



# COURSE OUTLINE

## NRT0101

Prepared: Lesley Phillips    Approved: Sherri Smith

<b>Course Code: Title</b>	NRT0101: TREES AND SHRUBS I								
<b>Program Number: Name</b>	1120: COMMUNITY INTEGRATN								
<b>Department:</b>	C.I.C.E.								
<b>Semester/Term:</b>	17F								
<b>Course Description:</b>	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. Predominately delivered outdoors in the field in all weather conditions.								
<b>Total Credits:</b>	3								
<b>Hours/Week:</b>	3								
<b>Total Hours:</b>	45								
<b>Essential Employability Skills (EES):</b>	<p>#1. Communicate clearly, concisely and correctly in the written, spoken, and visual form that fulfills the purpose and meets the needs of the audience.</p> <p>#2. Respond to written, spoken, or visual messages in a manner that ensures effective communication.</p> <p>#4. Apply a systematic approach to solve problems.</p> <p>#5. Use a variety of thinking skills to anticipate and solve problems.</p> <p>#9. Interact with others in groups or teams that contribute to effective working relationships and the achievement of goals.</p> <p>#10. Manage the use of time and other resources to complete projects.</p> <p>#11. Take responsibility for ones own actions, decisions, and consequences.</p>								
<b>General Education Themes:</b>	Science and Technology								
<b>Course Evaluation:</b>	Passing Grade: 50%, D								
<b>Other Course Evaluation &amp; Assessment Requirements:</b>	Obtain a grade of 90% or greater on the 90% accuracy test administered at the end of the semester								
<b>Evaluation Process and Grading System:</b>	<table border="1"> <thead> <tr> <th>Evaluation Type</th> <th>Evaluation Weight</th> </tr> </thead> <tbody> <tr> <td>Assignments</td> <td>15%</td> </tr> <tr> <td>Collections</td> <td>15%</td> </tr> <tr> <td> </td> <td> </td> </tr> </tbody> </table>	Evaluation Type	Evaluation Weight	Assignments	15%	Collections	15%		
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Identification tests/quizzes	55%
Lecture tests/quizzes	15%

### Books and Required Resources:

Forest Plants of Central Ontario by Chambers et al. (1996)  
 Publisher: Lone Pine Publishing

Michigan Trees, Revised and Updated by • Barnes, B. V. and Wagner, W. H. Jr. (2004)  
 Publisher: University of Michigan Press

### Course Outcomes and Learning Objectives:

Upon successful completion of this course, the CICE student, with the assistance of a Learning Specialist will acquire varying levels of skill development relevant to the following learning outcomes:

#### Course Outcome 1.

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

#### Learning Objectives 1.

- 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)

#### Course Outcome 2.

Identify northeastern (native and introduced), and some northwestern (native) North American, coniferous trees and shrubs.

#### Learning Objectives 2.



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For a particular tree or shrub:

Assess features including foliage, bark, cones, 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

### **Course Outcome 3.**

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

### **Learning Objectives 3.**

Assess key leaf features to correctly identify to species  
Correctly spell common names

### **Course Outcome 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.

### **Learning Objectives 4.**

Identify the range of selected species across Canada  
Identify which species may be present in an area given particular site conditions and disturbance history

### **Course Outcome 5.**

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

### **Learning Objectives 5.**



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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

### **Course Outcome 6.**

Identify coniferous and broad-leaved branch/leaf samples to family, genus or species using dichotomous keys provided.

### **Learning Objectives 6.**

Associate terminology with their definitions  
Evaluate options set forth in a dichotomous word key  
Follow a dichotomous word key in an orderly, systematic manner

### **Course Outcome 7.**

Identify, using scientific names, foliage and/or fruiting structure/cone of Ontario predominate tree species (broad-leaved and coniferous) to 90% accuracy. A maximum of three (3) attempts to achieve is permitted.

### **Learning Objectives 7.**

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 and common names

#### **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



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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.** 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.

**B. 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.

**C. 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.

**D. 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:***



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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

### **E. Evaluation:**

Is reflective of modified learning outcomes.

**NOTE:** Due to the possibility of documented medical issues, CICE students may require alternate methods of evaluation to be able to acquire and demonstrate the modified learning outcomes

**Date:**

Wednesday, September 6, 2017

Please refer to the course outline addendum on the Learning Management System for further information.