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

COURSE OUTLINE

Course Title: RESOURCE SAMPLING

Code No.: NRT223 Semester: 3

Program: FISH & WILDLIFE TECHNICIAN

Author: JOHN CLEMENT/JASON VANSLACK

Date: JUNE 00 Previous Outline Date: JUNE 99

Approved: _____ _____
Dean, Natural Resources Programs — Date

Total Credits: 4 Total Credit Hours: 64
Prerequisite(s): None
Length of Course: 4 hours per week x 16 weeks

RESOURCE SAMPLING **NRT223-3**
Course Name Code No.

I. COURSE DESCRIPTION:

This course is designed to provide the student with the skills and knowledge required to collect representative resource samples in the field, produce technical reports illustrating the results of the data and present this data in a professional manner to an audience using effective written and oral presentation skills.

II. LEARNING OUTCOMES:

1. The student will display the ability to conduct representative natural resource sampling in the field.

Potential Elements:

- Define accurately the terms normally associated with resource samples.
- Describe the four stages of all natural resource samples.
- Keep neat, accurate and complete field notes and tally sheets.
- Collect field data using the appropriate field equipment in a safe, accurate and precise manner.
- Design, use and appreciate equipment checklists for various natural resource surveys as part of the planning for natural resource samples.
- Use maps and aerial photographs to accurately locate sample plots in the field.
- Locate sample plots in the field in a statistically, sound manner.
- Describe the relationship between bias, accuracy, precision and the impact of this on reliability.
- Describe the influence of natural variations, sample intensity, stratification and economic considerations in the setting up of natural resource surveys.
- Relate sampling theory concepts to natural resource samples.
- Conduct a minimum of 5 different natural resource surveys in an accurate and precise manner.
- Describe the methodology involved with 5 different natural resource surveys.

2. The student will display the ability to take data from actual field surveys performed and calculate descriptive statistics in order to determine the reliability of the data.

Potential Elements of the Performance:

- Comprehend and calculate the descriptive stats involved with resource sampling and sampling theory such as means, standard deviations, standard error of the mean, confidence limits, T tests, sample intensity and the number of samples required to achieve the desired confidence limit.
- Calculate the descriptive stats for a minimum of 5 different natural resource samples.

2. The student will display the ability to prepare technical reports which present the results of natural resource surveys.

Potential Elements of the Performance:

- Prepare a minimum of 5 technical reports which present the results of natural resource surveys.
- Calculate the required results for various natural resource surveys using the appropriate formula.
- Verify that the results are accurate and representative.
- Interpret the results of the surveys in order to make management recommendations.

4. The student will display the ability to make technical oral presentations of the results of natural resource samples.

Potential Elements of the Performance:

- Plan and organize the oral presentation of the results of natural resource samples.
- Field questions and defend results and survey procedures.
- Present the results of natural resource surveys to the class.
- Use various presentation media such as overheads, blackboard and computer assisted presentations.

III. TOPICS:

1. Resource Sampling Concepts
2. Resource Sampling Design
3. Forestry Surveys
4. Fish & Wildlife Surveys
5. Parks Surveys
6. Applied Stats for Resource Sampling
7. Formats for Technical Reports
8. Hand Held Microcomputers
9. Presentation Techniques

IV. REQUIRED RESOURCES/TEXTS/MATERIALS:

Clement, J. 1997. *Resource Sampling Study Guide*. Sault College of Applied Arts & Technology. Sault Ste. Marie, ON.

V. EVALUATION PROCESS/GRADING SYSTEM:

Midterm Exam	20%
Final Exam	20%
Surveys & Presentations	60%
	100% Total

VI. SPECIAL NOTES:

Your instructor reserves the right to modify the course, as he/she deems necessary to meet the needs of students.

This course is at least 50% fieldwork. Steel toed work boots and hardhats are required for all field trips.

YOU ARE NOT PERMITTED TO ATTEND AN OUTDOOR FIELD TRIP WITHOUT HARD HATS AND STEEL TOE WORK BOOTS.

Special Needs

If you are a student with special needs (eg. Physical limitations, visual impairments, hearing impairments, learning disabilities), you are encouraged to discuss required accommodations with the instructor and/or contact the Special Needs Office, Room E1204, Ext. 493, 717 or 491 so that support services can be arranged for you.

Plagiarism

Students should refer to the definition of "academic dishonesty" in the "Statement of Students 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, as may be decided by the professor.

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.

Advanced Standing

Students who have completed an equivalent post-secondary course should bring relevant documents to the Coordinator, Natural Resources Programs.

Retention of Course Outlines

It is the responsibility of the student to retain all course outlines for possible future use in gaining advanced standing at other post-secondary institutions.

Substitute course information is available at the Registrar's Office.

VI. PRIOR LEARNING ASSESSMENT:

Please contact the Prior Learning Assessment Office for further information.