# SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY

# SAULT STE. MARIE, ONTARIO



# **COURSE OUTLINE**

COURSE TITLE:	Trees and Shrubs Identification			
CODE NO. :	NRT101	SE	EMESTER:	Fall
PROGRAM:	Adventure Recreation and Parks Technician, Fish & Wildlife Conservation Technician, Forest Conservation Technician, Natural Environment Technician/Technologist			
AUTHOR:	Lesley Phillips			
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APPROVED:	"C	olin Kirkwood" DEAN	Au	gust 2013
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HOURS/WEEK:	3			
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#### I. COURSE DESCRIPTION:

Field and laboratory practice in the identification, nomenclature and ecology of trees and shrubs native to Ontario, some introduced species and a few major coniferous species native to western Canada.

# II. LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:

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

1. Identify species of broad-leaved trees and shrubs native to Ontario (and a few introduced) in summer condition.

#### Potential Elements of the Performance:

- for a particular tree or shrub:
  - assess features including leaves, bark, flowering and fruiting structures, growth form 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
  - □ use correct terminology to describe key features
  - correctly spell common names (trees and shrubs) and scientific names (trees)
- 2. Identify northeastern (native and introduced) and northwestern (native) North American coniferous trees and shrubs

#### Potential Elements of the Performance:

- for a particular tree or shrub:
  - assess features including foliage, cones, bark, growth form 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
  - □ use correct terminology to describe key features
  - □ correctly spell common and scientific names

3. Identify the leaves of native broad-leaved trees encountered in southern Ontario's Deciduous (i.e., Carolinian) forest.

# Potential Elements of the Performance:

- assess key leaf features to correctly identify to species
- correctly spell common names
- 4. Associate broad-leaved and coniferous trees with silvical characteristics such as longevity, shade tolerance, site requirements (e.g., soil moisture) and range in Canada.

# Potential Elements of the Performance:

- identify the range of selected species across Canada
- identify which species may be present in an area given particular site conditions and disturbance history
- 5. Identify, collect, press and mount leaves of common Ontario broadleaved tree and shrub species.

# Potential Elements of the Performance:

- using available resources, identify trees and shrubs in the field
- collect representative leaves from each species identified
- using a press of the students own design, dry leaves in a manner that prevents discolouration and preserves the integrity of the leaf
- neatly mount and label pressed leaves
- 6. Identify coniferous and broad-leaved branch/leaf samples to family, genus or species using dichotomous keys provided.

# Potential Elements of the Performance:

- associate terminology with their definitions
- evaluate options set forth in a dichotomous word key
- follow a dichotomous word key in an orderly, systematic manner
- 7. Identify, using scientific names, foliage and/or fruiting structure/cone of Ontario predominate tree species (broad-leaved and coniferous) to 90% accuracy

# Potential Elements of the Performance:

• for a particular foliage/ fruiting structure/cone sample:

- apply knowledge of and experience with key features to correctly identify the foliage and/or fruiting structure/cone
- □ correctly spell scientific names

### III. TOPICS:

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

- 1. Identification of native (and a few introduced) Ontario broad-leaved trees and shrubs in summer condition.
- 2. Identification of cones and foliage of northeastern (native and introduced) and northwestern (native) North American coniferous trees and shrubs.
- 3. Identification of native broad-leaved trees encountered in southern Ontario's Deciduous (i.e., Carolinian) forest in summer condition.
- 4. Collection, pressing, mounting and labelling of herbarium specimens.
- 5. Aesthetic, cultural and historical values of Ontario trees and shrubs.
- 6. Silvical characteristics of native Ontario broad-leaved and coniferous trees.
- 7. Use of dichotomous keys.

# IV. REQUIRED RESOURCES/TEXTS/MATERIALS:

- Barnes, B. V. and Wagner, W. H. Jr. (2004). <u>Michigan Trees, Revised and</u> <u>Updated</u>, University of Michigan Press
- Chambers et al. (1996). <u>Forest Plants of Central Ontario</u>, Lone Pine Publishing
- 10x power loupe
- Hardhat, CSA approved safety boots, reflective vest

# V. RECOMMENDED RESOURCES/TEXTS/MATERIALS:

- Kershaw, L. J. (2001). <u>Trees of Ontario, Including Tall Shrubs</u>, Lone Pine Publishing
- Newmaster, S. G. (2013). <u>Woodlot Biodiversity</u>, 2<sup>nd</sup> Edition. Newmaster Publishing Ltd.

#### VI. EVALUATION PROCESS/GRADING SYSTEM:

Identification tests/quizzes	60 %
Collections	15 %
Lecture tests/quizzes	15 %
Assignments	10 %

The following semester grades will be assigned to students:

Final Grade (College Equivalent)	<u>Final Letter</u> <u>Grade</u>	<u>Grade Point</u> Equivalent
49 % & below	F	0.00
50 - 59 %	D	1.00
60 - 69 %	С	2.00
70 - 79 %	В	3.00
80 - 89 %	Α	4.00
90 - 100 %	A+	4.00

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.

#### VII. SPECIAL NOTES:

#### **Disability Services**

If you are a student with a disability (e.g. physical limitations, visual impairments, hearing impairments, or learning disabilities), you are encouraged to discuss required accommodations with your professor and/or the Disability Services office.

#### **Communication**

The College considers *LMS* as the primary channel of communication for each course. Regularly checking this software platform is critical as it will keep you directly connected with faculty and current course information.

#### Electronic Devices in the Classroom

Students who wish to use electronic devices in the classroom will seek permission of the faculty member before proceeding to record instruction. With the exception of issues related to accommodations of disability, the decision to approve or refuse the request is the responsibility of the faculty member. Where the use of an electronic device has been approved, the student agrees that materials recorded are for his/her use only, are not for distribution, and are the sole property of the College.

#### Plagiarism

Students should refer to the definition of "academic dishonesty" in *Student Code of Conduct*. A professor/instructor may assign a sanction as defined below, or make recommendations to the Academic Chair for disposition of the matter. The professor/instructor may (i) issue a verbal reprimand, (ii) make an assignment of a lower grade with explanation, (iii) require additional academic assignments and issue a lower grade upon completion to the maximum grade "C", (iv) make an automatic assignment of a failing grade, (v) recommend to the Chair dismissal from the course with the assignment of a failing grade. 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.

#### Student Portal

The Sault College portal allows you to view all your student information in one place. **mysaultcollege** gives you personalized access to online resources seven days a week from your home or school computer. Single log-in access allows you to see your personal and financial information, timetable, grades, records of achievement, unofficial transcript, and outstanding obligations, in addition to announcements, news, academic calendar of events, class cancellations, your learning management system (LMS), and much more. Go to https://my.saultcollege.ca.

# VIII. COURSE OUTLINE ADDENDUM:

The provisions contained in the addendum located on the portal form part of this course outline.