SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY

SAULT STE. MARIE, ONTARIO

SAULT COLLEGE

COURSE OUTLINE

COURSE TITLE: TERRESTRIAL ECOSYSTEM SURVEYS

CODE NO. : NET 205   **SEMESTER:**   4

PROGRAM: NATURAL ENVIRONMENT TECHNICIAN / TECHNOLOGY

AUTHOR: V. WALKER

DATE: JAN 2011   **PREVIOUS OUTLINE DATED:**   NA

APPROVED:

_____   JAN 2011

CHAIR   DATE

TOTAL CREDITS: 4

PREREQUISITE(S): NONE

HOURS/WEEK: 4

I.   COURSE DESCRIPTION:

This course is designed to provide the student with the skills and knowledge required to design representative surveys as well as to collect and analyze field data for a variety of resource applications. Statistical analysis, manipulation and presentation of data in professional table and graphic format will be performed using Excel. GPS units, GPS utilities software, aerial photography and Google Earth Pro will be used to locate sample plots.

II.   LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:

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

1.   **Design a representative resource survey**

Potential Elements of the Performance:

- explain the need for representative filed data as a basis for management decisions
- describe fixed and variable area plots types and how area is determined for each
- determine the number of plots based on sampling intensity
- determine the location and selection of plots using simple random sampling, two stage sampling or systematic sampling
- calculate and use plot multipliers
- itemize the requirements for a representative resource survey

This learning outcome will constitute approximately 10% of the course.

2.   **Accurately collect resource field data**

Potential Elements of the Performance:

- use maps, GPS units, aerial photographs and/or Google Earth Pro imagery to accurately locate plots in the field
- itemize equipment requirements
- use equipment check lists
- accurately follow instructions for field data collection

- use the appropriate field equipment in a safe, accurate and

precise manner
- keep neat, accurate and complete field notes, hard and electronic tally sheets

This learning outcome will constitute approximately 40% of the course.

4. **Format, present and interpret field data in summary reports**

   Potential Elements of the Performance:

   - use properly the Natural Resources Standard Technical Report Format
   - construct and analyze various graphical representations of data including line and scatter plots, histograms, bar graphs, frequency polygons and circle graphs using appropriate software
   - construct tables with appropriate labels and titles
   - import tables and graphs into a technical report
   - compile data and generate summary statistics
   - interpret and discuss the results of the surveys

   This learning outcome will constitute approximately 50% of the course.

III. TOPICS:

1. Resource Sampling Concepts
2. Silvicultural Assessment
3. Wildlife Population Estimation
4. Wildlife Habitat Evaluation
5. Growth & Yield Survey
6. Creel Survey

IV. REQUIRED RESOURCES/TEXTS/MATERIALS: Available on LMS

1. Resource Sampling Course Manual
2. Making Cents Out of Forest Inventories, Science Development and Transfer Series 002

V. EVALUATION PROCESS/GRADING SYSTEM:

Labs/Assignments/Field Forms	**80%**
Tests	**20%**
	100%

NOTE: Assignments will be reduced at a rate of **10% per day** for late submissions for a period of 5 days after the due date. After 5 days, submissions will be valued at zero (0). All labs/assignments and reports must be submitted regardless of lateness to pass the course.

Attendance during field exercises is **MANDATORY.**
Student missing field work without valid, documented reason will
risk repeating the course.

The following semester grades will be assigned to students:

Grade	Definition	*Grade Point Equivalent*
A+	90 – 100%	4.00
A	80 – 89%	
B	70 - 79%	3.00
C	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 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:

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.

VII.   COURSE OUTLINE ADDENDUM:

The provisions contained in the addendum located on the portal form part of this course outline.