SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY

SAULT STE. MARIE, ONTARIO

COURSE OUTLINE

COURSE TITLE:	**Ecological Land Classification**
CODE NO. :	**NET351** **SEMESTER:** **5**
PROGRAM:	**Natural Environment Technologist - Conservation and Management**
AUTHOR:	**Gerard Lavoie**
DATE:	**September 2011** **PREVIOUS OUTLINE DATED:** **N/A**
APPROVED:	**"B.Punch"**

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CHAIR **DATE**

TOTAL CREDITS:	**3**
PREREQUISITE(S):	N/A
HOURS/WEEK:	**3**

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For additional information, please contact Brian Punch, Chair, Environment and Design School of Technology and Natural Resources (705) 759-2554, Ext. 2681

I. COURSE DESCRIPTION: Using landforms, soil characteristics, indicator plant species and plant communities; students will identify a range of aquatic and terrestrial ecosites in Ontario. Methodologies used in ecosystem classifications will be studied.

II. LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:

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

1. **Gain an understanding of the Ontario Ecosite Land Classification Program**
   Potential Elements of the Performance:

   - Describe the ELC hierarchy and its components.
   - Understand ELC program development, and its purpose.
   - Understand the concept of the ELC system in Ontario.
   - Understand the hierarchy of influence relating to ecological processes.

2. **Describe and identify major landforms occurring in Ontario.**
   Potential Elements of the Performance:

   - Identify landforms and relate their properties and attributes to Ecosite Land Classification.
   - Gain an understanding of Geological Terrain Survey maps (NOEGTS/SOEGTS) and their attributes.
   - Relate small scale terrain survey maps to field calibration data.

3. **Understand and describe ELC mapping conventions and attributes collected.**
   Potential Elements of the Performance:

   - Become familiar with the ELC Field keys and their decision nodes.
   - Understand field calibration plot design and procedures.
   - Understand and describe Ecosite coding structure.
   - Familiarity with soil depth, moisture, chemistry, and texture families.
   - Familiarity with vegetative cover keys, and effective canopy cover.

4. **Relate field collection of data to ELC decision keys.**
   Potential Elements of the Performance:

   - Review and recognize indicator species for various ecosites.
   - Gain an understanding of landform based ecosite groups.
   - Relate Height/Age relationships to site condition (protection forests).
   - Understand vertical and horizontal structure as they relate to ELC.
   - Review species composition, crown closure, age, height…

5. **Understand and Review ELC data and mapping conventions.**
   Potential Elements of the Performance:

   - Understand minimum polygon sizes as they relate to non-forested sites.
   - Understand minimum polygon sizes as they relate to forested sites.
   - Review FIM guidelines and ELC photo interpretation data attributes.
   - Understand photo interpretation methodologies.

6. **Plan, Traverse to, Collect, Record and Present ELC data.**
   Potential Elements of the Performance:

   - Understand plot layout guidelines.
   - Demonstrate ability to navigate to, and mark plot boundaries.
   - Demonstrate ability to identify and key out soils and all vegetation types.
   - Demonstrate complete data recording using tallies, and cameras.
   - Present findings to the class of an ELC site comparison with real data.

III. TOPICS:

1. Introduction to Ecosite Land Classification
2. ELC Hierarchy and Mapping Conventions
3. Glacial History and Major Landform Associations.
4. Engineering Geology Terrain Studies (NOEGTS/SOEGTS)
5. Field Keys to Ecosites of Ontario
6. Field Calibration Plot Design
7. Describing Substrates
8. Ground Cover Assessment
9. Field Sampling Protocol
10. Mineral Substrate Texture Classes
11. Forest Plant Communities and Indicator Species
12. Ecosite Factsheets
13. Inclusions and Complexes

IV. REQUIRED RESOURCES/TEXTS/MATERIALS:

a) Compass
b) Clipboard
c) Steel-toed boots
d) Pencils
e) Hard hat
f) Readings & Tally sheets will be supplied on LMS
g) Field guides

V. EVALUATION PROCESS/GRADING SYSTEM:

Outdoor Labs (5)	50%
ELC presentation	15%
Final Exam	25%
Participation	10%
Total	100%

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)	< 50%	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.

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.

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.

It is the departmental policy that once the classroom door has been closed, the learning process has begun. Late arrivers will generally not be granted admission to the room. This is out of respect for the other students and the professor. The usage of cell phones during class session is prohibited; please respect the learning environment by turning them off.

VII. COURSE OUTLINE ADDENDUM:

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