
Course Name**I. COURSE DESCRIPTION:**

The objective of this course is to provide the student with skills relating to aerial photo interpretation. This will consist of tree species identification, glacial landform identification and ecosite classification. The delineation and identification of forested and non-forested polygons, as it relates to Ecological Land Classification and the Forest Resource Inventory(FRI) specifications, will be the main emphasis of this course.

II. LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:

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

1. Understand the process of aerial photo interpretation.

Potential Elements of the Performance:

- Complete a stereo vision test and depth perception test using stereoscopes
- Show how photo interpretation is important to the management of forest resources.
- Students will be able to prepare photographs before typing
- Familiarize students with F.R.I. photo interpretation specifications.

2. Delineate and Identify Forested and Non Forested polygons

Potential Elements of the Performance:

- The student will be able to identify, delineate and label wetland and non forested polygons
- Delineate forested polygons by differences in height, species, age, soil depth, soil texture and organic soils ,bed rock, slope, moisture and drainage .

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3. Species Identification of Boreal and Great Lakes St. Lawrence tree species.

Potential Elements of the Performance:

- Identification of Conifers (Black Spruce, Jack Pine, Cedar, White Pine, Red Pine, White Spruce, Tamarack, Balsam Fir, Hemlock)
- Identification of Boreal Hardwoods (Trembling aspen, White Birch, Black Ash)
- Identification of Great Lakes St. Lawrence Hardwoods (Sugar Maple, Red Maple, Red Oak, Yellow Birch, White Ash, Basswood, White Elm)
- Use large scale air photos to identify tree species and other forest features such as crown vigour, crown spacing and shrub cover

4. Identify Glacial Landforms and Identify Ecosites on an aerial photograph.

Potential Elements of Performance

- Identify basic landforms (eskers, rock knobs, lacustrine plain, organic terrain). This will help determine soils type and depth.
- Understand and use Noegets maps (Northern Ontario)
- Identify ecosites on an aerial photograph using the OMNR Northwest Region's ecosite keys for interpretation.

5. Determine tree heights and crown closure on an aerial photograph.

Potential Elements of the Performance:

- Determine crown closure
- Determine tree heights by comparison of ground truth information

Course Name**TOPICS:****III.**

1. Identify forested and non-forested polygons.
2. Identification of conifers and hardwoods in the Boreal forest region and the Great Lakes St. Lawrence forest region.
3. Determination of ecosites from an aerial photograph. OMNR FRI specifications and the Ecological Land Classification System
4. Recognize and identify common physical landscape features on aerial photos(geomorphology)
5. Delineated forested and non forested areas on contact print 1:20000 aerial photos and identify the FRI working group

IV. REQUIRED RESOURCES/TEXTS/MATERIALS:

1. Staedtler grease pencils 108-9 black 108-2 red 108-3 blue
2. Metric scale
3. Pocket stereoscope
4. **Training manual** for photo interpretation of ecosites in Northwestern Ontario (available at campus shop)

Supplied by college on a loan basis

NOTE: During the semester students will be using original OMNR aerial photographs. Photographs which are damaged or lost will be replaced by the student at a cost of \$10.00/photo.

Zsilinsky, V.G. 1966. Photographic Interpretation of tree species in Ontario. Ontario Department of Lands and Forests.

Course Name**V. EVALUATION PROCESS**

Landform assignments	15%
Moraines	5%
Fluvial	5%
Lacustrian	5%
Landform test	10
Tree shapes test	3
GLSL/boreal stand ID	5
Boreal photo delineation	10
GLSL photo delineation	10
Photo species ID test	10
Ecosite photo ID test	5
Attendance and participation	12
Ecotyping open book	5
Ecological Land Class.	5
Final test	<u>10</u>
	100%

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

Grade	<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.

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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.**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.