COURSE OUTLINE: NET100 - FISH/WILD STUDIES I

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Approved: Sherri Smith, Chair, Natural Environment, Business, Design and Culinary

Course Code: Title	NET100: FISH AND WILDLIFE STUDIES I
Program Number: Name	5212: ADVENTURE RECREATION 5220: NAT ENVIRONMENT TN 5221: NAT ENVIRONMENT TY
Department:	NATURAL RESOURCES PRG
Semesters/Terms:	20F
Course Description:	This course concentrates on fundamental aspects of anatomy, physiology, and ecology of Ontario birds, Ontario Turtles, Ontario Snakes and Ontario Amphibian species. Lab sessions will develop skills in identification and classification, as well provide knowledge and experience with commonly used field inventory techniques.
Total Credits:	3
Hours/Week:	3
Total Hours:	45
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.**	**5212 - ADVENTURE RECREATION** VLO 1 Demonstrate clear, concise and industry appropriate written, spoken and visual communication skills. VLO 2 Identify, discuss, organize and assess common Flora & Fauna species found throughout ON, including biological and physiological characteristics. **5220 - NAT ENVIRONMENT TN** VLO 1 Collect data from representative biological and environmental samples using routine test procedures. VLO 2 Utilize natural resources equipment and technology to accurately identify ecosystem components for purposes of conserving and managing natural resources. VLO 3 Apply the basic concepts of science to natural resource conservation and management. VLO 4 Conduct natural environment assessments according to standard field survey methods, including the use of appropriate equipment and materials. VLO 5 Recommend eco-site conservation and management strategies through the classification of ecosystem components. VLO 6 Practice principles and ethics associated with natural resource conservation and management issues. VLO 7 Work safely in adherence to occupational health and safety standards. VLO 8 Complete all work in compliance with applicable municipal, provincial and federal

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	standards and guidelines. VLO 9 Contribute to the implementation of natural resource conservation and management. VLO 10 Perform basic project management support techniques. VLO 11 Communicate technical information accurately and effectively in oral, written and visual forms. VLO 12 Travel accurately in a timely manner in the outdoors using appropriate navigation aids and motorized transport equipment. VLO 13 Apply awareness of global environmental issues to conservation and management of natural resources. **5221 - NAT ENVIRONMENT TY** VLO 2 Utilize natural resources information technology equipment to assemble, analyze and present identified ecosystem components for purposes of conserving and managing natural resources. VLO 3 Apply the basic concepts of science to natural resource conservation and management.
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 3 Execute mathematical operations accurately. EES 4 Apply a systematic approach to solve problems. EES 5 Use a variety of thinking skills to anticipate and solve problems. EES 6 Locate, select, organize, and document information using appropriate technology and information systems. EES 7 Analyze, evaluate, and apply relevant information from a variety of sources. EES 8 Show respect for the diverse opinions, values, belief systems, and contributions of others. 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.
General Education Themes:	Science and Technology
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 & Assessment Requirements:	Academic success is directly linked to attendance. Missing more than 1/3 of the course hours in a semester shall result in an `F` grade for the course.
Books and Required Resources:	Amphibians and Reptiles of the Great Lakes Region by James H. Harding Publisher: University of Michigan Press

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Field Guide to the Birds of North America by Roger Tory Peterson
Publisher: Houghton Mifflin Edition: 6

Course Outcomes and Learning Objectives:

Course Outcome 1	**Learning Objectives for Course Outcome 1**
1. Identify common Ontario bird species based on visual field marks.	1.1 Using specimens examine external and internal avian anatomy. 1.2 Identify 35 groups of Ontario birds. 1.3 Identify approximately 40 common Ontario bird species, using visual field marks and field guides. 1.4 Explain the ecological/interpretive importance of selected species of birds. 1.5 Identify exotic and controversial bird species and explain their influence on the native fauna. 1.6 Use natural history-related information pertaining to Ontario birds for interpretive purposes. 1.7 Use visual field marks to identify common Ontario bird species from specimens, digital images, video, or field guides. 1.8 Identify bird species through connections with their associated preferred habitats.
Course Outcome 2	**Learning Objectives for Course Outcome 2**
2. Discuss avian biology, ecology and migration behaviour.	2.1 Discuss theories related to bird behaviour including territoriality and nest building. 2.2 Discuss migration, navigation techniques and use of migratory flyways. 2.3 Research ecological requirements for selected avian species.
Course Outcome 3	**Learning Objectives for Course Outcome 3**
3. Conduct field surveys to assess habitat and relative abundance of wildlife populations.	3.1 Research habitat requirements for bird species and assess suitability of selected areas. 3.2 Discuss common survey techniques used in the management of various herptiles and bird species. 3.3 Follow survey protocols for selected species and calculate the relative abundance using formulae
Course Outcome 4	**Learning Objectives for Course Outcome 4**
4. Record, analyze and present field data.	4.1 Establish avian feeding stations, recording findings including species presence and food utilization. 4.2 Completely and accurately fill out field forms for field studies. 4.3 Analyze collected data using minor statistics. 4.4 Present findings from field surveys in a report format.
Course Outcome 5	**Learning Objectives for Course Outcome 5**
5. Identify selected amphibians and reptiles, with special ecological and interpretive value.	5.1 Define the characteristics of each of the 5 wetland classes and discuss their ecological importance. 5.2 Relate the factors contributing to wetland loss and amphibian decline on Ontario. 5.3 Summarize prominent environmental monitoring programs

	involving herptiles in Ontario. 5.4 Identify using images and vocalizations recordings common to Ontario amphibians. 5.5 Discuss the ecological/interpretative importance of amphibians. 5.6 Identify using images of common turtles and snakes of Ontario. 5.7 Discuss ecological/interpretative importance of reptiles.

Evaluation Process and Grading System:

Evaluation Type	Evaluation Weight
Field Surveys	10%
Lab Tests/Assignments	75%
Reports	15%

Date: June 17, 2020

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