

SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY

SAULT STE. MARIE, ONTARIO



CICE COURSE OUTLINE

COURSE TITLE:	Trees and Shrubs Identification		
CODE NO. :	NRT101	SEMESTER:	Fall
MODIFIED CODE:	NRT0101		
PROGRAM:	Adventure Recreation and Parks Technician Fish & Wildlife Conservation Technician Forest Conservation Technician Natural Environment Technician/Technologist		
AUTHOR:	Lesley Phillips		
MODIFIED BY:	Katie Wakeley, Learning Specialist CICE Program		
DATE:	Sept 2015	PREVIOUS OUTLINE DATED:	Sept 2014
APPROVED:		"Angelique Lemay"	Sept 2015
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	Dean		DATE
TOTAL CREDITS:	Three		
PREREQUISITE(S):			
HOURS/WEEK:	3hrs/wk		

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For additional information, please contact the Dean, School of Community Services, Interdisciplinary Studies, Curriculum & Faculty Enrichment

(705) 759-2554, Ext. 2737

I. COURSE DESCRIPTION:

The CICE student, with assistance from a Learning Specialist, will acquire a basic knowledge in regard to the systematic study of structural characteristics of trees and shrubs, the identification of Canadian species by leaf features, their relationships to one another and recognition of their dynamic role in forest ecology. Coniferous species will be studied in considerable detail including twig, bark and growth characteristics.

II. LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:

Upon successful completion of this course, the CICE student, with assistance from a Learning Specialist, will demonstrate a basic 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 some features are best applied to the identification task at hand
 - Apply some knowledge of and experience with key features to correctly identify the tree or shrub
 - Use some terminology to describe key features
 - Use common names (trees and shrubs)
2. Identify north-eastern (native and introduced), and some north-western (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 some knowledge of and experience with key features to correctly identify the tree
- Use some correct terminology to describe key features
- Use common 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
- Using 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 some species that may be present in an area given particular site conditions and disturbance history

5. Identify, collect, press and mount leaves of common Ontario broad-leaved tree and shrub species.

Potential Elements of the Performance:

- Using available resources, identify trees and shrubs in the field
- Collect representative leaves from some 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:

- Use some terminology with their definitions
- Follow options set forth in a dichotomous word key
- Follow a dichotomous word key in an orderly, systematic manner

7. Identify, using common names, most foliage and/or fruiting structure/cone of Ontario predominate tree species (broad-leaved and coniferous) with (70%) accuracy.

Potential Elements of the Performance:

For a particular foliage/ fruiting structure/cone sample:

- Apply knowledge of and experience to correctly identify some foliage and/or fruiting structure/cone

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 some 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). Michigan Trees. Revised and Updated, University of Michigan Press
- Chambers et al. (1996). Forest Plants of Central Ontario, Lone Pine Publishing
- 10x power loupe
- Hardhat, CSA approved safety boots, reflective vest

V. OPTIONAL RESOURCES/TEXTS/MATERIALS:

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

VI. COURSE CREDIT

- To obtain a credit for this course requires the achievement of:
 - (1) an overall course average of 50% (see VII. EVALUATION PROCESS/GRADING SYSTEM below); **and**

VII. EVALUATION PROCESS/GRADING SYSTEM:

Identification tests/quizzes	55 %
Collections	15 %
Lecture tests/quizzes	15 %
Assignments	15 %

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

VIII. COURSE OUTLINE ADDENDUM:

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

Addendum:

Further modifications may be required as needed as the semester progresses based on individual student(s) abilities and must be discussed with and agreed upon by the instructor.

CICE Modifications:**Preparation and Participation**

1. A Learning Specialist will attend class with the student(s) to assist with inclusion in the class and to take notes.
2. Students will receive support in and outside of the classroom (i.e. tutoring, assistance with homework and assignments, preparation for exams, tests and quizzes.)
3. Study notes will be geared to test content and style which will match with modified learning outcomes.
4. Although the Learning Specialist may not attend all classes with the student(s), support will always be available. When the Learning Specialist does attend classes he/she will remain as inconspicuous as possible.

A. Tests may be modified in the following ways:

1. Tests, which require essay answers, may be modified to short answers.
2. Short answer questions may be changed to multiple choice or the question may be simplified so the answer will reflect a basic understanding.
3. Tests, which use fill in the blank format, may be modified to include a few choices for each question, or a list of choices for all questions. This will allow the student to match or use visual clues.
4. Tests in the T/F or multiple choice format may be modified by rewording or clarifying statements into layman's or simplified terms. Multiple choice questions may have a reduced number of choices.

B. Tests will be written in CICE office with assistance from a Learning Specialist.***The Learning Specialist may:***

1. Read the test question to the student.
2. Paraphrase the test question without revealing any key words or definitions.
3. Transcribe the student's verbal answer.
4. Test length may be reduced and time allowed to complete test may be increased.

C. Assignments may be modified in the following ways:

1. Assignments may be modified by reducing the amount of information required while maintaining general concepts.
2. Some assignments may be eliminated depending on the number of assignments required in the particular course.

The Learning Specialist may:

1. Use a question/answer format instead of essay/research format
2. Propose a reduction in the number of references required for an assignment
3. Assist with groups to ensure that student comprehends his/her role within the group
4. Require an extension on due dates due to the fact that some students may require additional time to process information
5. Formally summarize articles and assigned readings to isolate main points for the student
6. Use questioning techniques and paraphrasing to assist in student comprehension of an assignment

D. Evaluation:

Is reflective of modified learning outcomes.