

SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY

SAULT STE. MARIE, ONTARIO



Sault College

COURSE OUTLINE

COURSE TITLE: TREES AND HERBACEOUS PLANTS
CODE NO. : NRT107 **SEMESTER:** 2
PROGRAMS: FORESTRY, PARKS & OUTDOOR RECREATION, FISH & WILDLIFE TECHNICIAN, ABORIGINAL RESOURCE TECHNICIAN
AUTHOR: DON HALL
DATE: DEC 2003 **PREVIOUS OUTLINE DATED:** DEC 2002
APPROVED:

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TOTAL CREDITS: 3
PREREQUISITE(S): None
HOURS/WEEK: 48

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School of Technology, Skilled Trades & Natural Resources
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I. COURSE DESCRIPTION:

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 tree, shrub and herbaceous plant species.

II. LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:

Upon successful completion of this course, the student will demonstrate the ability to:

1. Identify in the winter condition, all deciduous trees and shrubs commonly encountered in northern Ontario woodlands.

Potential Elements of the Performance:

- for a particular tree or shrub:
 - assess features including buds, twigs, bark, silhouette, and ecological associations
 - determine which features are best applied to the identification task at hand
 - apply knowledge of and experience with key features to correctly identify the tree or shrub
- correctly spell common names of all deciduous trees and shrubs commonly encountered in northern Ontario woodlands
- associate common names with Latin names for all deciduous trees and shrubs commonly encountered in northern Ontario woodlands
- recognize the seeds and seedlings of the most common deciduous trees in Ontario woodlands

This learning outcome will count for approximately 45% of the final mark

2. Associate key identification features with the common names of commercially important western Canadian coniferous trees.

Potential Elements of the Performance:

- recognize which western Canadian conifers are most commercially important
- associate key features with common names

This learning outcome will count for approximately 6% of the final mark

3. Construct graphics-based twig keys to family groups of deciduous trees and shrubs commonly encountered in northern Ontario woodlands.

Potential Elements of the Performance

- evaluate the relative values of key features used to differentiate twigs
- arrange key features into a hierarchical structure
- concisely and neatly illustrate the hierarchical structure in the form of a graphic, dichotomous key

This learning outcome will count for approximately 7% of the final mark

4. Identify twigs using dichotomous keys

Potential Elements of the Performance:

- associate technical terms with their definitions
- evaluate options set forth in a dichotomous word key
- follow a dichotomous word key in an orderly, systematic manner

This learning outcome will count for approximately 5% of the final mark

5. Identify 54 dwarf woody or herbaceous plants commonly encountered in northern Ontario woodlands.

Potential Elements of the Performance

- assess features such as flower colour, flower structure, size, configuration of leaves and overall appearance.
- determine which features are best applied to the identification task at hand
- apply knowledge of and experience with key features to correctly identify the plant

This learning outcome will count for approximately 25% of the final mark

6. Associate all native northern Ontario deciduous trees (and some shrubs) with silvical characteristics such as longevity, shade tolerance, site requirements and range in Canada.

This learning outcome will count for approximately 12% of the final mark

III. TOPICS:

Note: These topics will not necessarily be explored as isolated learning units, or in the order presented below:

1. Construction of graphic-based keys
2. Use of dichotomous keys
3. Identification of deciduous trees and shrubs commonly encountered in northern Ontario woodlands
4. Identification of dwarf woody and herbaceous plants commonly encountered in northern Ontario woodlands.
5. Key features of commercially important western Canadian coniferous trees.

IV. REQUIRED RESOURCES/TEXTS/MATERIALS:

1. Farrar, J.L. 1995. Trees in Canada, Canadian Forestry Service. 502 pp.
2. Hall, Donald B. 2004. NRT 107 Trees and Herbaceous Plants Study Guide (available in campus shop)
3. Chambers, Legasy and Bentley. 1996. Forest Plants of Central Ontario. Lone Pine Publishing.
4. Hardhat, Safety Boots.

EVALUATION PROCESS/GRADING SYSTEM:

Tree, Shrub and Plant Identification Tests	75%
Lecture Tests	21%
Twig Key Test	4%
Total	100%

Grade	<u>Definition</u>	<i>Grade Point Equivalent</i>
A+	91 – 100%	4.00
A	85 – 90%	
B	78 – 84%	3.00
C	70 – 77%	2.00
D	65 – 69%	1.00
F (Fail)	64% and below	0.00
CR (Credit)	Credit for diploma requirements has been awarded.	
S	Satisfactory achievement in field /clinical placement or non-graded subject area.	
U	Unsatisfactory achievement in field/clinical placement or non-graded subject area.	
X	A temporary grade limited to situations with extenuating circumstances giving a student additional time to complete the requirements for a course.	
NR	Grade not reported to Registrar's office.	
W	Student has withdrawn from the course without academic penalty.	

Notes:

- Though passing Trees and Shrubs (NRT102) is not a prerequisite, students who have not at least attempted NRT102 may find Trees and Herbaceous Plants difficult. New students are advised to consult with the instructor before registering for this course.
- Students should plan on identification tests (either in lab or in the field) virtually every week.
- Students may be assigned an "R" grade early in the course for unsatisfactory performance.
- The 65% passing level is in accordance with governmental and industrial standards.
- 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
- Hard hats must be worn on all field trips
- Bus or van transportation is provided for all field trips away from the main campus. Use of personal vehicles on field trips will only be allowed with the written permission of the instructor. Excepting those with written permission, students who do not travel on the bus or van will not be allowed to participate in field activities, or write field tests.
- Your instructor reserves the right to modify the course as he/she deems necessary to meet the needs of students.
- At the instructor's discretion, a rewrite test may be allowed for students combining participation and good attendance with a final mark in the 55 - 65% range. Rewrites will normally consist of a single test (both identification and written material) covering the whole semester's work. The highest grade achievable on a rewrite test is "C".

VI. SPECIAL NOTES:Special Needs:

If you are a student with special needs (e.g. physical limitations, visual impairments, hearing impairments, or learning disabilities), you are encouraged to discuss required accommodations with your professor and/or the Special Needs office. Visit Room E1101 or call Extension 493 so that support services can be arranged for you.

Retention of Course Outlines:

It is the responsibility of the student to retain all course outlines for possible future use in acquiring advanced standing at other postsecondary institutions.

Plagiarism:

Students should refer to the definition of “academic dishonesty” in *Student 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/program, as may be decided by the professor/dean. 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.

Course Outline Amendments:

The professor reserves the right to change the information contained in this course outline depending on the needs of the learner and the availability of resources.

Substitute course information is available in the Registrar's office.

<include any other special notes appropriate to your course>

VII. PRIOR LEARNING ASSESSMENT:

Students who wish to apply for advanced credit in the course should consult the professor. Credit for prior learning will be given upon successful completion of a challenge exam or portfolio.

VIII. DIRECT CREDIT TRANSFERS:

Students who wish to apply for direct credit transfer (advanced standing) should obtain a direct credit transfer form from the Dean's secretary. Students will be required to provide a transcript and course outline related to the course in question.