SAULT COLLEGE OF APPLIED ARTS & TECHNOLOGY

SAULT STE. MARIE, ONTARIO

COURSE OUTLINE

Course Title: APPLIED PHOTOINTERPRETATION

Code No.: FOR 350-4

Program: FOREST MANAGEMENT

Semester: V

Date: JANUARY, 1988

Author: ERWIN GOERTZ

New: _____   Revision: X
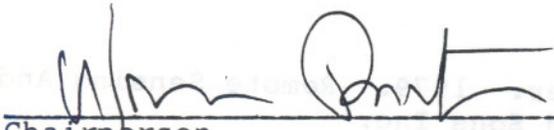
APPROVED: _____   March 9/88
Chairperson   Date

CALENDAR DESCRIPTION

APPLIED PHOTOINTERPRETATION	FOR 350-4
COURSE NAME	COURSE NUMBER

PHILOSOPHY/GOALS:

The student will acquire fundamental knowledge and skills in identifying forest tree species, delineating forest stands, identifying site types through glacial landform recognition and identifying forest damage. Conventional aerial photography (OMNR standards), large-scale aerial photography, and satellite imagery will be involved. In addition, the student will acquire skills needed to plan an aerial photograph mission and will master the transferring of information on aeiral photographs to produce and update maps.

METHOD OF ASSESSMENT (GRADING METHOD):

Evaluation will be based on lab assignments as well as written tests after each unit covered. Lab assignments will make up 40% of the final grade, with tests making up 60%.

GRADES
- A+ 90 - 100%
- A 80 - 89%
- B 70 - 79%
- C 60 - 69%

NOTE: There will be NO REWRITE at the end of the semester

EQUIPMENT REQUIRED:

Pocket stereoscope
Black stabilo grease pencil

TEXTBOOK(S):

Pain, D.P. 1981. Aerial Photography And Image Interpretation For Resource Management. Forest Management Department, Oregon State University, Corvallis, Oregon.

REFERENCES:

Lillesand, T.M., and R.W. Kiefer. 1979. Remote Sensing And Image Interpretation. John Wiley and Sons Inc.

Avery, T.E. and G.L. Berlin. 1985. Interpretation Of Aerial Photographs, 4th edition. Burgess Publishing Co.

Curran, P.J. 1985. Principles Of Remote Sensing. Longman Group Ltd.

Ontario Centre of Remote Sensing. 1982. An Introduction Manual On The Assessment Of Regeneration Success By Aerial Survey. Forest Resources Group. OMNR.

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TOPIC NO.	PERIODS	TOPIC DESCRIPTION
		UNIT I
1	1	.History of remote sensing
		.Importance of remote sensing to forestry (Chapter 17)
2	1	.Testing for stereo vision (Chapter 3)
3	2	.Review of the geometry, scale, horizontal measurements, distances, azimuths and areas on vertical aerial photographs (Chapters 2,4,5)
4	3	.Acquisition and flight planning for aerial photo missions with emphasis on applications in forest management (Chapter 6)
	1	**TEST**
		UNIT II
5	2	.Principles and techniques of photo interpretation (Chapter 13)
6	2	.Tree species identification (Chapter 17)
7	3	.Forest stand delineation (Chapter 17)
8	1	.Identification of forest damage
9	2	.Identification of glacial landforms and drainage patterns (Chapter 14,15)
	1	**TEST**
		UNIT III
10	2	.Transferring of information from aerial photos to produce and update line maps (Chapter 10)
11	1	.Geographic Information Systems and computer mapping
12	2	.Large-scale aerial photography as applied to forest inventories, residue surveys, regeneration surveys and forest damage assessment (Chapter 20)
13	1	.Infrared photography as applied to forest damage assessment and regeneration surveys
		.Satellite imagery use in forest management
	1	**TEST**

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COURSE OBJECTIVES

.draw standard FRI and NTS map symbols, lines & lettering
.determine and use map scale, principles of ratio and proportion
 and similar triangles
.use and maintain drawing and lettering equipment
.identify and delineate features on aerial photos
.measure height, area, distances and directions on aerial
 photographs
.employ field verification methods
.transfer photo detail to a map
.measure area, distance and direction on a map
.plan supplementaary aerial photography
.order aerial photographs and maps
.determine and use procedures for identification of field location
.read maps and photographs
.determine factors influencing route selection
.recognize and interpret geological features on aerial photos
.specify the relationship between timber type, landform and soil
.recognize sources of materials for road construction