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SAULT COLLEGE OF APPLIED ARTS & TECHNOLOGY  
SAULT STE MARIE, ON



COURSE OUTLINE

Course Title: **TREES AND SHRUBS**

Code No.: **NRT102-3** Semester:

Programs; Forestry, Fish & Wildlife, Parks &  
Outdoor Recreation/Aboriginal  
Resource Technician

**Author:** Don **Hall**

Date: **JUNE 98** Previous Outline Date: JUN97

Approved:  \_\_\_\_\_ .y^v^ ee^/^r  
Dean, Natural Resources Programs **Date**

**Total Credits:** 3 **Total Credit Hours;** 48

**Length of Course:** 3 hrs/week X 16 weeks

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*For additional information, please contact Brian Punch, Dean, Natural Resources Programs  
(705) 759-2554, Ext. 688.*

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PREREQUISITE(S): NONE

### **I. 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 studied in considerable detail including twig, bark and growth characteristics.

After successfully completing this course, students should be able to recognize all Northern Ontario, and many Southern Ontario trees when they are in the leafy condition.

### **II. STUDENT PERFORMANCE OBJECTIVES:**

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

1. Identify all major Northern Ontario trees and shrubs in the summer condition.
2. Identify seedlings of major Northern Ontario commercial tree species, and a few non-commercial tree species.
3. Identify, using scientific names, Ontario commercial tree species, to 90% accuracy.
4. Identify the more common of the Southern Ontario and exotic trees.
5. Construct and use an identification key.
6. Associate scientific names with common names for Northern Ontario trees and shrubs.
7. Associate all native Northern Ontario trees (and some shrubs) with silvical characteristics such as longevity shade tolerance, site requirements and range in Ontario.
8. Appreciate the aesthetic, cultural and historical values of Ontario trees and shrubs.
9. Use the tree species abbreviations most commonly encountered in Ontario.

### **III. TOPICS TO BE COVERED:**

1. Identification of deciduous trees and shrubs in the summer condition (ongoing, weeks 1-11)
2. Identification of coniferous trees and shrubs (ongoing, weeks 11-15)
3. Construction and use of keys (2 weeks)
4. Silvical characteristics of trees and shrubs (ongoing, week 1-15)

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#### IV. LEARNING ACTIVITIES:

1. Use textbooks, mounted specimens, study guide, multimedia guide, and video to study the key identifying features of trees.
2. Participate in at least 4 outings in the Sault College Outdoor Laboratory. These will typically include field instruction in tree/shrub identification and an identification test of species studied in previous weeks.
3. Collect, press and mount leaves of locally common deciduous trees and shrubs.
4. Identify and collect cones and foliage of locally common coniferous trees.
5. Construct a dichotomous key to the leaves of 7 tree or shrub species.
6. Use textbooks and mounted specimens to study the identification and most important silvical characteristics of major southern Ontario tree species.
7. Participate in at least 3 off-campus tree/shrub identification field trips. These will typically include instruction in identification and a field test of species studied in previous weeks.

#### V. EVALUATION METHODS:

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

Tree and Shrub Identification Tests	65%
Theory Tests	20%
Attendance, Assignments, Keys	15%

Students should plan on identification tests (either in lab or in the field) virtually every week. Also, identification keys will be constructed on a weekly basis. Keys should be maintained in an up-to-date lab book. The lab book must be brought to every lab class, as it may be collected for marking (without warning) at any time.

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".

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**VI. REQUIRED STUDENT RESOURCES:**

Farrar, J.L. 1995. Trees in Canada, Canadian Forestry Service. 502 pp.

NRT102 - Trees and Shrubs Study Guide (available in bookstore)

Chambers, Brenda & Karen Legasy. Forest Plants of Central Ontario, Lone Pine Publishing & Queen's Printer for Ontario. 1996

Hardhat; Safety Boots; Hand Lens, Duo-tang folder for lab notes

**VII. ADDITIONAL RESOURCE MATERIALS AVAILABLE IN THE COLLEGE LIBRARY BOOK SECTION:**

Grimm W.C. Recognizing Native Shrubs, Stackpole P.A. Qk481 .G8

Harlow & Harran & White - Textbook of Dendrology - 6th ed. McGraw Hill 510 pp. QK481H32

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

Montgomery F. H. Trees of the Northern United States & Canada, Frederick Wayne & Co., NY 144 pp. QK486C2M6

Rowe D. S. Forest Regions of Canada, Supply & Services Canada SD145.R6

Soper, James H. and M. L. Heimburger. Shrubs of Ontario. Royal Ontario Museum

White J. H. Hosie R.C. The Forest Trees of Ontario, 7th ed., MNRQK486.05W48

**VIII. SPECIAL NOTES:**

**HARD HATS MUST BE WORN ON ALL FIELD TRIPS. SNOWSHOES MAY BE REQUIRED AS WELL.**

Special Needs

If you are a student with special needs (eg. Physical limitations, visual impairments, hearing impairments, learning disabilities), you are encouraged to discuss required accommodations with the instructor and/or contact the Special Needs Office, Room E1204, Ext. 493, 717 or 491 so that support services can be arranged for you.

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### Plagiarism

Students should refer to the definition of "academic dishonesty" in the "Statement of Students Rights and Responsibilities."

Students who engage in "academic dishonesty" will receive an automatic failure for that submission and/or such other penalty, up to and including expulsion from the course, as may be decided by the professor.

In order to protect students from inadvertent plagiarism, to protect the copyright of the material referenced and to credit the author of the material, it is the policy of the department to employ a documentation format for referencing source material.

### Advanced Standing

Students who have completed an equivalent post-secondary course should bring relevant documents to the Coordinator, Natural Resources Programs.

### Retention of Course Outlines

It is the responsibility of the student to retain all course outlines for possible future use in gaining advanced standing at other post-secondary institutions.

Substitute course information is available at the Registrar's Office.

## **IX. PRIOR LEARNING ASSESSMENT:**

Please contact the Prior Learning Assessment Office (E2203) for further information.