



## COURSE OUTLINE: NRT0150 - FOREST INVENTORY

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<b>Course Code: Title</b>	NRT0150: FOREST INVENTORY CICE
<b>Program Number: Name</b>	1120: COMMUNITY INTEGRATN
<b>Department:</b>	C.I.C.E.
<b>Semesters/Terms:</b>	19F
<b>Course Description:</b>	Effective forest management for environmental assessment as well as forest harvest planning is based on accurate field inventories of the composition of the forest. This course examines methods of obtaining such information, through hands-on training. Tree and forest heights, diameters and ages will be covered. Inventory methodologies including fixed area plot measurement and point sampling will be carried out in the field. Compilation of forest inventory data will round out the course.
<b>Total Credits:</b>	4
<b>Hours/Week:</b>	4
<b>Total Hours:</b>	60
<b>Prerequisites:</b>	There are no pre-requisites for this course.
<b>Corequisites:</b>	There are no co-requisites for this course.
<b>Essential Employability Skills (EES) addressed in this course:</b>	<p>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.</p> <p>EES 2 Respond to written, spoken, or visual messages in a manner that ensures effective communication.</p> <p>EES 3 Execute mathematical operations accurately.</p> <p>EES 4 Apply a systematic approach to solve problems.</p> <p>EES 5 Use a variety of thinking skills to anticipate and solve problems.</p> <p>EES 6 Locate, select, organize, and document information using appropriate technology and information systems.</p> <p>EES 7 Analyze, evaluate, and apply relevant information from a variety of sources.</p> <p>EES 8 Show respect for the diverse opinions, values, belief systems, and contributions of others.</p> <p>EES 9 Interact with others in groups or teams that contribute to effective working relationships and the achievement of goals.</p> <p>EES 10 Manage the use of time and other resources to complete projects.</p> <p>EES 11 Take responsibility for ones own actions, decisions, and consequences.</p>
<b>Course Evaluation:</b>	Passing Grade: 50%, D
<b>Other Course Evaluation &amp; Assessment Requirements:</b>	Academic success is directly related to attendance. Missing more than 1/3 of the course hours in a semester shall result in an F grade for the course.
<b>Course Outcomes and Learning Objectives:</b>	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



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outcomes:

<b>Course Outcome 1</b>	<b>Learning Objectives for Course Outcome 1</b>
1. Carry out accurate field measurements and inventories of forest trees.	1.1 Explain the concepts of timber cruising, forest inventories and growth and yield. 1.2 Carry out prism, fixed area and strip cruises complete with the associated compilations. 1.3 Understand how to design a timber inventory. 1.4 Demonstrate the ability to use electronic field instruments and data recorders.
<b>Course Outcome 2</b>	<b>Learning Objectives for Course Outcome 2</b>
2. Properly compile, summarize and report inventory results.	2.1 Compile complete, legible cruise tallies. 2.2 Summarize results using appropriate calculations. 2.3 Demonstrate the use of computerized tally sheets.
<b>Course Outcome 3</b>	<b>Learning Objectives for Course Outcome 3</b>
3. Demonstrate knowledge of the Forest Resource Inventory System in Ontario.	3.1 Record data using the FRI Format. 3.2 Explain the FRI system.
<b>Course Outcome 4</b>	<b>Learning Objectives for Course Outcome 4</b>
4. Calculate the number of trees per hectare, basal area per hectare and timber volume per hectare	4.1 Understand the concepts of stems per hectare, basal area per hectare and tree volume per hectare. 4.2 Apply mathematical formulae to calculate trees per hectare, basal area per hectare and volume per hectare.

**Evaluation Process and Grading System:**

<b>Evaluation Type</b>	<b>Evaluation Weight</b>
Field Assignments and Compilations	65%
Final Exam	20%
Midterm Test	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.
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 28, 2019

**Addendum:**

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

