

SAULT COLLEGE OF APPLIED ARTS & TECHNOLOGY

SAULT STE. MARIE, ONTARIO

COURSE OUTLINE

Course Title: FOREST MAPPING
Code No.: FOR 115-3
Program: FORESTRY
Semester: TWO
Date: JANUARY, 1987
Author: ERWIN GOERTZ

New: _____ Revision: _____ X

APPROVED:


Chairperson


Date

Jan 28/87

CALENDAR DESCRIPTION

FOREST MAPPING

FOR 115-3

COURSE NAME

COURSE NUMBER

PHILOSOPHY/GOALS:

The overall aim of forest mapping is to teach the skills necessary for the professional presentation of a technical map.

GENERAL OBJECTIVES:

To prepare, use and interpret basic forest maps.

METHOD OF ASSESSMENT (GRADING METHOD):

Evaluation will be based on weekly assignments and weekly quizzes relating to the work completed. All assignments are due in one week. 100% attendance is mandatory. A student will be permitted to accumulate up to two (2) late assignments. Any additional late assignments will be based on 50% of the total possible marks. There will be a final class assignment covering all of the semester's work in the last class.

Grades: A - 85%
 B - 75%
 C - 60%

TEXTBOOK(S):

Lab Manual - Forest Mapping

References:

1. Blair, C.L., R.I. Simpson, The Canadian Landscape: Map and Air Photo Interpretation, Copp Clark Pitman.
2. McHarg, I.L., Design with Nature, Natural History Press.
3. Raisz, E., Principles of Cartography, McGraw-Hill.
4. Robinson, A.H., Elements of Cartography, John Wiley & Sons.
5. Thomasson, R.D., Ontario Land Inventory: Wildlife, Ministry of Natural Resources.

MATERIALS REQUIRED:

MANUAL

Lab Manual - Forest Mapping

EQUIPMENT

2H, H pencils
pencil sharpener
white bond paper
masking tape
white eraser

Engineer's scale (10-60 points)
Metric scale (1:500 to 1:2500)
Ames lettering guide
Set square
T-Square
Navigational protractor
Staedtler pen set (0.50 & 0.35 tips)

GRADING METHOD

- 1. QUIZZES (weekly)10%
- 2. ASSIGNMENTS70%

Freehand Lettering (10 hours) Marks

Practice

- 1. dendrology symbols 10
- 2. metric symbols 10
- 3. metric rules 10
- 4. diameters 10
- 5. Engineer's scale 15

Mapping (10 hours)

- 6. azimuths and bearings 15
- 7. base map 15
- 8. forest stand map 20
- 9. topographic map 25

Area Determination (4 hours)

- 10. forest stand map #1 25
- 11. forest stand map #2 25
- 12. forest stand map #3 30

Cruise Notes and Map (2 hours)

- 13. Pike Lake 30

Cutover Traverse (2 hours)

- 14. Ogden Township 30

Ski Trail Traverse (2 hours)

- 15. field notes and map 30

300

- 3. FINAL TEST (In-class assignment) 20%

100%

- | | | |
|---|----|---|
| 1 | 1 | <u>Introduction</u> |
| | | - purpose and objectives of course
- method of assessment |
| 2 | 1 | <u>Drafting Instruments and Media</u> |
| | | - drafting instruments, types, uses and care
- drafting media, types and application |
| 3 | 6 | <u>Freehand Lettering</u> |
| | | - importance of good lettering in forestry work
- lettering styles
- guidelines
- line work |
| 4 | 4 | <u>Mechanical Lettering</u> |
| | | - types, uses and care |
| 5 | 10 | <u>Maps</u> |
| | | - importance and types of maps used in forestry
- Ministry of Natural Resources index numbers
- National Topographic System
- Conventional Signs and Forest Cover legend
- map scales
- map components |
| 6 | 4 | <u>Area Determination</u> |
| | | - cross-section paper, dot grid line transect,
polar planimeter |
| 7 | 6 | <u>Field Traverse and Map Plotting</u> |

OBJECTIVES (COMPETENCY BASED):

Note: Numbers (eg: 1.1.1.) refer to Forest Technician Program - Competency Levels.

Communicate Effectively (1.0)

- understand and use correct signs and symbols related to mapping forest, water, land and cultural features (1.1.1)
- demonstrate skill in freehand and mechanical lettering (1.1.6)

Use and interpret basic forest maps eg: forest stand, base, topographic, Ontario Land Inventory and Canada Land Inventory maps (1.1.7).

Use related forestry equipment safely and efficiently (3.0).

- use basic drafting equipment such as pencil, pen, T-square, set-squares, scale (metric and Imperial), vernier, Ames lettering guide, mechanical lettering set
- demonstrate skill in line work, area determination (dot grid, line trans polar planimeter), and drafting a complete map