. Dept of Agriculture.

Cunningham G. C.: Forest Flora of Canada, Bulletin 121, Dept. of Northern Affairs, 144 pp.

DESCRIPTIVE DENDROLOGY
FOR 107-3
LECTURES

| Topic No. | Periods | Topic Description | Reference |
|-----------|---------|--|-----------|
| 1 | 1 | <u>Seeds</u> -structure -types of germination -viability | |
| 2 | 1 | <u>Silvics</u> -History -progress -future outlook | |
| 3 | 2 | <u>Stands</u> -pure and mixed -even and uneven | |
| 4 | 2 | <u>Site</u> -plant indicators -volume or yield -soil -height growth | |
| 5 | 4 | <u>Factors Affecting Site</u> -climatic -edaphic -physiographic -biotic -fire | |
| 6 | 1 | <u>Stocking & Density</u> -differences -extent of crowding -yields -crown classification | |
| 7 | 4 | <u>Silvics</u> -silvics of major eastern species | |
| 8 | 1 | <u>Seedlings</u> -establishment -survival | |

DESCRIPTIVE DENDROLOGY
FOR 107-3
LABS

| Topic No. | Periods | Topic Description | Reference |
|-----------|---------|--|-----------|
| 1 | 14 | <u>Twigs</u> -identification of approximately 47 species -descriptive sheets to cover twigs, bark, flowers, fruit | |
| 2 | 2 | <u>Viability & Germination</u> -seeds tested and germinated -report on results | |
| 3 | 10 | <u>Forest Plants</u> -identification -communities | |
| 4 | 4 | <u>Field Trips</u> | |
| 5 | 2 | <u>Seedlings</u> -identification of major tree speices | |