SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY

SAULT STE. MARIE, ONTARIO



CICE COURSE OUTLINE

COURSE TITLE:	Wildlife Biology and Management		
CODE NO. : MODIFIED CODE:	NRT205 NRT0205	SEMESTER:	Fall
PROGRAM:	Fish and Wildlife Conservation Technician		
AUTHOR: MODIFIED BY:	Robert Rutledge Katie Wakeley, Learning Specialist CICE Program		
DATE:	Sept/2016	PREVIOUS OUTLINE DATED:	2015
APPROVED:		"Angelique Lemay"	Sept/16
		DEAN	DATE
TOTAL CREDITS:	Four		
PREREQUISITE(S):	None		
HOURS/WEEK:	Four		
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Services Interdisciplinary Studies, Curriculum & Faculty Enrichment (705) 759-2554, Ext. 2737

I. COURSE DESCRIPTION:

This course will introduce the CICE student to wildlife identification and biology, general management principles, population growth and carrying capacity. These theoretical aspects of the course will be modified and reinforced by an Education Assistant. Lab components include mammal and bird identification, anatomy and physiology, tracks and signs. Emphasis will be on game and fur-bearing mammals and upland game or migratory game birds.

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.

Potential Elements of the Performance:

- Identify and compare the pelts, skulls, and hairs of selected mammals (i.e., fur-bearers, game species, and non-game species) using field guides and dichotomous keys where appropriate.
- Identify wildlife tracks and signs:
 - by completing a photo collection of tracks and signs indicating species and key identification features and
 - by examining and differentiating the scat of wildlife species native to Ontario.
- Synthesize the following information on an assigned mammal species (or group of similar species) into a 1-page summary and PowerPoint presentation to be handed in to professor:
 - biological life history and reproductive potential
 - habitat requirements
 - limiting factors on growth
 - behavioural traits
 - current and past management practices

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

Potential Elements of the Performance:

- Dissect, identify, and compare anatomical features among selected mammals.
- Identify and compare the components of the digestive tract and

associated organs among selected mammals.

- Demonstrate the ability to apply standard practices to correctly sex and age selected game species.
- Participate in a white-tailed deer hunter check station.

3

• Describe major parasites/diseases of wildlife with emphasis on causative agent, animal groups affected, mode of transmission, clinical signs, severity, and prevention and control options.

3. 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).
- Describe how wildlife populations grow and 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
- Describe and compare 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 lectures on current aspects of wildlife management.(As long as it doesn't not conflict with other classes as they are on a different schedule)

III. TOPICS:

- 1. mammalian anatomy
- 2. fur-bearer, game, and non-game mammal identification
- 3. wildlife management
- 4. Wildlife parasites and diseases
- 5. population dynamics
- 6. sex and age determination

IV. REQUIRED RESOURCES/TEXTS/MATERIALS:

- Reflective vest, lab coat, dissection kit, safety glasses
- 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 and Quizzes	27.5
Species Project & Presentation	7.5
Assignments and LMS Quizzes	32.5
Tracks & Signs Assignment (Alternate time TBA)	5.0
Reading Assignments	10.0
Final Exam	17.5
Overall	100

The following semester grades will be assigned to students:

Grade	Definition	Grade Point Equivalent
A+ A	90 – 100% 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)	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.
х	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.

If a faculty member determines that a student is at risk of not being academically successful, the faculty member may confidentially provide that student's name to Student Services in an effort to help with the student's success. Students wishing to restrict the sharing of such information should make their wishes known to the coordinator or faculty member.

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.

5

Addendum:

Further modifications may be required as needed as the semester progresses based on individual student(s) abilities and must be discussed with and agreed upon by the instructor.

Evaluation:

- To be eligible to write a <u>missed test</u>, the instructor must be contacted via phone or email ASAP to discuss 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 as in the case of a medical excuse.
- <u>Late assignments</u> will only be accepted within 24 hours past the due date and will be penalized 20% except under extenuating circumstances as in the case of a medical excuse.
- Changes to the Course Evaluation scheme may be considered during the semester if approved by the majority of the class (majority = approval by 75% of students present at time of vote).
- The instructor cannot guarantee responses to questions in the 24-hour period prior to assignment deadlines and tests via phone message or email.

VII. COURSE OUTLINE ADDENDUM:

1.

<u>Course Outline Amendments</u>: The faculty member reserves the right to change the information contained in this course outline depending on the needs of the learner and the availability of resources.

6

CICE Modifications:

Preparation and Participation

- 1. A Learning Specialist will attend class with the student(s) to assist with inclusion in the class and to take notes.
- 2. Students will receive support in and outside of the classroom (i.e. tutoring, assistance with homework and assignments, preparation for exams, tests and quizzes.)
- 3. Study notes will be geared to test content and style which will match with modified learning outcomes.
- 4. Although the Learning Specialist may not attend all classes with the student(s), support will always be available. When the Learning Specialist does attend classes he/she will remain as inconspicuous as possible.

A. Tests may be modified in the following ways:

- 1. Tests, which require essay answers, may be modified to short answers.
- 2. Short answer questions may be changed to multiple choice or the question may be simplified so the answer will reflect a basic understanding.
- 3. Tests, which use fill in the blank format, may be modified to include a few choices for each question, or a list of choices for all questions. This will allow the student to match or use visual clues.
- 4. Tests in the T/F or multiple choice format may be modified by rewording or clarifying statements into layman's or simplified terms. Multiple choice questions may have a reduced number of choices.

B. Tests will be written in CICE office with assistance from a Learning Specialist.

The Learning Specialist may:

- 1. Read the test question to the student.
- 2. Paraphrase the test question without revealing any key words or definitions.
- 3. Transcribe the student's verbal answer.
- 4. Test length may be reduced and time allowed to complete test may be increased.

C. Assignments may be modified in the following ways:

- 1. Assignments may be modified by reducing the amount of information required while maintaining general concepts.
- 2. Some assignments may be eliminated depending on the number of assignments required in the particular course.

The Learning Specialist may:

- 1. Use a question/answer format instead of essay/research format
- 2. Propose a reduction in the number of references required for an assignment
- 3. Assist with groups to ensure that student comprehends his/her role within the group
- 4. Require an extension on due dates due to the fact that some students may require additional time to process information
- 5. Formally summarize articles and assigned readings to isolate main points for the student
- 6. Use questioning techniques and paraphrasing to assist in student comprehension of an assignment

D. Evaluation:

Is reflective of modified learning outcomes.