SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY

SAULT STE. MARIE, ONTARIO

Sault College

CICE COURSE OUTLINE

COURSE TITLE: Wildlife Biology And Management

CODE NO. : NRT205 **SEMESTER:** 3

MODIFIED CODE: NRT0205

PROGRAM: Fish and Wildlife Technician

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MODIFIED BY: Catherine Tosello, CICE Program

DATE: June 2004 **PREVIOUS OUTLINE DATED:** June 2003

APPROVED:

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DEAN **DATE**

TOTAL CREDITS: 4

PREREQUISITE(S): N/a

HOURS/WEEK: 4/week

I. COURSE DESCRIPTION:

Wildlife Biology & Management is a practical introductory course to field identification, life histories, habitat requirements and basic management techniques for wildlife species of Ontario. The CICE Student will be required to take part in field trips to assist in identification and habitat assessment for game and non-game birds and mammals. A laboratory component emphasizing anatomy and physiology, parasites and diseases of wildlife, species at risk, management practices and identification of key species is also essential.

II. LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:

Upon successful completion of this course, the CICE student, with the ongoing support of an Educational Assistant, will demonstrate the ability to complete at a modified level:

1. ***Inventory the principle game and non-game wildlife species of uplands and wetlands.***

Potential Elements of the Performance:

- Compile a "Check-list of Birds of the Sault Ste. Marie Area" for a period of one semester
- Identify significant mammal species using video, slides, and field guides
- Have the knowledge necessary to key out less common species using a taxonomic key
- Identify the skulls and hairs of any Ontario mammal using a key
- Identify the fauna of a community by their tracks or sign (e.g. scats, scrapes)
- Design and perform a small mammal inventory using live traps
- Research methods of inventory of larger mammals and birds
- Participate in a check station for big game species or waterfowl.
- Identify and state the stages in the life cycles of 24 major parasites/diseases of wildlife

(This outcome will constitute approximately 50% of final grade)

2. ***Predict the growth potential for any wildlife population.***

Potential Elements of the Performance:

- Differentiate between the theoretical patterns of growth in wildlife populations (exponential, J-shaped, Sigmoid) and explain when each is likely to occur

- Describe factors that affect natality, mortality, survivorship and stability of wildlife populations
- Investigate the ecological relationships between individual wildlife species and the forest habitat, emphasizing:
  - forest soils
  - nutrient cycling
  - successional stages
  - impact of fire, timber management practices, and other forest disturbances
- Examine case studies in Ontario such as:
  - wildlife extirpations and extinction
  - impact of hunting, and trapping on populations
  - impact of other factors such as predation, inter-specific and intra-specific competition
  - success stories in introductions of exotics and re-establishing endangered and extirpated species

(This outcome will constitute approximately 20% of final grade

3. ***Evaluate the health status of wildlife populations.***

Potential Elements of the Performance:

- Dissect and identify anatomical features of mammals and birds to assess "normal" and "abnormal" condition
- Identify common parasites and diseases by diagnosis of symptoms or direct evidence
- Analyze parameters of herd health such as average weights, antler growth etc. from deer check station results
- Record observations in field conditions correctly in an organized, systematic format

(This outcome will constitute approximately 15% of final grade)

4. ***Develop an understanding of the importance of a wildlife management plan for a wildlife species, through researching and reporting on findings.***

Potential Elements of the Performance:

- Have an understanding of, and ability to summarize the wildlife planning process and solve (with 1:1 assistance) a simple scenario based on this process
- Review the values of wildlife that must be considered in a management plan, and discuss the possible approaches to wildlife management
- Discuss current management principles and problems that may develop from each.
- Using resources from Media Services, your instructor, the Internet, and other libraries and agencies, be responsible for conducting research and reporting on an assigned species (or group of similar species) with wildlife management as a main focus. This will include:
  - Biological life history and reproductive potential
  - Ecological relationships
  - Limiting and compensating factors on growth
  - Behavioural traits
  - Present and future management

(This outcome will constitute approximately 15% of final grade)

III. TOPICS:

1. Wildlife Population growth
2. Wildlife values and management
3. Parasite and disease identification and diagnosis
4. Mammal Identification
5. Mammal anatomy, physiology and state of health
6. Wildlife Ecology and habitat requirements

IV. REQUIRED RESOURCES/TEXTS/MATERIALS:

A comprehensive reference list will be distributed to students in first class of semester.

Your Sault College Library will also contain a number of texts and periodicals, which could prove useful.

V. EVALUATION PROCESS/GRADING SYSTEM:

Assignment due dates will be clearly indicated when assignments are given out and penalties will apply for late submissions. Assignments will be due at noon on the date specified, regardless of class schedule. After the specified due date and time, the penalty imposed will be a 10% reduction in value per college scheduled class day or portion thereof. After 10 late days the assignment is technically worth zero; however, it is required that it still be submitted. A final grade will be derived from the results of theory and practical tests and at least one assignment (number to be finalized in class).

Theory Tests (all equal value)	Total = 50%
Assignments (all equal value)	Total = 15%
Practical Tests (all equal value)	Total = 35%
Volunteer activity (bonus – 5%)	
	100%

The following semester grades will be assigned to students in post-secondary courses:

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.

Note: For such reasons as program certification or program articulation, certain courses require minimums of greater than 50% and/or have mandatory components to achieve a passing grade.

It is also important to note, that the minimum overall GPA required in order to graduate from a Sault College program remains 2.0.

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 703 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.

CICE Modifications:

Preparation and Participation

1. An Integrative Educational Assistant 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 Integrative Educational Assistant may not attend all classes with the student(s), support will always be available. When the Integrative Educational Assistant does attend classes he/she will remain as inconspicuous as possible.

CICE Modifications:

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 the Learning Assistance Centre with assistance from an Integrative Educational Assistant.

The Integrative Educational Assistant 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 Integrative Educational Assistant 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.