

SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY

SAULT STE. MARIE, ONTARIO



Sault College

COURSE OUTLINE

COURSE TITLE: APPLIED PHOTO INTERPRETATION

CODE NO. : NRT2170 **SEMESTER:** 4

PROGRAM: Forestry Technician

AUTHOR: Mark Harvey

DATE: JAN. 2003 **PREVIOUS OUTLINE DATED:** JAN. 02

APPROVED:

	_____	_____
	DEAN	DATE

TOTAL CREDITS: 3

PREREQUISITE(S): None

LENGTH OF COURSE: 3 hrs/week **TOTAL CREDIT HOURS:** 32

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For additional information, please contact Brian Punch, Acting Dean
School of Natural Resources (705) 759-2554 Ext. 688

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 forest resource inventory 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 both wetland and non forested polygons
- Delineate forested polygons by differences in height, species, age, soils and moisture of the soils

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, Larch, Balsam Fir)
- Identification of Boreal Hardwoods (Trembling aspen, White Birch Black Ash)

Course Name

- Identification of Great Lakes St. Lawrence Hardwoods (Sugar Maple, Red Maple, Red Oak, Yellow Birch, White Ash, Basswood)
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

III. TOPICS:

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.
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

Course Name**IV. REQUIRED RESOURCES/TEXTS/MATERIALS:**

1. Staedtler grease pencils
2. Desk lamp (optional, but recommended)
3. Metric scale
4. Q-tips
5. Rubbing alcohol
6. Make up pads or cotton balls

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.

Sayn-Wittgenstein, L. 1978. Recognition of tree species on aerial Photographs. Forest Management Institute. Canadian Forestry Service. Information Report FmR-X-118

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

V. EVALUATION PROCESS/GRADING SYSTEM:

Evaluation will be based on lab assignments and written tests. Lab assignments will make up 38% of the final grade. There will be 2 written tests that will make up 24% of the final grade, Assignment worth 38% due as per posted schedule. Regular attendance is necessary in that any student missing a lab assignment or test without a legitimate reason or prior notice will receive an I (incomplete) grade on that test or assignment. Students receiving an incomplete on any of the two tests or on the final assignment will receive an R (repeat) grade.

A passing grade in this course is 60%. There will be no rewrite at the end of the semester. Instructor will be available outside class time for additional help.

Course Name

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

<u>Grade</u>	<u>Definition</u>	<u>Grade Point Equivalent</u>
A+	90 - 100%	4.00
A	80 - 89%	3.75
B	70 - 79%	3.00
C	60 - 69%	2.00
R (Repeat)	59% or below	0.00
CR (Credit)	Credit for diploma requirements has been awarded.	
S	Satisfactory achievement in field placement or non-graded subject areas.	
U	Unsatisfactory achievement in field placement or non-graded subject areas.	
X	A temporary grade. This is used in limited situations with extenuating circumstances giving a student additional time to complete the requirements for a course (see <i>Policies & Procedures Manual – Deferred Grades and Make-up</i>).	
NR	Grade not reported to Registrar's office. This is used to facilitate transcript preparation when, for extenuating circumstances, it has been impossible for the faculty member to report grades.	

VI. SPECIAL NOTES:Special Needs:

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. Visit Room E1204 or call Extension 493, 717, or 491 so that support services can be arranged for you.

Retention of course outlines:

It is the responsibility of the student to retain all course outlines for possible future use in acquiring advanced standing at other postsecondary institutions.

Course NamePlagiarism

Students should refer to the definition of “academic dishonesty” in *Student 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.

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.

Substitute course information is available in the Registrar's office.

VII. PRIOR LEARNING ASSESSMENT:

Students who wish to apply for advanced credit in the course should consult the instructor. Credit for prior learning will be given upon successful completion of the following:

VIII. DIRECT CREDIT TRANSFERS:

Students who wish to apply for direct credit transfer (advanced standing) should obtain a direct credit transfer form from the Dean's secretary. Students will be required to provide a transcript and course outline related to the course in question.