

SAULT COLLEGE OF APPLIED ARTS & TECHNOLOGY
SAULT STE MARIE, ON



COURSE OUTLINE

Course Title: FALL CAMP – FISH & WILDLIFE

Code No.: NRT308-2 Semester: 5

Program: INTEGRATED RESOURCE MANAGEMENT
TECHNOLOGY

Author: Valerie Walker and Harold Cooper

Date: JUNE 2000 Previous Outline Date: NEW

Approved: _____
Dean, Natural Resources Date

Total Credits: 2 Prerequisite(s): none

Length of Course: 5 DAYS

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*For additional information, please contact Joe Fruchter, Dean, School of Natural Resources,
(705) 759-2554, Ext. 688*

I. COURSE DESCRIPTION:

This 5 day field camp provides a hands on, practical experience specific to F&W students. Emphasis will be placed on field techniques and surveys to evaluate fish and wildlife populations and assess their habitats. 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. Demonstrate leadership in field environment.Potential Elements of the Performance:

- assist field camp staff in logistics and planning of each day's activities
- assist staff in maintenance and repair of equipment
- discuss daily activities with students and assist in clarifying instructions or over-coming problems
- evaluate the contribution of each team member as they participate in field activities
- evaluate the effectiveness of each exercise and suggest improvements for subsequent classes

2. Correctly use field equipment to assess fish and wildlife populations and habitatPotential Elements of the Performance:

- effectively use passive and active fish capture techniques such as gill nets, trap nets, minnow traps and seine nets
- correctly set live traps and kill traps for fur-bearer control, small mammals inventory and nuisance animal control such as leghold, conibear and Bailey beaver traps, Aldrich foot snares and harvest traps
- demonstrate the safe and proper use of chemical immobilization equipment
- properly operate telemetry equipment for determining animal presence and movement
- correctly operate and where necessary, calibrate the following

instruments and equipment: oxygen meter, conductivity meter, pH meter, HACH kit, HYDROLAB, secchi disc, Juday plankton net, Kemmerer bottle, Wisconsin plankton net, sample tube, echo sounder (Lowrance X-1550), current meter, surber sampler

- correctly clean, repair, maintain and store field equipment
- safely operate and maintain an ATV under field conditions

3. **Use proper field techniques to assess fish and wildlife populations and habitat**

Potential Elements of the Performance:

- conduct a lake survey as outlined in MNR's Manual of Instructions - Aquatic Habitat Inventory Surveys
- map aquatic vegetation communities using the methodology described in MNR's Ontario Wetland Habitat Evaluation Manual
- practice efficient and human procedures to capture, handle and mark wild animals
- identify, determine vital statistics (sex, age, weight, maturity) of captured wildlife species
- 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
- properly conduct a King Strip Census to assess a ruffed grouse population
- properly conduct a Peterson Index to estimate local small mammal populations
- select and use appropriate field equipment to collect, document and preserve small littoral fish and aquatic invertebrates
- estimate stream velocity and discharge
- design and conduct a habitat evaluation survey for a big game species such as deer, elk or moose
- conduct an auditory index survey to estimate population trends for owl, sandhill cranes, bats

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

Potential Elements of the Performance:

- construct an accurate transect map and produce corresponding depth sounding recordings
- construct an accurate lake physical features map
- construct an accurate aquatic vegetation community 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 King Census and the Peterson Index
- neatly and accurately complete field forms associated with a habitat evaluation survey
- perform basic calculations to summarized survey data

III. TOPICS:

1. Wetland Habitat Evaluation
2. Lake Survey
3. Wildlife Population and Habitat Surveys
4. Wildlife Trapping and Immobilization Techniques

IV. REQUIRED RESOURCES/TEXTS:

1. Dodge, D.P et al. 1986. Manual of Instructions – Aquatic Habitat Inventory Surveys. Fisheries Branch, OMNR
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
5. Fish & Wildlife Field Manual. Sault College, Sault Ste. Marie

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

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.

NOTE: This course provides an opportunity for field data collection fundamental to mapping exercises and analysis in both Aquatic Surveys (NRT 246-3) and Wildlife Biology & Management (NRT 205-4). Failure to receive a satisfactory (S) grade in F&W Field Camp may seriously hamper success in both Aquatic Surveys and Wildlife Biology & 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 instructor and/or the Special Needs office. Visit Room E1204 or call Extension 493, 717, or 491 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 post-secondary institutions.

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 instructor.

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.