SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY

SAULT STE. MARIE, ONTARIO

COURSE OUTLINE

COURSE TITLE: 2nd Year NET Fall Field Camp

CODE NO. : NET 201 **SEMESTER:** F15

PROGRAM: Natural Environment Technician / Technologist

AUTHOR: Ryan Namespetra (Coordinator) / Rob Routledge

DATE: June 2015 **PREVIOUS OUTLINE DATED:** May 2014

APPROVED: **"Colin Kirkwood"** **June/15**

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DEAN **DATE**

TOTAL CREDITS: 2

PREREQUISITE(S): None

HOURS/WEEK: N/A

For additional information, please contact Colin Kirkwood,
Dean, Environment, Technology & Business
(705) 759-2554, Ext. 2688

I. COURSE DESCRIPTION:

This field camp provides a hands-on, practical experience specific to environmental studies. Emphasis will be placed on field techniques and surveys to evaluate fish populations and assess their habitats (e.g. Ontario Aquatic Habitat (Lake) Inventory Survey, Ontario Stream Assessment Protocol). Students will demonstrate the proper use of field instruments, traps and nets. Students will classify a range of local ecosystems using current Ontario Ecological Land Classification tools at the Ecosite level. Small mammal live-trapping surveys will be conducted and basic radio-tracking skills will be developed using blind tests with VHF radio-collars. Students will also review minimum standards for culvert installations on Crown Land, discuss best practices for erosion and sediment control, and conduct a culvert inspection.

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, YSI metre, 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:

- properly demonstrate 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 samplers in the collection of aquatic invertebrates
- proper preserve and document invertebrates collected
- accurately record habitat variables of collection location

4. **Complete field assessment of water-crossings.**

Potential Elements of the Performance:

- review minimum standards for culvert installations on Crown Land
- review best practices for erosion and sediment control at water crossings (bridges/culverts)
- review culvert sizing process
- conduct a complete OMNR Culvert Inspection at one or more water crossings

5. **Conduct in-field terrestrial ecosystem surveys.**

Potential Elements of the Performance:

- assess degree of accuracy of locating ‘blind’ VHF radio-collars placed in known locations using triangulation
- demonstrate ability to conduct a small mammal survey (trapping, handling, and processing)
- check established cover board arrays to detect salamanders

6. **Classify two contrasting local ecosystems at the Ecosite level and determine suitability for selected wildlife using non-spatial habitat suitability models.**

   Potential Elements of the Performance:

   - competently use a dutch auger
   - describe a mineral soil profile from extracted auger samples by competently delineating soil horizons and reliably collecting soil parameters (e.g., depth, textural class, coarse fragment classification) to enable classification to an ecosite using decision keys in *Ecosites of Ontario*
   - determine the potential value of a site for selected wildlife using non-spatial habitat suitability models incorporating Ecosite and forest development stages (*Revised habitat suitability models for the Great Lakes-St. Lawrence and Boreal East forests, OMNRF*)

7. **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
   - neatly and accurately complete field forms for soils analysis
   - perform calculations and make conclusions as to the harvest compliance level.

III. TOPICS:

1. Ecosites
2. Lake/Stream Survey
3. Aquatic Invertebrate Collection
4. Water Crossing Inspection
5. Wildlife Surveys

IV. REQUIRED RESOURCES/TEXTS/MATERIALS:

1. Manual of Instructions - Aquatic Habitat Inventory Surveys. Fisheries Branch, OMNR (ONLINE)
2. Second Year NET Field Camp Manual. 2012 Sault College, Sault Ste. Marie.
3. For a full list of personal gear, refer to "Student Equipment Checklist" in the Second Year NET Field Camp Manual.

Recommended

5. Mammal field guide (e.g., Mammals of the Great Lakes Region)
6. Bird field guide (e.g., Peterson Field Guide to Birds of Eastern North America)
7. Tracks and signs field guide (e.g., Tracking and the Art of Seeing: How to Read Animal Tracks and Sign)

V. EVALUATION PROCESS/GRADING SYSTEM:

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

Grade	Definition
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, analysis and creation of a Lake Survey Technical Report in Aquatic Ecosystem Surveys (NET 200-3). Failure to receive a satisfactory (S) grade in F&W Field Camp may seriously hamper success in Aquatic Ecosystem Surveys.

If a faculty member determines that a student is at risk of not being successful in their academic pursuits and has exhausted all strategies available to faculty, student contact information may be confidentially provided to Student Services in an effort to offer even more assistance with options for success. Any student wishing to restrict the sharing of such information should make their wishes known to the coordinator or faculty member.

VI. COURSE OUTLINE ADDENDUM:

1. Course Outline Amendments:
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.

2. 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.

3. 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 Key Dates Calendar 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. Student Services, located in E1101, can provide information regarding the Prior Learning Assessment and Recognition policy or it can be viewed on the student portal.

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

4. 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.

5. Communication:
The College considers Desire2Learn (D2L) 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 this Learning Management System (LMS) communication tool.

6. Accessibility 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 the Accessibility Services office. Visit Room E1101, call Ext. 2703 or email studentsupport@saultcollege.ca so that support services can be arranged for you.

7. Audio and Video Recording 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. Students with disabilities who require audio or visual recording devices in the classroom as an accommodation will receive approval from their counsellor once the Audio and Video Recording Devices in the Classroom Policy has been reviewed by the student. Recorded classroom instruction will be used only for individual academic use and will not be used for any other purpose. Recordings may only be used for individual study of materials presented during class and may not be published or distributed. Intentional misuse of audio and video recordings or intentional misrepresentation when requesting the use of a device for recording shall constitute a violation of this policy and laws protecting intellectual property.

8. Academic Dishonesty:
Students should refer to the definition of "academic dishonesty" in the Student Code of Conduct. Students who engage in academic dishonesty will be issued a sanction under the Student Code of Conduct which could lead to and include expulsion from the course/program. In order to protect students from inadvertent plagiarism, to protect the copyright of the material referenced, and to credit the author of the material, students must use a documentation format for referencing source material.

9. 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 (fall semester courses), first week of March (winter semester courses) or first week of June (summer semester courses) will be removed from placement and clinical activities due to liability issues. 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.