



COURSE OUTLINE

NET0210

Prepared: Cynthia Marcinkowski Approved: Sherri Smith

Course Code: Title	NET0210: WETLAND CONSERVATION FOR CICE		
Program Number: Name	1120: COMMUNITY INTEGRATN		
Department:	C.I.C.E.		
Semester/Term:	17F		
Course Description:	This course provides the biological background for conservation and management of wetland habitats, emphasizing aquatic community component identification, biology and structure. Students will learn how to identify and differentiate many types of wetlands and categorize them based on their structure. Means by which wetlands are afforded protection will be explored, including conservation limitations, and enhancement to optimize recreational, social, aesthetic and economic values. Steps in the Ontario Wetland Evaluation System process will be completed through both in-field and in-class activities.		
Total Credits:	3		
Hours/Week:	3		
Total Hours:	45		
Essential Employability Skills (EES):	<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>#5. Use a variety of thinking skills to anticipate and solve problems.</p> <p>#6. Locate, select, organize, and document information using appropriate technology and information systems.</p> <p>#7. Analyze, evaluate, and apply relevant information from a variety of sources.</p> <p>#8. Show respect for the diverse opinions, values, belief systems, and contributions of others.</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>		
General Education Themes:	Science and Technology		
Course Evaluation:	Passing Grade: 0%, D		
Evaluation Process and	<table border="1"> <thead> <tr> <th>Evaluation Type</th> <th>Evaluation Weight</th> </tr> </thead> </table>	Evaluation Type	Evaluation Weight
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Grading System:

Attendance	5%
Exams	30%
Quizzes	20%
Reading Assignments	20%
Wetland Evaluation Project	15%
Wetland Project	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.

Compare the classes of wetlands in Canada, and the ecological characteristics of each class.

Learning Objectives 1.

- Research the classes of wetlands from reference material.
- Differentiate wetland types and summarize characteristics of each, including hydrological and sediment criteria.
 - Describe the values of wetlands and identify the major reasons for wetland loss.
 - Identify wildlife habitat enhancement features including nesting structures for marsh birds.
 - Review waterfowl ecology and management and recognize the role wetlands play in their conservation.

Course Outcome 2.

Identify and discuss the role of biological components of wetlands including indicator species.

Learning Objectives 2.

- Identify indicator species commonly found in wetlands using actual specimens and/or visual materials.



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- Associate wetland dwelling species such as amphibians, reptiles, aquatic plants, marsh birds, and mammals to their habitats and roles.
- Access and interpret literature pertaining to management aspects of wetlands including flora, invertebrates, marsh birds and mammals.
- Examine different methods for surveying wetland species.

Course Outcome 3.

Perform steps involved in completing an assessment of a local wetland and submit a written wetland evaluation using the Ministry of Natural Resources Ontario Wetland Evaluation System”.

Learning Objectives 3.

- Review the procedures described in the Ontario Wetland Evaluation System (Northern Manual).
- Conduct a field survey of a wetland using the OWES procedure focusing on the Biological, Social, Hydrological and Special Feature Components.
- Organize and record complete, detailed accurate and neat documentation of field activities on the provided forms.
- Apply knowledge of Geographical Information System (GIS) to delineate vegetation communities in order to determine total wetland size and fractional areas of individual communities as required for scoring the wetland.
- Compare and contrast an evaluation of a local provincially significant wetland to the wetland assessed by the student.

Course Outcome 4.

Compare physical, chemical, and biological methods of vegetation management in wetlands in terms of methods of application, economic and ecological costs and public acceptance.

Learning Objectives 4.

- Review the assigned readings and case studies on vegetation management
- Theorize why vegetation and vegetation control may constitute a problem for managers.
- Evaluate the advantages/disadvantages of the methods of physical, chemical, and biological vegetation management.



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Course Outcome 5.

Discuss structures and methods of water-level control for the conservation and enhancement of wetland productivity.

Learning Objectives 5.

- Identify types of water level manipulation devices, discussing the purpose and function of each.
- Describe the ecological effects of implementing the use of water-level control structure, with emphasis on vegetation and benthic communities.
- Explain how water control structures are used for biological vegetation control.

Course Outcome 6.

Research issues and planning initiatives in wetland conservation, rehabilitation and restoration.

Learning Objectives 6.

- Locate and use literature, media and electronic resources to prepare a wetland profile report or case study.
- Summarize planning efforts and legislation in place to mitigate wetland loss and afford protection.

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.



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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:

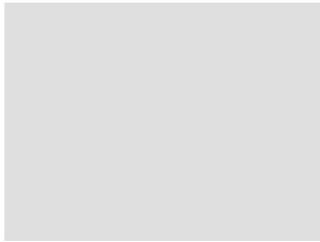
1. Assignments may be modified by reducing the amount of information required while maintaining general concepts.
2. Some assignments may be eliminated depending on the number of assignments required in the particular course.

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



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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.