COURSE OUTLINE

NRT0256

Prepared: Rob Routledge   Approved: Sherri Smith

Course Code: Title	NRT0256: ECOSYSTEM CLASSIFICATION
Program Number: Name	1120: COMMUNITY INTEGRATN
Department:	C.I.C.E.
Semester/Term:	17F
Course Description:	This course is a survey of natural wetland and forest ecosystems and associated plant communities found in central Ontario. A range of vascular and non-vascular wetland and terrestrial plants and lichens will be identified with a focus on indicator species. Identification of these organisms combined with hands-on experience in describing soils in the field will be used to classify a range of local ecosystems using current Ontario Ecological Land Classification tools at the Ecosite and Vegetation-Type level.
Total Credits:	3
Hours/Week:	3
Total Hours:	45
Essential Employability Skills (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. #2. Respond to written, spoken, or visual messages in a manner that ensures effective communication. #3. Execute mathematical operations accurately. #4. Apply a systematic approach to solve problems. #5. Use a variety of thinking skills to anticipate and solve problems. #10. Manage the use of time and other resources to complete projects. #11. Take responsibility for ones own actions, decisions, and consequences.
General Education Themes:	Science and Technology
Course Evaluation:	Passing Grade: 50%, D

Evaluation Process and Grading System:	Evaluation Type	Evaluation Weight
	Assignments	37%
	Field labs	23%
	Identification tests	30%

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Quizzes	10%

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 vascular and non-vascular plants and lichens.

Learning Objectives 1.

• identify selected flowering, vascular wetland plants (floating-leaved, submergent, emergent and other associated plants)
• identify selected ferns, horsetails, club-mosses, liverworts, mosses, and lichens and describe morphology and associated terminology specific to each taxonomic group
• identify, describe and compare the fruiting structures and vegetative features of selected grasses, sedges and rushes using appropriate terminology and demonstrate effective use of dichotomous keys
• identify, describe and compare the reproductive structures and processes characteristic of ferns, club-mosses, mosses, and lichens

Course Outcome 2.

Identify and digitally photograph taxonomically important features of selected vascular plants.

Learning Objectives 2.

• identify a minimum number of selected vascular plants in the field using available resources
• acquire digital images of a minimum number of taxonomically important identification features for each specimen identified
• present images in a digital herbarium format using PowerPoint or comparable software

Course Outcome 3.

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Classify a range of local ecosystems using current Ontario Ecological Land Classification tools at the Ecosite and Vegetation-Type level.

Learning Objectives 3.

• competently apply field skills and techniques specific to the Ecological Land Classification system

Ecosite
• describe a mineral soil profile from a soil pit and/or from extracted auger samples by competently delineating soil horizons and reliably collecting soil parameters (e.g., depth, textural class, coarse fragment classification) to enable classification to an ecosite using decision keys in Ecosites of Ontario
• describe an organic soil profile (e.g., von Post scale of decomposition) from extracted soil auger samples and identify wetland indicator plants to enable classification to an ecosite using decision keys in Ecosites of Ontario
• describe the composition and structure of ecosystem conditions through the use of ecosite fact sheets
• determine the potential value of a site for selected wildlife using non-spatial habitat suitability models incorporating Ecosite and forest development stages (Revised habitat suitability models for the Great Lakes-St. Lawrence and Boreal East forests, OMNRF)

Vegetation-Type
• reliably collect vegetation data to allow classification of Vegetation-Type (V-type) using the central Ontario site classification system

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

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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

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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.