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SAULT COLLEGE OF APPLIED ARTS & TECHNOLOGY

SAULT STE. MARIE, ONTARIO

COURSE OUTLINE

COURSE TITLE: DESCRIPTIVE DENDROLOGY

CODE NO.: FOR 102-3 SEMESTER: I

PROGRAM: FORESTRY

AUTHOR: DON HALL

DATE: MAY 1994 PREVIOUS OUTLINE DATED: NOVEMBER 1992

APPROVED: _____ _____

DEAN, SCHOOL OF SCIENCES & NATURAL RESOURCES — DATE

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DESCRIPTIVE DENDROLOGY — FOR 102-3

COURSE NAME — COURSE NUMBER

TOTAL CREDIT HOURS: 48

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 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.

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 a 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.

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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)

IV. LEARNING ACTIVITIES:

1. Use textbooks, mounted specimens, study 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.

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V. EVALUATION METHODS:

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

Regular Tests - Identification, silvics and theory material	85%
Keys, Collections, other assignments	15%

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 in 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".

VI. REQUIRED STUDENT RESOURCES:

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

Forestry 102 Descriptive Dendrology Study Guide (available in bookstore)

Hardhat

Safety Boots

Hand Lens

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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

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

Urquhart F. A. The Ontario Leaf Album Univ. of Toronto Press 72 pp.
QK486O5U7

White J. H. Hosie R.C. The Forest Trees of Ontario 7th ed., MNR
QK486.05W48

RESERVE SECTION:

Hall, D.B. 1989. Video - Conifers and Deciduous Trees in the Summer Condition, Sault College

VIII. SPECIAL NOTES:

Hard hats must be worn on all field trips. Snowshoes may be needed.

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.

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