

SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY

SAULT STE. MARIE, ONTARIO



COURSE OUTLINE

COURSE TITLE: Wildlife Biology & Management

CODE NO. : NRT 205 **SEMESTER:** 3

PROGRAM: Fish & Wildlife Conservation Technician

AUTHOR: Rob Routledge

DATE: May 2015 **PREVIOUS OUTLINE DATED:** Aug. 2014

APPROVED:

	"C.Kirkwood"	Apr '15
	_____ Dean	_____ DATE

TOTAL CREDITS: 4

PREREQUISITE(S): NONE

HOURS/WEEK: 4

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I. COURSE DESCRIPTION:

This course is a practical introductory course to the field identification, life histories, and habitat requirements of Ontario wildlife species. A laboratory component is included emphasizing anatomy and physiology, parasites and diseases of wildlife, and identification of selected species.

II. LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:

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

1. **Identify principle wildlife species in Ontario, describing life histories, and habitat requirements.**

Potential Elements of the Performance:

- Identify mammals using field guides and resources provided.
- Identify the pelts, skulls, and hairs of selected mammals (i.e., fur-bearers, game species, and non-game species).

2. **Demonstrate knowledge of wildlife anatomy, sex and age determination, and determining the health status of wildlife populations.**

Potential Elements of the Performance:

- Dissect and identify anatomical features of selected mammals.
- Identify the components of the digestive tract and associated organs.
- Explain common techniques used to sex and age wildlife.
- Demonstrate the ability to correctly sex and age selected game species.
- Participate in a white-tailed deer hunter check station.
- Describe major parasites/diseases of wildlife with emphasis on causative agent, animals groups affected, mode of transmission, clinical signs, severity, and prevention and control options.

3. Research and describe life history requirements and current management practices for a selected wildlife species.

Potential Elements of the Performance:

- Using resources from Media Services, your instructor, the Internet, and other libraries and agencies, conduct research, develop and present a report outlining the biology, and ecology, for an assigned species (or group of similar species) that will include:
 - biological life history and reproductive potential
 - ecological relationships
 - limiting factors on growth
 - behavioural traits
 - current and past management practices

4. Perform field identification of wildlife tracks and signs.

Potential Elements of the Performance:

- Complete a photo collection of 15 tracks and signs indicating species and key identification features.
- Examine and differentiate the scat of several wildlife species native to Ontario.

5. Demonstrate an understanding of important aspects of population ecology in relation to the management of wildlife populations

Potential Elements of the Performance:

- Describe how wildlife populations can be spatially organized (distribution and density).
- Understand how wildlife populations grow and describe factors that limit their growth:
 - primary parameters that control population growth
 - biotic potential or intrinsic growth rate (r)
 - generalized exponential and logistic models of growth
 - concept of carrying capacity (K)
 - generalized life history strategies (R - and K -selection)
 - limiting factors
 - density-independent and density-dependent limiting factors
- Understand and describe factors that affect the demographics of a population (e.g., semelparity vs. iteroparity, trade-offs between survival and reproduction, sex and age ratios).
- Participate in guest presentations on current aspects of wildlife management.

III. TOPICS:

1. anatomy
2. habitat
3. life histories
4. parasites and disease
5. population dynamics
6. sex and age determination
7. tracks and signs
8. wildlife management

IV. REQUIRED RESOURCES/TEXTS/MATERIALS:

- Hardhat, reflective vest, rubber boots, safety boots, lab coat, dissection kit, safety glasses, rain gear, clipboard, pencils
- *Mammals of the Great Lakes Region* (Kurta) recommended
- *Tracking and the Art of Seeing: How to Read Animal Tracks and Sign.* (Rezendes) recommended

V. EVALUATION PROCESS/GRADING SYSTEM:

Lab Tests / Exams / Quizzes	50
Species Project & Presentation	15
Assignments	35
Overall	100 points

The following semester grades will be assigned to students:

<u>Grade</u>	<u>Definition</u>	<u>Grade Point Equivalent</u>
A+	90 - 100%	4.00
A	80 - 89%	4.00
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.	

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.

Conduct:

- Any student who in the judgement of the instructor behaves inappropriately in scheduled classes or copies the work of another student without the instructor's permission, will be subject to all the terms and conditions in the student's rights and responsibilities hand book and may after, reviewing the situation with the instructor, be asked to leave the course with an F grade.

Evaluation:

- To be eligible to make up for a missed test or quiz, the instructor must be contacted via phone or email ASAP to discuss make-up options. Students not contacting the instructor prior to a missed class or within a day afterwards will get a zero except under extenuating circumstances; e.g., doctor's note.
- Late assignments will only be accepted within 24 hours past the due date and will be penalized 20% except under extenuating circumstances, e.g., doctor's note
- The instructor cannot guarantee responses to questions in the 24-hour period prior to assignment deadlines and tests via phone message or email.

VI. COURSE OUTLINE ADDENDUM:

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