

**SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY**

**SAULT STE. MARIE, ONTARIO**



Sault College

**COURSE OUTLINE**

**COURSE TITLE:** SECOND YEAR FISH & WILDLIFE FIELD CAMP  
**CODE NO. :** NRT 251 **SEMESTER:** 3  
**PROGRAM:** FISH & WILDLIFE TECHNICIAN  
**AUTHOR:** VALERIE WALKER & TERI WINTER  
**DATE:** AUG 2008 **PREVIOUS OUTLINE DATED:** JUNE 2007  
**APPROVED:** B. Punch  
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**CHAIR** **DATE**  
**TOTAL CREDITS:** 2  
**PREREQUISITE(S):** NONE  
**HOURS/WEEK:** N/A

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*For additional information, please contact Brian Punch, Chair  
The School of the Natural Environment, Technology & Skilled Trade  
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**I. COURSE DESCRIPTION:**

This 5 day field camp provides a hands-on, practical experience specific to F&W studies. Emphasis will be placed on field techniques and surveys to evaluate fish and wildlife populations and assess their habitats (e.g. Ontario Wetland Habitat Evaluation, Ontario Aquatic Habitat (Lake) Inventory Survey, Ontario Stream Assessment Protocol). Students will demonstrate the proper use of field instruments, traps and nets. In addition, the correct procedures for humane capture, handling and marking of wild animals will be practiced. All terrain vehicle operation, safety and basic maintenance will be reinforced.

**II. LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:**

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

**1. Conduct a lake survey using standard equipment and methodology****Potential Elements of the Performance:**

- effectively use passive and active fish capture techniques such as gill nets, trap nets, minnow traps and seine nets
- practice efficient and humane procedures to capture, handle fish
- process fish by determining and recording species identification; total length; fork length; weight; sex; stomach contents; state of health; presence of parasites, tags or marks and by removing scales, fin rays cleithrum and/or otoliths for age determination
- select and use appropriate field equipment to collect, document and preserve small littoral fish and aquatic invertebrates
- correctly operate and where necessary, calibrate the following instruments and equipment: oxygen meter, conductivity meter, pH meter, HYDROLAB, secchi disc, Juday plankton net, Eckman dredge
- accurately map riparian vegetation, substrate types and other shoreline features for physical features map
- correctly operate a Bathymetric Automated Survey System (B.A.S.S.) unit to map lake basin profile
- safely operate an outboard motor under field conditions

**2. Assess physical processes and channel structure of a stream**Potential Elements of the Performance:

- the Ontario Stream Assessment Protocol field procedures for assessing physical processes and channel structure
- accurately define site boundaries of the stream site
- set up transects and observation points
- correctly measure hydraulic head (velocity), active channel width, instream cover, maximum particle size, bank stability, bank vegetation and cover type, stream bearing
- classify stream substrate types

**3. Capture Aquatic Invertebrates for collection requirements**Potential Elements of the Performance:

- correctly use dip nets and surber sampler in the collection of aquatic invertebrates
- proper preserve and document invertebrates collected
- accurately record habitat variables of collection location

**4. Complete field related components to complete a wetland evaluation**Potential Elements of the Performance:

- follow the Ontario Wetland Evaluation System protocol
- accurately identify type and define wetland boundaries
- identify and map wetland biological, social, hydrological and special feature components.

**5. Complete in-field wildlife surveys**Potential Elements of the Performance:

- follow the Marsh Monitoring Program Protocol to survey marsh birds and amphibians
- accurately perform sandhill crane behavioral survey
- correctly use telemetry equipment in collecting location data for introduced Elk.
- Accurately perform grouse and small mammal surveys and calculate population estimations.

6. **Organize field data into neat, accurate and complete standardized field forms and field maps**

Potential Elements of the Performance:

- construct an accurate lake physical features map
- neatly and accurately complete a Lake Summary form, Gill Net Catch Record Forms, Field Collection Records, Scale Sample Envelops associated with a lake survey
- neatly and accurately complete field forms associated with the Ontario Stream Assessment Protocol
- perform basic calculations to summarized survey data
- construct a wetland vegetation and features map to be used to complete a wetland evaluation.
- neatly and accurately complete habitat description forms associated with the Marsh Monitoring Program Protocol.
- neatly and accurately complete field forms for wildlife survey data.

**III. TOPICS:**

1. Wetland Habitat Evaluation
2. Lake/Stream Survey
3. Aquatic Invertebrate Collection
4. Wildlife Surveying Techniques
5. Wildlife Population Studies

**IV. REQUIRED RESOURCES/TEXTS:**

1. Dodge, D.P et al. 1986. Manual of Instructions - Aquatic Habitat Inventory Surveys. Fisheries Branch, OMNR (ONLINE)
2. Kurta, Allen. 1995. Mammals of the Great Lakes Region. Fitzhenry and Whiteside. Toronto. 376 p.
3. Newmaster, S.G., A.G. Harris and L.J. Kershaw. 1997. Wetland Plants of Ontario. Lone Pine Publishing. Edmonton, Alberta. 240 p.
4. OMNR. 1993. Ontario Wetland Evaluation System (Northern Manual). NEST Technical Manual TM-001. 171 p (Manual to be provided)
5. Second Year Fish & Wildlife Field Camp Manual. 2008 Sault College, Sault Ste. Marie
6. Scott W.B. and E.J. Crossman. 1998. Freshwater Fishes of Canada. Galt House Publications Ltd., Oakville, Canada
7. Amphibian and Reptile identification Field Guide.
8. Wildlife Tracks and Signs Field Guide.
9. Ontario Bird Identification Field Guide.

**V. EVALUATION PROCESS/GRADING SYSTEM:**

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

<u>Grade</u>	<u>Definition</u>
S	Satisfactory
U	Unsatisfactory
W	Student has withdrawn from the course without academic penalty.

The grade received will be based on attendance and participation. **MANDATORY** attendance and participation is required for all field activities for a satisfactory (S) grade.

**NO ALCOHOL, ILLEGAL DRUGS or FIREARMS ALLOWED IN CAMP**  
 Those students not complying with the Student Code of Conduct will be withdrawn from camp and receive an F grade.

**NOTE:** This course provides an opportunity for field data collection fundamental to mapping exercises and analysis in both Aquatic Surveys (NRT 246-3) and Wetland Management (NRT 259-4). Failure to receive a satisfactory (S) grade in F&W Field Camp may seriously hamper success in both Aquatic Surveys and Wetland Management.

**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 2703 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.

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*. 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.

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 *June* 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.

**VII. 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.

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