

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

COURSE OUTLINE

COURSE TITLE: DESCRIPTIVE DENDROLOGY II

CODE NO.: FOR 107-3 SEMESTER: 2

PROGRAM: FORESTRY/RENEWABLE RESOURCE/FISH & WILDLIFE/  
PARKS & OUTDOOR RECREATION/ABORIGINAL RESOURCE  
TECHNICIAN PROGRAM

AUTHORS: MARK HARVEY/DON HALL

DATE: JANUARY 1997 PREVIOUS OUTLINE DATED: NOV 1994

APPROVED: *[Signature]* *Jan 6/97*  
DEAN DATE

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TOTAL CREDIT HOURS: 48

PREREQUISITE(S): FOR102-3

**I. PHILOSOPHY/GOALS:**

Students will gain the skill of winter identification of major tree and shrub species that are representative of the forest regions and urban areas of Ontario. Students will also identify dwarf woody plants and herbs commonly found in Ontario woodlands. The silvics of tree species and the ecology of plant associations will be studied to complement the identification of plant species.

**II. STUDENT PERFORMANCE OBJECTIVES:**

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

1. Identify, in the winter conditions important deciduous tree and shrub species indigenous to Ontario.
2. Identify, in the winter conditions, selected exotic deciduous tree species commonly planted in Ontario.
3. Identify selected herbs in the summer condition that are representative of important forest site types found in Central and Northern Ontario.
4. Recognize key identification features found on the stems, overwintering buds, foliage and flowering structures of herbs, shrubs and trees common in Ontario.
5. List components of applied seed biology.
6. List the important silvical characteristics of major tree and shrub species found in Ontario.
7. Using an ecological approach, discuss the structure and development of important stand types and plant associations found in Ontario.

**III. TOPICS TO BE COVERED:**

1. Identification of trees and shrubs in the winter condition including seed bearing structures.
2. Identification of herbs in the summer condition.
3. Silvical characteristics of selected tree species.
4. Applied seed biology.
5. Morphological characteristics of stems and flowers used for plant identification purposes.
6. Forest stand development and structure from early to late succession.
7. The site requirements of important plant associations of the Boreal and Great Lakes St. Lawrence Forest Regions.  
Climatic, geological and biological characteristics of some forest regions of Ontario.
9. Demonstrate a thorough understanding of the silvical characteristics of one northern Ontario tree species by making an oral presentation and answering questions.

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IV. EVALUATION METHODS:

A+ - 95; A - 90; B - 80; C - 70;

Tree, Shrub and Plant identification tests. 70%.

Attendance, Participation and Assignments 10%

Lecture Tests 20%  
100%

Students should plan on identification tests (either in lab or in the field) virtually every week.

If a class is missed for a good reason, it is important that the student promptly discuss the absence with his/her instructor. If the absence is not explained within a reasonable period of time (typically one week), the student will receive a grade of zero for any tests missed, and may lose attendance marks as well.

At the instructor's discretion, a rewrite test may be allowed for students combining participation and good attendance with a final mark in the 60 - 70% range. Rewrites will normally consist of a single test (both identification and written material) covering the whole year's work. The highest grade achievable on a rewrite test is "C".

V. REQUIRED STUDENT RESOURCES:

Hall, Don 1996. Descriptive Dendrology, FOR107 Study Guide, for classroom delivery, School of Natural Resources, Sault College, 159pp.

\* Hall, Don 1996. Descriptive Dendrology, FOR107 Study Guide, for Distance Education delivery, School of Natural Resources, Sault College, 159pp.

Chambers, Legasy and Bentley. 1996. Forest Plants of Central Ontario. Lone Pine Publishing.

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

Farrar, J. L. 1995. Trees in Canada, Fitzhenry and Whiteside/Canadian Forestry Service.

(\* for Distance Education Students only)

~~INDEX NAME~~ ~~BOOK SECTIONS AVAILABLE IN THE COLLEGE LIBRARY~~  
 BOOK SECTION:

Anonymous: Seeds of Woody Plants in the United States, U.S. Dept. of Agriculture Handbook, 450-883 pp. SD402.U5

Arnold L.N., Martin A.C., Herbert S.Z.: American Wildlife & Plants, General Publishing, 500 pp. QL756.M27 (One copy is available for library use only, ask at the main desk.

Baldwin, K.A. and Sims, R.A. 1989. Common Forest Plants in Northwestern Ontario. Forestry Canada - O.M.N.R., NWOFTDU Thunder Bay, Ont. 344pp.

\* Foster, S. & A. Duke. Peterson Field Guide to Medicinal Plants (Eastern Central). 1990. Houghton Mifflin Publishers. ISBN 0-395-46722-5

Fowells H.A.: Silvics of Forest Trees of the United States, U.S. Dept. of Agriculture. SD395.U5

Grimm W.C.: Recognizing Native Shrubs, Stackpole Penn. 1966 QK481.G8

Harlow Harrar & White: Textbook of Dendrology, 6th ed., McGraw Hill, 10 pp. QK481.H32

\* Kavasch, E.B. Guide to Northern Wild Edibles. 1981. Hancock House Publishing Co., Vancouver, B.C. ISBN 0-888-39-090-4

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

Sims, R.A., Kershaw, H.M, and Wickware, G.M. 1990. The Autecology of Major Tree species in the North Central Region of Ontario. N.W. Ont. For. Tech. Dev. Unit, O.M.N.R., Thunder Bay, Ont. - For. Dan. Sault Ste. Marie, Ont. COFRDA REP. 3302 NWOFTDU TECH. REP. 48 126pp.

Soper, J.H., Heimbürger, M.L., 1985. Shrubs of Ontario. Royal Ont. Museum

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#### VII. SPECIAL NOTES:

Safety boots, hard hats and proper winter clothing are required for all outdoor lab work.

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.