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: Teri Winter (Revised by C. Marcinkowski / R. Routledge)

DATE: Aug. 2014 **PREVIOUS OUTLINE DATED:** Aug. 2013

APPROVED:

"C.Kirkwood"

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 key 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 principle mammal species using field guides and resources provided.
- Identify the hides, skulls, and hairs of 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 mammals.
- Identify the components of the digestive tract and associated organs.
- Identify and state the stages in the life cycles of major parasites/diseases of wildlife.
- Explain common techniques used to sex and age wildlife.
- Demonstrate the ability to correctly sex and age selected game species.
- Participate in a check station for big game species.
- Analyze parameters of white-tailed deer herd health such as field dressed weight of all sex and age classes and antler beam diameter from deer check station data and explore trends in harvest, age structure, and herd health using data from previous years.

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
- Participate in guest presentations on current aspects of wildlife management.
- 4 Perform field identification of wildlife tracks and signs.

Potential Elements of the Performance:

- Complete a photo collection of 20 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).

III. REQUIRED RESOURCES/ TEXTS/ MATERIALS:

- Hardhat, reflective vest, rubber boots, safety boots, lab coat, 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

IV. EVALUATION PROCESS/GRADING SYSTEM:

Overall	100 points
Tracks and Signs Assignment	10
Quizzes / Assignments	25
Species Project & Presentation	15
Lab Tests / Exams	50

The following semester grades will be assigned to students:

	J	J	J	Grade Point		
Grade		D	efinition	Equivalent		
A+		90	0 - 100%	4.00		
Α		80 - 89%		4.00		
В		70 - 79%		3.00		
С		60 - 69%		2.00		
D		50 -59%		1.00		
F (Fail)		49%	and below	0.00		
CR (Credit) S	S	Credit for diploma requirements has been awarded. 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 C	A temporary grade limited to situations with extenuating circumstances giving a student additional time to complete the requirements for a course.				
NR	C	3rade not reported	d to Registrar's office	e.		

V. SPECIAL NOTES:

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 <u>missed test</u>, 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 <u>within a day</u> afterwards will get a zero except under extenuating circumstances; e.g., doctor's note.
- Late assignments will NOT BE accepted 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/exams via phone message or email.