

SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY

SAULT STE. MARIE, ON

COURSE OUTLINE

COURSE TITLE: ENVIRONMENTAL STUDIES II

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CODE NO.: FOR245-4

SEMESTER: IV

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PROGRAM: PARKS & OUTDOOR RECREATION/FISH & WILDLIFE TECHNCIAN

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AUTHOR: DON HALL

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DATE: FEBRUARY 1996

PREVIOUS OUTLINE DATED: MAY 95

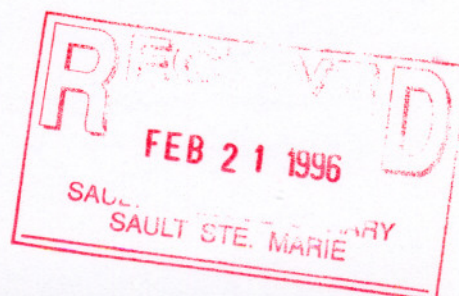
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APPROVED: \_\_\_\_\_

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Feb. 19, 1996

DATE



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TOTAL CREDITS 64

PREREQUISITE(S): Environmental Studies I

**I. PHILOSOPHY/GOALS:**

An in-depth continuation of Environmental Studies I. Where possible, lecture material is followed up by field assignments and projects. Field skills in identification of wildlife species are further developed by the introduction of new bird species, and addition of studies in bird song, herptiles, frog songs and wildlife tracks and signs. Techniques for enhancing urban wildlife habitat are introduced, as are recent developments in forest habitat suitability analysis. There will be an opportunity to model forest habitat management using a computer simulation. Also includes trees and shrubs useful to wildlife, wild edible plants, and the influence of snow on ecosystems. Contemporary environmental issues may be covered, as they arise.

**II. STUDENT PERFORMANCE OBJECTIVES (OUTCOMES):**

Upon successful completion of this course the student will:

1. Visually identify approximately 125 species of birds commonly found in Ontario.
2. Identify approximately 40 species of birds by their songs or calls.
3. Visually identify approximately 21 species of reptiles and amphibians.
4. Identify approximately 7 species of frogs and toads by their songs.
5. Prepare a plan for the improvement of urban "backyard" wildlife habitat.
6. Explain recent Ontario developments in forest habitat suitability analysis.
7. Associate wildlife species with trees and shrubs they find useful.
8. Identify, and discuss the usefulness of, commonly available wild edible plants.

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III. TOPICS TO BE COVERED:

- Unit 1 Influence of Snow on Ecosystems
- . Structure and metamorphosis of the snow pack
  - . Effects of snow on selected wildlife species
  - . Field project, measuring physical characteristics of snow
- Unit 2 Identification of Ontario Wildlife by Tracks and Signs
- . Study, from slides and books, of tracks and signs of common Ontario wildlife species
  - . Field assignment, to practice tracking skills
  - . If time allows, students will share insights gained from the field assignment by presenting them orally to the class
- Unit 3 Trees and Shrubs Useful to Wildlife
- Unit 4 Wild Edible Plants
- . Plants, most of which are already familiar to the student, considered as sources of food
  - . Plants particularly useful for winter survival in Northern Ontario
  - . Cautions concerning poisonous plants
- Unit 5 Visual Identification of Birds
- . Review of birds studied in Environmental Studies I
  - . Study (primarily from slides) of additional species, particularly passerines
- Unit 6 Identification of Birds by Songs and Calls
- . Study, primarily from instructional tapes, of songs and calls of approximately 42 species.
- Unit 7 Enhancing Urban Wildlife Habitat
- . Planning and design for "backyard" habitat enhancement
  - . Includes a planning assignment
- Unit 8 Identification of Ontario Reptiles and Amphibians
- . Study, from slides and field guides, of the identifying features of 21 species of Ontario herptiles
  - . Study, primarily from audio tapes of songs of approximately 7 species of frogs and toads
- Unit 9 Forest Habitat Suitability Analysis
- . Recent developments in forest habitat suitability analysis, including a Forest Habitat Suitability Matrix
  - . Assignment, possibly including computer work
- Unit 10 Forest Management Modelling
- . Use of a computer to model different forest management options, and simulate balancing of forest values

#### IV. EVALUATION METHODS:

Tests	50%
Assignments	40%
Quizzes, Oral Presentation	10%
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	100%

The Grading system to be used will be as follows:

A+	90-100%
A	80-89%
B	70-79%
C	60-69%
R	Less than 60% (course to be repeated)

#### V. PRIOR LEARNING ASSESSMENT:

Students who wish to apply for advanced credit in the course should consult the instructor.

#### VI. REQUIRED STUDENT RESOURCES:

Note: Students will already have access to some of these resources, as they are required of courses taken in earlier semesters.

FOR245-Environmental Studies II Study Guide (available in bookstore)

Peterson, R.T. 1980. A Field Guide to the (Eastern) Birds. 4th ed. Houghton Mifflin Co., Boston.

Miller, D.S. 1981. Track Finder. Nature Study Guild, Berkley

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**VII. SUGGESTED ADDITIONAL RESOURCE MATERIALS:**

Elliot, L. and T. Mack. 1990. Wild Sounds of the Northwoods. Audio Tape. Nature Sound Studio, Ithaca NY

Godfrey, E. 1986. Birds of Canada. National Museum of Natural Sciences, Ottawa. QL685.G63

Cadman, M.D., et al. 1987. Atlas of the Breeding Birds of Ontario. University of Waterloo Press, Waterloo. REF QL685.5.06 A53 1987

Rezendes, P. 1992. Tracking and the Art of Seeing. Camden House Publishing. Charlotte VT. QL768.R49 1992

D'Eon, R.G. and W.R. Watt. 1994. Forest Habitat Suitability Matrix for Northeastern Ontario. NEST report IR-007, Ontario Ministry of Natural Resources, Timmins

Knopf, A.A. 1979. The Audubon Field Guide to North American Reptiles and Amphibians. Chanticleer Press, Inc., New York

Stokes, D. and L. Stokes. 1986. Animal Tracking and Behavior. Stokes Nature Guides. Little, Brown and Co., Toronto

Peterson, L.E. 1977. A Field Guide to Edible Wild Plants, Eastern and Central North America. Peterson Field Guides. Houghton Mifflin Co., Boston. REF QK98.5.U6 P468

Walton, R.K. and R.W. Lawson, 1990. Eastern/Central Birding by Ear, Audio Tapes. Peterson Field Guides. Houghton Mifflin Co., Boston

**VIII. SPECIAL NOTES:**

Hard hats must be worn on all field trips.

Students with special needs (eg. physical limitations, visual impairments, hearing impairments, learning disabilities) are encouraged to discuss required accommodations confidentially with the instructor.

Your instructor reserves the right to modify the course as he/she deems necessary to meet the needs of students.