



**I. COURSE DESCRIPTION:**

This course is a survey of natural wetland and forest ecosystems and associated plant communities found in central Ontario. A range of vascular and non-vascular plants and lichens will be identified. Identification of these organisms combined with soil sampling will be used to classify a range of local ecosystems using systems designed for use in Ontario (Forest Ecosystem Classification and Ecological Land Classification). Identification of selected wetland types and associated flora will provide students with skills required to use the Ontario Wetland Evaluation System.

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

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

1. Identify vascular and non-vascular plants and lichens.

Potential Elements of the Performance:

- identify woody and herbaceous plants from previous courses NRT101 and NRT133
- identify selected ferns, horsetails, club-mosses, mosses, lichens, grasses, sedges and wetland plants
- identify, describe and compare the flowering and/or fruiting structures of the grasses, sedges and rushes and use dichotomous keys to identify selected specimens
- identify, describe and compare the reproductive structures and processes found in ferns, mosses and liverworts
- describe the relationship between fungi and green algae, fungi and cyanobacteria, or fungi and both in the lichens
- describe key identification characteristics of selected taxonomic groups
- research botanical and ecological information using online resources

*This learning outcome will constitute approximately 60% of the course's grade*

2. Identify Ontario ecosystems.

Potential Elements of the Performance:

- use field guides to key out representative central Ontario ecosystems
- describe soil in the field and lab to determine characteristics such as texture and moisture to assist in ecosystem classification
- list the basic parameters used in the Forest Ecosystem Classification and Ecological Land Classification systems
- describe the composition and structure of ecosystem conditions using the fact sheets from both classification systems
- demonstrate ability to link ecosystems to management applications

*This learning outcome will constitute approximately 25% of the course's grade*

3. Identify and digitally photograph taxonomically important features of selected vascular and non-vascular plants and lichens.

Potential Elements of the Performance:

- identify a minimum number of selected vascular and non-vascular plants and lichens in the field using available resources
- acquire digital images of a minimum number of taxonomically important identification features for each specimen identified
- present images in a digital herbarium format using PowerPoint or similar presentation software

*This learning outcome will constitute approximately 15% of the course's grade*

**III. REQUIRED RESOURCES/ TEXTS/ MATERIALS:**

- Field Guide to Forest Ecosystems of Central Ontario
- Wetland Plants of Ontario
- Forest Plants of Central Ontario
- Plant Diversity Study Guide (posted on LMS)
- A Guide to the Ferns of Grey and Bruce Counties, Ontario
- Ecosites of Ontario (draft copy supplied by college on loan only)
- Hardhat, reflective vest, rubber boots, safety boots, rain gear, clipboard, pencils

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

ID tests and Keying Exercises	55%
Photo collection	15
Ecosite Classification (field assignments)	20
Final test (ID terminology and Ecosite keying)	10

The following semester grades will be assigned to students:

<u>Grade</u>	<u>Definition</u>	<u>Grade Point Equivalent</u>
A+	90 - 100%	4.00
A	80 - 89%	4.00
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.

**V. 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.

**PLEASE NOTE:**

- Field trips are not optional. The assignments missed while on a field trip cannot be made up. If a student misses a field trip they should make arrangements to attend an alternate lab period. A student who misses 3 or more field trips may be asked to repeat the entire course.
- Students must wear appropriate clothing and safety equipment when on outdoor scheduled field exercises. This will normally include a hard hat, safety boots, safety vest and a raincoat in wet weather. A student who comes prepared for an outdoor exercise in shoes or other inappropriate footwear will be marked absent and will not attend the class and this includes writing tests given in the outdoors.
- Any student who in the judgement of the instructor behaves inappropriately in scheduled classes or copies the work of another student without the instructor's permission, will be subject to all the terms and conditions in the student's rights and responsibilities hand book and may after, reviewing the situation with the instructor, be asked to leave the course with an F grade.
- Smoking will only be allowed in assigned locations on field trips. Smoking is not allowed while conducting field work.