

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

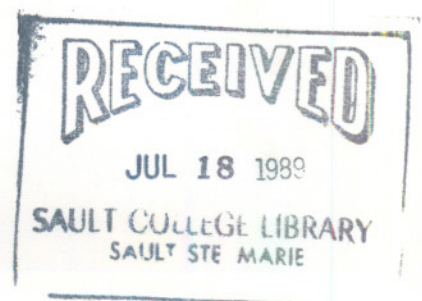
COURSE OUTLINE

Course Title: DESCRIPTIVE DENDROLOGY (FALL)
Code No.: FOR 102-4
Program: FORESTRY
Semester: 1
Date: JUNE, 1989
Author: DERROLL MURPHY

New: _____ Revision: X

APPROVED: *[Signature]*
Chairperson

July 10/89
Date



CALENDAR DESCRIPTION

DESCRIPTIVE DENDROLOGY

FOR 102-4

Course Name

Course Number

PHILOSOPHY/GOALS:

A systematic study of structural characteristics of trees and shrubs, the identification of Canadian species by leaf features, their relationships to one another and a recognition of their dynamic role in forest ecology.

Coniferous species will be looked at in considerable detail including twig bark and growth characteristics.

After successfully completing this course, students should be able to recognize all Ontario commercial tree species when trees are in the leafy condition as well as a considerable number of less important species.

METHOD OF ASSESSMENT (GRADING):

Tree Ident: Deciduous - 40% of mark accumulative lab and field
Coniferous - 20% of mark tests.

A+ 95%
A 90%
B 80%
C 70%

Leaf Collection:
C-50% 10% of mark

A+-90% A-85% B-70%

Lecture tests:

2 tests - 20% of mark

A+ 90%
A 85%
B 70%
C 55%

Key Construction Descriptive sheets Drawings - 10% of mark

Lab and field test will be frequent and accumulative. If a test is missed for a good reason, be sure and notify the instructor so you will not be given zero for that particular test. If more than two tests are missed without a satisfactory reason, student will be subject to a fast R.

A rewrite will be necessary if a minimum of a C grade is not obtained in Tree Ident or lecture tests. To be eligible for a rewrite, marks must be within 10% of a C grade.

The highest grade obtainable on a rewrite is a C.

A satisfactory leaf collection is a requirement of the course.

TEXTBOOK(S):

Hosie, R.C., 1979. Native Trees of Canada, 8th. ed, Canadian Forestry Service, 380 pp.

SPECIFIC OBJECTIVES	TECHNICIAN COMPETENCY BENCHMARK																						
Construct a dichotomous key for the identification of seven predetermined tree species.	2967.04																						
Describe physiological functions of tree tissue, such as: buds, roots, leaves, bark and wood.	2968.02																						
Describe physiological processes such as: tropisms and sprouting.	2968.02																						
Explain derivation of common names for tree species.	2970.01																						
Explain derivation and use of scientific names for the flora.	2970.01																						
Explain history and use of plant classification systems.	2968.02																						
Compare and contrast flowers and fruit under the following headings: Features, Types and Functions.	2968.02																						
List silvical characteristics common to coniferous species.	2968.02																						
Identify, locate and describe major forest regions, and list the major tree species of each.	2968.02																						
Describe silvical characteristics of major, Western Canadian tree species.	2968.02																						
Identify the following twenty commercially important tree species in the leafy condition to a 90% accuracy:	2970.01																						
<table style="border: none; margin-left: 20px;"> <tr> <td>Ce</td><td>Ew</td><td>Po</td><td>Bd</td><td>Bf</td><td>Mh</td><td>Ms</td><td>Ta</td><td>Aw</td><td>Ab</td><td>Or</td> </tr> <tr> <td></td><td>Ow</td><td>He</td><td>Pj</td><td>Pr</td><td>Pw</td><td>Sb</td><td>Sw</td><td>Bw</td><td>By</td><td></td> </tr> </table>	Ce	Ew	Po	Bd	Bf	Mh	Ms	Ta	Aw	Ab	Or		Ow	He	Pj	Pr	Pw	Sb	Sw	Bw	By		
Ce	Ew	Po	Bd	Bf	Mh	Ms	Ta	Aw	Ab	Or													
	Ow	He	Pj	Pr	Pw	Sb	Sw	Bw	By														
Given the scientific name for twenty commercially important tree species, write the common name.	2970.01																						
Given the common name for twenty tree species, write the accepted species abbreviations.	2967.04																						
Identification, collection, and preservation of neatly labelled dendrology specimens will be demonstrated by submission of a leaf collection of twenty predetermined species of tree leaves.	2970.01 2967.04																						
Identify up to fifty-five deciduous tree and shrub species by leaf, and up to twenty-five coniferous species by leaf, twig and fruit.	2970.01 2967.04																						

DESCRIPTIVE DENDROLOGYLABS

<u>Topic No.</u>	<u>Periods</u>	<u>Topic Description</u>	<u>References</u>
1	2	<u>Maple Family</u> - leaf terms - identification of 6 species - descriptive sheets - chart	
2	2	<u>Birch Family</u> - using a key - identification of 5 species - descriptive sheets - short field trip	
3	2	<u>Beach Linden and Olive Family</u> - identifying with a key, 8 species - descriptive sheets - short field trip	
4	2	<u>Rose Family</u> - identification of 7 species - descriptive sheets - outside test	
5	2	<u>Willow or Poplar Family</u> - identification of 8 species - descriptive sheets - drawings	
6	2	<u>Walnut and Elm Families</u> - identification of 7 species - descriptive sheets - drawings	
7	2	<u>Shrubs</u> - identification of 11 shrubs - wildlife uses, other uses - descriptive sheets	
8	2	<u>Pines</u> - identification of 4 species - drawings, foliage and fruit	
9	2	<u>Spruce</u> - identification of 5 species - descriptive sheets - field trip	

LABS

Topic No.	Periods	Topic Description	References
10	2	<u>Fir and Cedar</u> - identification of 7 species - descriptive sheets - field trip	
11	4	<u>Field Trip</u> - review of conifers - major outside test	
12	2	<u>Western Pines</u> - identification of 5 species - comparison with eastern pines - descriptive sheets	
13	2	<u>Western spruce, fir, hemlock and cedar</u> - identification of 6 species - descriptive sheets	
14	2	<u>Miscellaneous species</u> - a look at approximately 20 species - southern and exotic	

DESCRIPTIVE DENDROLOGY

FOR 102-4

LECTURES

Topic No.	Periods	Topic Description	References
1	1	<u>Course Outline</u> - Explanations of handouts, leaf collection, marking, etc.	
2	2	<u>Keys</u> - construction and use of keys	
3	1	<u>Nomenclature</u> - why and how species are named	
4	1	<u>Classification of plants</u> - history and use of classification	
5	1	<u>Flowers and Fruit</u> - details on species studied in labs	
6	1	<u>Conifers</u> - botanical features of Pinaceae family	
7	2	<u>Forest Regions</u> - 8 regions - local sections	
8	1	<u>Movie</u> - Tree Portraits - Boreal Forests	
9	2	<u>Silvics</u> - silvics of major western species	