COURSE OUTLINE: NRT0101 - TREES AND SHRUBS I

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Course Code: Title	NRT0101: TREES AND SHRUBS I
Program Number: Name	1120: COMMUNITY INTEGRATN
Department:	C.I.C.E.
Academic Year:	2022-2023
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. Predominately delivered outdoors in the field in all weather conditions, with the assistance of a learning specialist.
Total Credits:	3
Hours/Week:	3
Total Hours:	42
Prerequisites:	There are no pre-requisites for this course.
Corequisites:	There are no co-requisites for this course.
Vocational Learning Outcomes (VLO's) addressed in this course: Please refer to program web page for a complete listing of program outcomes where applicable.	**1120 - COMMUNITY INTEGRATN** VLO 1 Integrate fully in academic, social and community activities.
Essential Employability Skills (EES) addressed in this course:	EES 1 Communicate clearly, concisely and correctly in the written, spoken, and visual form that fulfills the purpose and meets the needs of the audience. EES 2 Respond to written, spoken, or visual messages in a manner that ensures effective communication. EES 4 Apply a systematic approach to solve problems. EES 5 Use a variety of thinking skills to anticipate and solve problems. EES 9 Interact with others in groups or teams that contribute to effective working relationships and the achievement of goals. EES 10 Manage the use of time and other resources to complete projects. EES 11 Take responsibility for ones own actions, decisions, and consequences.
Course Evaluation:	Passing Grade: 50%, D A minimum program GPA of 2.0 or higher where program specific standards exist is required for graduation.
Other Course Evaluation &	Obtain a grade of 90% or greater on the 90% accuracy test administered at the end of the

Assessment Requirements:	semester.
	Academic success is directly linked to attendance. Missing more than 1/3 of the course hours in a semester shall result in a F Grade for this Course.
Books and Required Resources:	Michigan Trees, Revised and Updated by Barnes, B. V. and Wagner, W. H. Jr. (2004) Publisher: University of Michigan Press
	Michigan Vines and Shrubs by Barnes, B. V. et al. (2016) 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	**Learning Objectives for Course Outcome 1**
Identify, predominantly outdoors in the field, species of broad-leaved trees and shrubs native(and a few introduced) to Ontario in summer condition.	1.1 For a particular tree or shrub: a) assess features including leaves, bark, flowering and fruiting structures, growth form and ecological associations. b)determine which features are best applied to the identification task at hand. c) apply knowledge of and experience with key features to correctly identify the tree or shrub. d)use correct terminology to describe key features. e)correctly spell common and scientific names.
Course Outcome 2	**Learning Objectives for Course Outcome 2**
Identify, predominantly outdoors in the field, species of coniferous trees and shrubs native (and a few introduced) to Northeastern, and some to Western, North American.	2.1 For a particular tree or shrub: a) assess features including foliage, bark, cones, growth form and ecological associations. b) determine which features are best applied to the identification task at hand. c) apply knowledge of and experience with key features to correctly identify the tree or shrub. d) use correct terminology to describe key features. e) correctly spell common and scientific names.
Course Outcome 3	**Learning Objectives for Course Outcome 3**
Identify the leaves of native broad-leaved trees encountered in Southern Ontario`s Deciduous (i.e., Carolinian) forest.	3.1 Assess key leaf features to correctly identify to species. 3.2 Correctly spell common names.
Course Outcome 4	**Learning Objectives for 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.	4.1 Identify the range of selected species across Canada. 4.2 Identify which species may be present in an area given particular site conditions and disturbance history.
Course Outcome 5	**Learning Objectives for Course Outcome 5**
Identify, collect (from outdoors in the field), press	5.1 Using available resources, identify trees and shrubs in the field.

and mount leaves of common Ontario broad-leaved tree and shrub species.	5.2 Collect representative leaves from each species identified. 5.3 Using a press of the students own design, dry leaves in a manner that prevents discolouration and preserves the integrity of the leaf. 5.4 Neatly mount and label pressed leaves.
Course Outcome 6	**Learning Objectives for Course Outcome 6**
Identify coniferous and broad-leaved branch/leaf samples to family, genus or species using dichotomous keys provided.	6.1 Associate terminology with their definitions. 6.2 Evaluate options set forth in a dichotomous word key. 6.3 Follow a dichotomous word key in an orderly, systematic manner.
Course Outcome 7	**Learning Objectives for 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.	7.1 For a particular foliage/fruiting structure/cone sample: a) apply knowledge of and experience with key features to correctly identify the foliage and/or fruiting structure/cone. b) correctly spell scientific and common names.

Evaluation Process and Grading System:

Evaluation Type	Evaluation Weight
Assignments	15%
Collections	15%
Identification tests/quizzes	55%
Lecture tests/quizzes	15%

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. 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.

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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:

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:	August 31, 2022
Addendum:	Please refer to the course outline addendum on the Learning Management System for further information.