SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY

SAULT STE. MARIE, ONTARIO



COURSE OUTLINE

COURSE TITLE: WILDLIFE BIOLOGY AND MANAGEMENT

CODE NO.: NRT205 <u>SEMESTER</u>: F09

PROGRAM: Fish and Wildlife Technician

AUTHOR: T. Winter

<u>DATE</u>: June 2009 <u>PREVIOUS OUTLINE DATED</u>: June

2008

APPROVED: "B. Punch"

CHAIR DATE

TOTAL CREDITS: 4

PREREQUISITE(S): N/A

LENGTH OF 16 weeks 64

COURSE: TOTAL CREDIT HOURS:

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introductory course to field identification, life histories, habitat requirements and basic management techniques for wildlife species of Ontario. Students 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 student will demonstrate the ability to:

1. Identify and inventory the principle game and non-game wildlife species of uplands and wetlands.

Potential Elements of the Performance:

- 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 many Ontario mammal species using a key.
- 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.
- 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.
- Prepare and present a report on selected wildlife 'families' and 'Orders' describing characteristics of the classifications and life histories of the Ontario residing species within each group.

(This outcome will constitute approximately 30% of final grade)

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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:
 - impact of hunting, and trapping on populations
 - impact of other factors such as predation, inter-specific and intra-specific competition
 - invasive species
 - Species at Risk impacts, categories, policy and related legislation.
 - wildlife extirpations and extinction
- Complete a report on a Species at Risk in Ontario noting factors affecting growth potential for the species populations, critical habitat components, and present designations.

(This outcome will constitute approximately 25% of final grade

3. Demonstrate knowledge of wildlife anatomy and evaluate the health status of wildlife populations.

Potential Elements of the Performance:

- Dissect and identify anatomical features of mammals.
- Perform a necropsy on a deceased bird or mammal species by examination of external and internal anatomy to determine normalcy and potential causes of death.
- Identify the components of the alimentary tract and its associated organs.

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- Write up a necropsy report that completely describes the specimen, its condition, age etc. and necropsy results.
- Perform a comprehensive food habit investigation and write a report based on your results.
- Identify and state the stages in the life cycles of major parasites/diseases of wildlife.
- Identify common parasites and diseases by diagnosis of symptoms or direct evidence.

(This outcome will constitute approximately 25% of final grade)

4. Research wildlife management planning and formulate a wildlife management plan for a selected wildlife species.

Potential Elements of the Performance:

- Summarize the wildlife planning process and solve 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, conduct research and develop a management plan outline for an assigned species (or group of similar species) that will include:
 - Biological life history and reproductive potential
 - Ecological relationships
 - Limiting and compensating factors on growth
 - Behavioural traits
 - Present and future management
- OR using the same resources, develop a POSITION PAPER on a current controversial issue in wildlife management that will include history of the issue, state of understanding on the issue, and your position.

(This outcome will constitute approximately 20% of final grade)

III. TOPICS:

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

IV. REQUIRED RESOURCES/TEXTS/MATERIALS:

- Bolen, E. G., and W. L. Robinson, 2003. *Wildlife Ecology and Management* 5th ed.
- Cooper/Winter, 2009. Wildlife Biology and Management Study Guide and Lab Manual NRT 205. Sault College.
- Field Guide to mammals.
- Dissection Kit (with new blades)
- Lab coat and safety glasses.

V. EVALUATION PROCESS/GRADING SYSTEM:

Assignment due dates will be clearly indicated when assignments are given out and penalties will apply for late submissions.

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.

A final grade will be derived from the results of theory test and quizzes, practical tests, and assignments.

Theory tests/assignments = 60%Lab tests/assignments = 40%

TOTAL 100%

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The following semester grades will be assigned to students:

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Grade	<u>Definition</u>	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.	
X	A temporary grade limited to situations with extenuating circumstances giving a	
	student additional time to complete the	
NID	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:

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.

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.

Prior Learning Assessment:

Students who wish to apply for advance credit transfer (advanced standing) should obtain an Application for Advance Credit from the program coordinator (or the course coordinator regarding a general education transfer request) or academic assistant. Students will be required to provide an unofficial transcript and course outline related to the course in question. Please refer to the Student Academic Calendar of Events for the deadline date by which application must be made for advance standing.

Credit for prior learning will also be given upon successful completion of a challenge exam or portfolio.

Substitute course information is available in the Registrar's office.

Disability Services:

If you are a student with a disability (e.g. physical limitations, visual impairments, hearing impairments, or learning disabilities), you are encouraged to discuss required accommodations with your professor and/or the Disability Services office. Visit Room E1101 or call Extension 2703 so that support services can be arranged for you.

Communication:

The College considers **WebCT/LMS** as the primary channel of communication for each course. Regularly checking this software platform is critical as it will keep you directly connected with faculty and current course information. Success in this course may be directly related to your willingness to take advantage of the **Learning Management System** communication tool.

Plagiarism:

Students should refer to the definition of "academic dishonesty" in *Student Code of Conduct*. A professor/instructor may assign a sanction as defined below, or make recommendations to the Academic Chair for disposition of the matter. The professor/instructor may (i) issue a verbal reprimand, (ii) make an assignment of a lower grade with explanation, (iii) require additional academic assignments and issue a lower grade upon completion to the maximum grade "C", (iv) make an automatic assignment of a failing grade, (v) recommend to the Chair dismissal from the course with the assignment of a failing grade. 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.

Student Portal:

The Sault College portal allows you to view all your student information in one place. **mysaultcollege** gives you personalized access to online resources seven days a week from your home or school computer. Single log-in access allows you to see your personal and financial information, timetable, grades, records of achievement, unofficial transcript, and outstanding obligations, in addition to announcements, news, academic calendar of events, class cancellations, your learning management system (LMS), and much more. Go to https://my.saultcollege.ca.

Electronic Devices in the Classroom:

Students who wish to use electronic devices in the classroom will seek permission of the faculty member before proceeding to record instruction. With the exception of issues related to accommodations of disability, the decision to approve or refuse the request is the responsibility of the faculty member. Recorded classroom instruction will be used only for personal use and will not be used for any other purpose. Recorded classroom instruction will be destroyed at the end of the course. To ensure this, the student is required to return all copies of recorded material to the faculty member by the last day of class in the semester. Where the use of an electronic device has been approved, the student agrees that materials recorded are for his/her use only, are not for distribution, and are the sole property of the College.

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. It is the departmental policy that once the classroom door has enclosed, the learning process has begun. Late arrivers will not be granted admission to the room.

Tuition Default:

Students who have defaulted on the payment of tuition (tuition has not been paid in full, payments were not deferred or payment plan not honoured) as of the first week of *November* will be removed from placement and clinical activities. This may result in loss of mandatory hours or incomplete course work. Sault College will not be responsible for incomplete hours or outcomes that are not achieved or any other academic requirement not met as of the result of tuition default. Students are encouraged to communicate with Financial Services with regard to the status of their tuition prior to this deadline to ensure that their financial status does not interfere with academic progress.