SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY

SAULT STE. MARIE, ONTARIO

SAULT COLLEGE

COURSE OUTLINE

COURSE TITLE: FISH & WILDLIFE STUDIES II

CODE NO. : NET105   **SEMESTER:** 2

PROGRAM: Natural Environment Technology/Technologist / Adventure Recreation and Parks Technician

AUTHOR: T. WINTER (EDITED BY R. NAMESPETRA)

DATE: DEC 2012   **PREVIOUS OUTLINE DATED:** N/A

APPROVED:

"C.Kirkwood"

_____   _____

                DEAN   **DATE**

TOTAL CREDITS: 3

PREREQUISITE(S): NIL

HOURS/WEEK: 3

I.   COURSE DESCRIPTION:

This course continues with the further development of fish and wildlife identification skills with particular reference to the biology and life history of featured species. Topics will include common fish and mammals of Ontario. Special emphasis will be placed on species at risk in Ontario and strategies for their protection and recovery. Wildlife tracks and sign will also be investigated and important wildlife parasites and diseases will be discussed.

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 Provincial Committee on the Status of Species at Risk in Ontario (COSSARO), as they pertain to species at risk.

Potential Elements of the Performance:

- Discuss the risk categories as defined by COSEWIC
- Research and report on species at risk in Ontario
- Outline the process of determining if a species is at risk
- Review protection legislation for Ontario species at risk
- Discuss species at risk topics addressed by guest speakers
- 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 fish species and discuss their biology, life cycles, and ecological value.

Potential Elements of the Performance:

- Correctly identify both internal and external anatomical structures of fish and describe their purpose.
- Demonstrate the effective use of bifurcated (dichotomous) keys in order to identify common Ontario fish species.
- Discuss scientific techniques of determining fish age.
- Discuss the ecology of fishes and their role as indicator species.

This learning outcome will constitute approximately 20% of the course

3.   Identify common mammals in Ontario based on tracks and signs, scat, study furs, specimens and skulls.

Potential Elements of the Performance:

- Identify many Ontario mammal species using images, study furs and specimens
- Identify skulls of Ontario mammals using keys
- 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
- Discuss scat characteristics, track formula and trail patterns of common wildlife
- Investigate and document 20 wildlife tracks & signs

This learning outcome will constitute approximately 35% of the course

4.   Discuss the biology, life cycles, ecology and interpretive value of many Ontario wildlife species.

Potential Elements of the Performance:
- Research and report on key biological and ecological features of selected orders/families of wildlife
- Relate the interpretative value of selected mammalian species
- Explain the lifecycles of parasites & diseases of Ontario fish and wildlife
- Identify select parasites & disease by their signs and symptoms, outlining the possible impact to human health.

This learning outcome will constitute approximately 15% of the course

5.   Conduct field surveys to assess wildlife presence.

Potential Elements of the Performance:
- Use tracks and signs in the field to survey wildlife species presence
- Discuss the presence or absence of certain species based on habitat type surveyed
- Discuss and demonstrate knowledge of various types of field surveys used to determine wildlife species presence.

This learning outcome will constitute approximately 15% of the course

III.   TOPICS:

1.   Species at Risk in Ontario
2.   Common fish species of Ontario
3.   Mammals
4.   Wildlife Tracks & Signs
5.   Fish & Wildlife Parasites and Diseases

IV.   REQUIRED RESOURCES/TEXTS/MATERIALS:

- Kurta, A. 1995. *Mammals of the Great Lakes Region.* Michigan Press.
- Rezendes, P. 1999. *Tracking & the Art of Seeing: How to Read Animal Tracks & Sign.* Camden House Publishing, Inc. Charlotte, Vermont.
- Lab coat
- Outdoor equipment – snowshoes, hardhat with liner, safety vest, compass, GPS.
- Printed class resources from LMS.

ADDITIONAL RESOURCES:

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

Holm, Erling, Nick Mandrak and Mary Burridge. *The ROM Field Guide to Freshwater Fishes of Ontario.* 2009. ROM.

Scott W.B. and E.J. Crossman. 1998. *Freshwater Fishes of Canada.* Galt House Publications Ltd. Oakville, Ontario.

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

V.   EVALUATION PROCESS/GRADING SYSTEM:

Tests and Assignments 90%
Participation   10%
**   100%**

The following semester grades will be assigned to students:

Grade	Definition	Grade Point Equivalent
A+	90 – 100%	4.00
A	80 – 89%	
B	70 - 79%	3.00
C	60 - 69%	2.00
D	50 – 59%	1.00
F (Fail)	49% and below	0.00

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:

Attendance:
Sault College is committed to student success. There is a direct correlation
between academic performance and class attendance; therefore, for the benefit
of all its constituents, all students are encouraged to attend all of their scheduled
learning and evaluation sessions. This implies arriving on time and remaining for
the duration of the scheduled session.

VII.   COURSE OUTLINE ADDENDUM:

The provisions contained in the addendum located on the portal form part
of this course outline