DOC.# 538

SAULT COLLEGE OF APPLIED ARTS & TECHNOLOGY

SAULT STE. MARIE, ONTARIO

# COURSE OUTLINE

COURSE TITLE: FISH AND WILDLIFE MANAGEMENT

CODE NO.: FOR 371-4 SEMESTER: V

PROGRAM: INTEGRATED RESOURCE MANAGEMENT TECHNOLOGY

AUTHOR: VALERIE WALKER

DATE: JAN./93 PREVIOUS OUTLINE DATED: N/A

APPROVED: _____ Feb 12/93

DEAN, SCHOOL OF SCIENCES & NATURAL RESOURCES — DATE

FISH AND WILDLIFE MANAGEMENT — COURSE NAME

FOR 371 - 4 — COURSE NUMBER

**TOTAL CREDIT HOURS:** 64

**PREREQUISITE(S):**

## I. PHILOSOPHY/GOALS:

A practical introductory course to field identification, life histories and habitat requirements of important Ontario fish and wildlife species. Included will be several field outings focussing on habitat assessment of deer, bird identification, interpretation of tracks and sign and fish culture.

## II. STUDENT PERFORMANCE OBJECTIVES:

Upon successful completion of this course the student will be able to:

1) Differentiate between exponential and sigmoid growth curves and describe the factors that affect natality, mortality and stability of fish/wildlife populations.

2) Discuss aspects of avian behaviour and basic anatomy.

3) Identify visually and by song common Northern Ontario bird species.

4) Associate common Ontario upland game birds with their habitat requirements.

5) Demonstrate a basic understanding of fish growth and the various techniques to assess fish age.

6) Identify important sport and commercial fish species of Ontario and discuss their habitat requirements and natural history as well as the closed system culture of select species.

7) Identify important north American mammalian species from slides and study skins.

8) Describe the biological life history and habitat requirements of major upland game, mammals and fur-bearing mammals.

9) Identify the tracks, scats and other signs of common wildlife species.

10) Identify important amphibians and reptiles of Ontario and discuss their habitat requirements.

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III. TOPICS TO BE COVERED: — Approximate Time Frames

Unit 1 - Population Growth — 2 weeks

- characteristics of a population
- population growth curves
- population stability
- limiting factors

Unit 2 - Bird Identification — 2 weeks

- distinguish different binocular designs and list advantages of each
- identification of, using visual key features, approximately 110 common bird species
- identification of, from vocalization approximately 39 common bird species

Unit 3 - Bird Anatomy and Physiology

- identification of structures and function of internal and external features — 1 week
- specializations unique to bird groups

Unit 4 - Bird Behaviour and Habitat Requirements — 2 weeks

- migration, territoriality, nesting behaviour
- habitat requirements for common upland game birds

Unit 5 - Fish Identification, Habitat Requirements and Culture — 2 weeks

- identification of important sport and commercial fish species
- biological life history and habitat requirements of key species
- closed - system culture of salmonids

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III. TOPICS TO BE COVERED: Approximate Time Frames

Unit 6 - Fish Anatomy/Growth — 1 week

- factors limiting growth
- growth assessment
- removal and preparation of anatomical features for ageing

Unit 7 - Mammal Identification, Biology and Habitat — 2 weeks

- identification of important mammalian species from slides and study skins
- biological life histories and habitat requirements of major upland game mammals and fur-bearing mammals.

Unit 8 - Tracks and Signs — 1 week

- identification of tracks, scats and other signs of common wildlife species

Unit 9 - Reptiles and Amphibians — 1 week

- identification and habitat requirements of important reptiles and amphibians

IV. EVALUATION METHODS:

A final grade will be derived from the results of tests and assignments weighted as follows:

Tests - 70%
Assignments - 30%

Ten percent (10%) may be deducted from any asignment for each day late.

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**IV. EVALUATION METHODS:** (cont'd)

The grading system used will be as follows:

A+ = 90 - 100%
A = 80 - 89%
B = 70 - 79%
C = 60 - 69%
R = Less than 60% (Repeat)

Note: There will be no rewrite opportunity at the end of the semester.

**V. REQUIRED STUDENT RESOURCES:**

Burt, W. H. and R. P. Grossenheider, 1980. A Field Guide to the Mammals, Houghton Mifflin Co., Boston.

Miller, Dorcas S., 1981. Track Finder, A Guide to Mammal Tracks of Eastern North America Nature Study Guide, Berkely, California.

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

Scott, W. B. and E.J., 1973 Crossman. Freshwater Fishes of Canada, Department of the Environment, Fisheries Research Board of Canada, Ottawa.

**VI. ADDITIONAL RESOURCE MATERIALS AVAILABLE IN THE COLLEGE LIBRARY BOOK SECTION:**

Slides/tapes required for the identification of fish and wildlife species will be available on a reserve basis for library use.

**VII. SPECIAL NOTES:**

Students with special needs (e.g. 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.