

SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY

SAULT STE. MARIE, ONTARIO



Sault College

COURSE OUTLINE

COURSE TITLE: ANIMAL DIVERSITY
CODE NO. : NRT 143 **SEMESTER:** 2
PROGRAM: PARKS & OUTDOOR RECREATION TECHNICIAN
AUTHOR: Bob Knudsen
DATE: JAN 2007 **PREVIOUS OUTLINE DATED:** JAN 2006
APPROVED:

	_____	_____
	DEAN	DATE
TOTAL CREDITS:	2	
PREREQUISITE(S):	None	
HOURS/WEEK:	2	

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School of Technology, Skilled Trades & Natural Resources
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I. COURSE DESCRIPTION:

This course continues with the further development of wildlife field identification skills with particular reference to the ecology and interpretive value of featured species. Topics will include amphibians and their songs, reptiles and mammals of Ontario. In addition, wildlife tracks and sign will be investigated as well as important wildlife parasites and diseases encountered in Ontario. Special emphasis will be placed on species at risk in Ontario and strategies for their protection and recovery.

II. LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:

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

1. **Outline the role of the National Committee on the Status of Endangered Wildlife in Canada (COSEWIC) and the Committee on the Status of Species at Risk in Ontario (COSSARO)**

Potential Elements of the Performance:

- Discuss the risk categories as defined by COSEWIC
- List those species at risk both provincially and nationally
- Outline the process of determining if a species is at risk
- Review protection legislation for Ontario species at risk
- Outline the role of recovery plans, recovery teams and recovery action groups to improve the status of a species at risk

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

2. **Identify selected amphibians and reptiles, with special ecological and interpretive value.**

Potential Elements of the Performance:

- Define the characteristics of each of the 5 wetland classes and discuss their ecological importance
- Relate the factors contributing to wetland loss and amphibian decline on Ontario
- List Ontario legislation which provides protection to wetlands
- Summarize prominent environmental monitoring programs involving herptiles in Ontario
- Identify using images and recordings common to Ontario amphibians

- Discuss the ecological/interpretative importance of amphibians
- Identify using images common turtles and snakes of Ontario
- Discuss ecological/interpretative importance of reptiles

This learning outcome will constitute approximately 25% of the course.

3. **Identify important mammals in Ontario, with special ecological and interpretative value.**

Potential Elements of the Performance:

- Identify significant Ontario mammal species using images, study skins and field guides
- Identify skulls of Ontario mammals using keys
- Discuss the basic biology & ecology of important wildlife species
- Relate the interpretative value of selected mammalian species
- Research the fur trapping industry in Ontario
- Conduct a wildlife survey to estimate forage biomass production and winter carrying capacity of white-tailed deer

This learning outcome will constitute approximately 30% of the course.

4. **Identify common wildlife species in Ontario based on tracks and signs**

Potential Elements of the Performance:

- Discuss scat characteristics of common wildlife orders
- Discuss track formula and trail patterns of common wildlife orders
- Distinguish between common species within an order based on tracks, movements, browsing, droppings, remains of food, method of kill, claw marks or antler scrapes, dens or nests
- Investigate and document 20 wildlife tracks & sign in a power point presentation

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

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

Potential Elements of the Performance:

- Outline the taxonomy of selected wildlife disease agents and parasites
- Discuss the complex life cycles of organisms responsible for parasitism and disease in Ontario fish & wildlife
- Recognize the danger and discuss the control and prevention of common wildlife diseases
- Summarize the objectives of the Rabies Unit in Ontario
- Relate important and interesting ecological information for interpretative purposes

This learning outcome will constitute approximately 15% of the course

III. TOPICS:

1. Species at Risk in Ontario
2. Amphibians and Reptiles
3. Mammals
4. Wildlife Tracks & Signs
5. Fish & Wildlife Parasites and Diseases

IV. REQUIRED RESOURCES/TEXTS/MATERIALS:

Eder, Tamara. 2002. *Mammals of Ontario*. Lone Pine Publishing. Edmonton, Alberta.

MacCulloch, Ross Douglas. 2002. *The ROM field guide to the amphibian and reptiles of Ontario*. Royal Ontario Museum and McClelland & Stewart Ltd. Toronto, Ontario. 168 pp.

VanSlack, J. 2006. *Animal Diversity (NRT143) - Study Guide*. Sault College of Applied Arts & Technology. Sault Ste. Marie, Ontario.

ADDITIONAL RESOURCES:

Ayles, H. 1970. *Common Parasites of Ontario Fishes*. Fisheries Inventory Unit, Fish and Wildlife Branch. Ontario Ministry of Natural Resources. 21 pp.

Behler, J. L. and F. W. King. 1979. *National Audubon Society - Field Guide to Reptiles and Amphibians*. Alfred A. Knopf Publishing, Inc. New York.

Elliott, L. and T. Mack. 1990. *Wild Sounds of the Northwoods [Audio Tape]*. Lang NatureSound Studio. Ithaca, New York. (For identifying amphibians and birds)

Rezendes, P. 1992. *Tracking & the Art of Seeing: How to Read Animal Tracks & Sign*. Camden House Publishing, Inc. Charlotte, Vermont. 320 pp.

Sheldon, Ian. *Animal Tracks of Ontario*. 1998. Lone Pine Publishing. Edmonton, Alberta.

Gillingwater, S.D. 2004. *Stewardship of the Spiny Softshell Turtle (Apalone spinifera spinifera)*. The Upper Thames River Conservation Authority, London, Ontario.

V. EVALUATION PROCESS/GRADING SYSTEM:

Tests and Assignments	90%
Participation	10%

NOTE: Lab assignments and report values will be reduced at a rate of **10% per day** for late submissions for a period of 5 days after the due date. After 5 days and lab assignment/report value will be zero. All labs/assignments and reports must be submitted regardless of lateness to pass the course.

Attendance during field exercises is **MANDATORY**. Student missing field work without valid, documented reason will risk repeating the course.

NOTE: Students given the opportunity to submit a lab report associated with a **missed** field trip will receive a maximum grade of 60% for that report

The following semester grades will be assigned to students in postsecondary courses:

Grade	Definition	<i>Grade Point Equivalent</i>
A+	90 – 100%	4.00
A	80 – 89%	3.00
B	70 - 79%	2.00
C	60 - 69%	1.00
D	50 – 59%	0.00
F (Fail)	49% and below	
CR (Credit)	Credit for diploma requirements has been awarded.	
S	Satisfactory achievement in field /clinical placement or non-graded subject area.	
U	Unsatisfactory achievement in field/clinical placement or non-graded subject area.	
X	A temporary grade limited to situations with extenuating circumstances giving a student additional time to complete the requirements for a course.	
NR	Grade not reported to Registrar's office.	
W	Student has withdrawn from the course without academic penalty.	

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 professor and/or the Special Needs office. Visit Room E1101 or call Extension 493 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 postsecondary 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/program, as may be decided by the professor/dean. 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.

Course Outline Amendments:

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.

VII. PRIOR LEARNING ASSESSMENT:

Students who wish to apply for advanced credit in the course should consult the professor. Credit for prior learning will be given upon successful completion of a challenge exam or portfolio.

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.