

SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY

SAULT STE. MARIE, ONTARIO



COURSE OUTLINE

COURSE TITLE: Trees and Herbaceous Plants Identification
CODE NO. : NRT133 **SEMESTER:** Winter
PROGRAM: Adventure Recreation and Parks Technician, Fish & Wildlife Conservation Technician, Forest Conservation Technician, Natural Environment Technician/Technologist
AUTHOR: Rob Routledge
DATE: Dec 2012 **PREVIOUS OUTLINE DATED:** Dec 2011
APPROVED:

	_____	_____
	CHAIR	DATE
TOTAL CREDITS:	3	
PREREQUISITE(S):	None	
HOURS/WEEK:	3	

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I. COURSE DESCRIPTION:

Students will learn how to identify plants located in and around the upper Great Lakes region including native deciduous trees and shrubs, native herbaceous and dwarf woody plants, and woody and herbaceous plants considered invasive. Focus will be on gaining skills enabling the identification of trees and shrubs in leaf-off condition using twig, bark, silhouette, reproductive structures and other unique identifying features; and identification of herbaceous and dwarf woody plants using foliage and floral characteristics. The silvics of tree species will be studied to complement their identification.

II. LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:

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

1. Identify deciduous trees and shrubs in leaf-off condition.

Potential Elements of the Performance:

- identify the morphological features of a woody twig using appropriate terminology
- identify and describe flowering or fruiting structures using appropriate terminology and relate to taxonomic group
- use features such as twigs, bark, flowering and fruiting structures, growth form and ecological associations to correctly identify a particular tree or shrub by their common name
- associate common names with scientific names for all deciduous trees and shrubs studied
- identify Ontario's commercial deciduous tree species (11) by their scientific name

approximately 67% 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 commercially important western Canadian coniferous trees
- associate key features with common names

approximately 8% of the final mark

3. Identify woody and herbaceous plants using dichotomous word keys (winter leaf-off trees and shrubs; flowering herbaceous and dwarf woody plants).

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

approximately 10% of the final mark

4. Identify herbaceous and dwarf woody plants and woody and herbaceous plants considered invasive.

Potential Elements of the Performance:

- use features including leaf characteristics and flower structure, size, and colour to correctly identify a particular plant
- recognize the ecological and societal impacts of invasive plants

approximately 15% 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. Woody twig morphology
2. Flower morphology
3. Woody plant fruit types
4. Tree and shrub leaf-off identification with and without the use of a dichotomous key
5. Native herbaceous and dwarf woody plant identification using foliage and flowers with and without the use of a dichotomous key
6. Invasive non-aquatic woody and herbaceous plant identification
7. Ecological and societal impacts of invasive plant species
8. Identification features of western Canadian coniferous trees
9. Primary and secondary succession
10. Ecological associations of common trees and shrubs
11. Forest Regions of Ontario

IV. REQUIRED RESOURCES/TEXTS/MATERIALS:

- Farrar, J.L. (1995). **Trees in Canada**, Fitzhenry and Whiteside Limited (in cooperation with the Canadian Forest Service), Markham, Ontario
- Newcomb, L. (1989). **Newcomb's Wildflower Guide**. Little, Brown and Company, Toronto
- **reflective vest, hard hat** with appropriate winter liner (there must be clearance between the hard hat shell and wearer's head for suspension system to work properly), **snowshoes** (optional) and **appropriate winter clothing and boots**

V. EVALUATION PROCESS/GRADING SYSTEM:

- Assessments in this course will total 475 points
- *Identification tests/lab assignments* – 370 points (78%)
 - woody plant ID tests.....190 points
 - twig morphology assignment.....20 points
 - woody plant keying assignment.....10 points
 - woody plant keying test.....15 points
 - LMS terminology quiz.....10 points
 - LMS ID quizzes (3 @ 10 points).....30 points
 - College Woodlot tree walk inventory.....15 points
 - plant (herbs/dwarf woody/invasives) ID tests.....60 points
 - plant (herbs/dwarf woody) keying.....20 points
- *Lecture tests/quizzes* – 105 points (22%)
 - lecture test #1.....35 points
 - lecture test #2.....40 points
 - lecture quizzes (6 @ 5 points)30 points

For a student to be eligible to complete a missed identification test or other assessment, the instructor must be contacted in person or via phone or email to discuss make-up options within a week after the date of the missed assessment (except under extenuating circumstances, e.g., doctor's note).

No make-ups will be allowed for lecture quizzes or ID tests scheduled away from the main campus/college woodlot except under extenuating circumstances.

- The following semester grades will be assigned to students:

<u>Grade</u>	<u>Definition</u>	<u>Grade Point Equivalent</u>
A+	90 - 100%	4.00
A	80 - 89%	4.00
B	70 - 79%	3.00
C	60 - 69%	2.00
D	50 - 59%	1.00
F (Fail)	49% 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.

VI. SPECIAL NOTES:

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.

Attendance

Sault College is committed to student success. There is a direct correlation between academic performance and class attendance; therefore, for the benefit of all its constituents, all students are encouraged to attend all of their scheduled learning and evaluation sessions. This implies arriving on time and remaining for the duration of the scheduled session.

Field Labs

Students must wear appropriate clothing and safety equipment when on outdoor scheduled field exercises. A student who comes to an outdoor lab without the requested safety equipment or is wearing inappropriate winter clothing will be marked absent and will not attend the class and this includes writing tests given in the outdoors.

Any student who in the judgement of the **instructor** or in consultation with **support staff** behaves inappropriately during a scheduled class or copies the work of another student without the instructor's permission, will be given an automatic zero on that particular assessment and will be subject to all the terms and conditions in the student's rights and responsibilities hand book and may after, reviewing the situation with the instructor, be asked to leave the course with an F grade.

Smoking is not allowed during field labs.

Cell phones

Lecture: Please turn off your cell phone, or set to "vibrate", during lecture (including lecture portion of lab periods).

Lab: Use of a cell phone is not allowed during a field ID test. A student using a cell phone during a field ID test will be given an automatic zero for that test. If students are expecting an important phone call while in the field, the instructor must be informed beforehand.