

**SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY
SAULT STE. MARIE, ON**



COURSE OUTLINE

COURSE TITLE: ANIMAL DIVERSITY

CODE NO.: NRT105 **SEMESTER:** 2

PROGRAM: FISH & WILDLIFE TECHNICIAN
PARKS & OUTDOOR RECREATION TECHNICIAN

AUTHOR: JASON VANSLACK

DATE: JAN 2000 **PREVIOUS OUTLINE DATED:** JAN 1999

APPROVED: _____
DEAN DATE

TOTAL CREDITS 3
PREREQUISITE(S): None
LENGTH OF COURSE: 3 hrs/week x 16 weeks
TOTAL CREDIT HOURS: 48

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For additional information, please contact Joe Fruchter, Dean,
School of Business & Hospitality and Natural Resources Programs,
(705) 759-2554, Ext. 688.

I. COURSE DESCRIPTION:

This course is an introduction to the identification of common fish and wildlife species in Ontario. Lectures will concentrate on discussing key anatomical features used to identify selected specimens. Interpretative value will be stressed through learning significant points of each species natural history. In the following labs, students will be exposed to slides and specimens where information from the previous lecture will be applied. Topic areas will include: invertebrates, terrestrial insects, freshwater fish, reptiles and amphibians, various species of birds, mammals, and fish & wildlife diseases.

II. LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:

Upon successful completion of this course, students will demonstrate the ability to:

1. Identify various invertebrate groups found in the aquatic environment utilizing keys based on important anatomical features.

Potential Elements of the Performance:

- Using specimens provided, identify to order selected aquatic crustaceans and molluscs including troublesome exotics
- Identify the major external feature, and their functions, of crustaceans using the crayfish as a study specimen
- Recognize the major types of metamorphosis in insects and identify the stage from selected specimens
- Draw the external features used in identification keys from aquatic specimens of each stage of the insect cycle
- Identify a variety of aquatic insects to orders/families using keys and on sight
- Relate ecological curiosities amongst aquatic insects for interpretative purposes

This learning outcome will constitute approximately 15% of the course.

2. Identify terrestrial insects to orders and identify to specific type,

selected insects with special ecological/interpretative value.

Potential Elements of the Performance:

- Identify using keys and on sight, a variety of terrestrial insects to order
- Identify to specified group/species, selected butterflies and other insects with high interpretative value
- Relate the importance of each of these special groups ecologically and describe their unique biological features

This learning outcome will constitute approximately 15% of the course.

3. Identify selected sport and commercial freshwater fish.

Potential Elements of the Performance:

- Using slides and preserved specimens identify using keys and on sight, major sport and commercial species of freshwater fish including selected exotics
- Relate economic and ecological importance and interest of selected species

This learning outcome will constitute approximately 15% of the course.

4. Identify selected amphibians and reptiles.

Potential Elements of the Performance:

- Using slides and recordings identify Ontario amphibians
- Relate ecological/interpretative importance of amphibians
- Using slides identify turtles and snakes of Ontario
- Relate ecological/interpretative importance of reptiles

This learning outcome will constitute approximately 15% of the course.

5. Identify important songbirds, waterfowl, raptors and shorebirds, and relate their importance and interpretative value.

Potential Elements of the Performance:

- Using slides and recordings, identify important species from each of the major bird groups from sight and song
- Relate the ecological/interpretative importance of selected species of birds
- Identify exotic species and relate their influence on the native fauna

This learning outcome will constitute approximately 15% of the course.

6. Identify important mammals in Ontario and relate their importance and interpretative value.

Potential Elements of the Performance:

- Using slides and available specimens, identify important Ontario mammals and indicate changes in range/introductions
- Relate the ecological/interpretative value of mammals

This learning outcome will constitute approximately 10% of the course.

7. Recognize the danger posed by diseases associated with wildlife and fish, and describe the specialized organisms responsible.

Potential Elements of the Performance:

- Outline the complex life cycles of organisms responsible for such diseases as rabies, Lyme's, beaver fever and botulism
- Recognize the danger of these diseases and outline appropriate preventative methods
- Outline the complex life cycles associated with selected wildlife/fish parasites
- Describe the biology of selected parasite groups
- Draw from prepared slides the structure of selected parasite groups such as flukes, tapeworms and roundworms
- Relate important and interesting ecological information for interpretative purposes

This learning outcome will constitute approximately 15% of the course.

III. TOPICS:

1. Invertebrates
2. Terrestrial Insects
3. Freshwater Fish
4. Amphibians and Reptiles
5. Songbirds, Waterfowl, Raptors and Shorebirds
6. Mammals
7. Fish and Wildlife Diseases

IV. REQUIRED RESOURCES/TEXTS/MATERIALS:

Peterson, R. T. 1980. *A Field Guide to the Birds*. Houghton Mifflin Company, Boston. 384 pp. ISBN # 0-395-36164-8

Burt, W.H. and R.P. Grossenheider. 1976. *Peterson Field Guide to Mammals*. Houghton Mifflin Company, Boston. 289 pp. ISBN #0-395-24084-0

Reid, G.K. 1967. *Pond Life: A Golden Guide*. Golden Press, New York. Western Publishing Company, Inc. Racine, Wisconsin. 160pp. ISBN #0-307-24017-7

V. EVALUATION PROCESS/GRADING SYSTEM

Invertebrate Identification Test	15%
Terrestrial Insect Identification Test	15%

ANIMAL DIVERSITY

Course Name

NRT105-3

Code No.

Freshwater Fish Identification Test	15%
Amphibian and Reptile Identification Test	15%
Bird Identification Test	15%
Mammal Identification Test	15%
Fish and Wildlife Diseases Identification Test	<u>10%</u>
	100%

<u>Grade</u>	<u>Definition</u>	<u>Grade Point Equivalent</u>
A+	90 – 100%	4.00
A	80 – 89%	3.75
B	70 – 79%	3.00
C	60 – 69%	2.00
R (Repeat)	59% or below	0.00
CR (Credit)	Credit for diploma requirements has been awarded.	
S	Satisfactory achievement in field placement or non-graded subject areas.	
U	Unsatisfactory achievement in field placement or non-graded subject areas.	
X	A temporary grade – limited to situations with extenuating circumstances giving a student additional time to complete the requirements for a course (see Policies & Procedures Manual – Deferred Grades and Make-up).	
NR	Grade not reported to Registrar's office. This is used to facilitate transcript preparation when, for extenuating circumstances, it has been impossible for the faculty member to report grades.	

VI. SPECIAL NOTES:

Special Needs:

If you are a student with special needs (e.g. physical limitations, visual impairments, hearing impairments, or learning disabilities), you are encouraged to discuss required accommodations with your instructor and/or the Special Needs office. Visit Room E1204 or call Extension 493, 717, or 491 so that support services can be arranged for you.

Retention of course outlines:

It is the responsibility of the student to retain all course outlines for possible future use in acquiring advanced standing at other post-secondary institutions.

Plagiarism:

Students should refer to the definition of “academic dishonesty” in *Student Rights and Responsibilities*. Students who engage in “academic dishonesty” will receive an automatic failure for that submission and/or such other penalty, up to and including expulsion from the course, as may be decided by the professor. In order to protect students from inadvertent plagiarism, to protect the copyright of the material referenced, and to credit the author of the material, it is the policy of the department to employ a documentation format for referencing source material.

The Professor reserves the right to change the information contained in this course outline depending on the needs of the learner and the availability of resources.

Substitute course information is available in the Registrar's office.

Field Trips:

A total of two field trips will be conducted throughout this semester, and are a **mandatory component** of this course. Students missing either one of these outdoor learning activities without prior consent of the instructor or without good reason, will automatically be **penalized 5%** of their overall course mark, per trip.

VII. PRIOR LEARNING ASSESSMENT:

Students who wish to apply for advanced credit in the course should consult the instructor. Credit for prior learning will be given upon successful completion of the following:

VIII DIRECT CREDIT TRANSFERS:

Students who wish to apply for direct credit transfer (advanced standing) should obtain a direct credit transfer form from the Dean's secretary. Students will be required to provide a transcript and course outline related to the course in question.