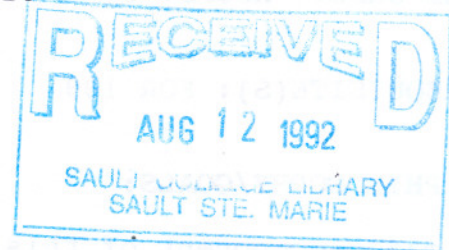


SAULT COLLEGE OF APPLIED ARTS & TECHNOLOGY

SAULT STE. MARIE, ONTARIO

COURSE OUTLINE

COURSE TITLE: FOREST MENSURATION III

CODE NO.: FOR 203-4 **SEMESTER:** III

PROGRAM: FORESTRY TECHNICIAN

AUTHOR: WARREN ROBERTSON

DATE: JULY 1992 **PREVIOUS OUTLINE DATED:** SEPT. 1989

APPROVED:


 DEAN, SCHOOL OF SCIENCES &
 NATURAL RESOURCES

DATE

July 16/92

FOREST MENSURATION III

FOR 203-4

COURSE NAME

COURSE NUMBER

TOTAL CREDIT HOURS: 64

PREREQUISITE(S): FOR 109

I. PHILOSOPHY/GOALS:

One major component of this course covers the theory and application of point sampling in forestry using a wedge prism, and includes the collection and compilation of field data by this process. The course also introduces sampling of wildlife populations and outlines some methods of measuring growth and volume. Another major component is called "Crest inventory design", which involves the preparation of a forest inventory plan, carrying out the field work, compiling the data and writing a report on a block of forested land.

II. STUDENT PERFORMANCE OBJECTIVES:

Upon successful completion of this course the student will be able to:

1. Understand the advantages and disadvantages of point-sampling as compared to other timber cruise methods.
2. Given a forest area, be able to plan and carry out a timber cruise using a wedge prism.
3. Be able to calculate sample area, percent sample, basal area/ha, volume/ha and total volume from a wedge prism cruise.
4. Be able to measure average stand age and height in any given forest stand.
5. Be able to compile data from a wedge prism cruise into stand and stock tables.
6. Be able to compile data from a wedge prism cruise using Normal Yield Tables.
7. Be able to calculate log and tree volumes using geometric formulae.
8. Be able to gather the appropriate data from a single tree or stand and calculate periodic increment, periodic annual increment, current annual increment and mean annual increment.

FOREST MENSURATION III

FOR 203-4

COURSE NAME

COURSE NUMBER

II. STUDENT PERFORMANCE OBJECTIVES - CONT'D

9. Given a block of forested land, be able to plan a complete forest inventory, locate the property, carry out the required fieldwork, compile the data and write a report with certain recommendations for forest management on the property.

III. TOPICS TO BE COVERED:

Use of the wedge prism in timber inventory; compilation of data from a wedge prism timber cruise using Normal Yield Tables and to produce stand and stock tables; calculating log and tree volumes; calculating growth of trees; strip census for wildlife populations; pellet group survey for deer populations; forest inventory design on a given block of forested land.

IV. EVALUATION METHODS:

Student assessment is based on:

	<u>Weight</u>
1. Theory Tests	40%
2. Projects and Assignments	
i. Point-Sample project	
ii. Forest Inventory Project	55%
iii. Lab Assignments	
3. Attendance & Performance	5%
	<u>100%</u>

A+ = 90-100% A = 80-89% B = 70-79% C = 60-69% R = <60%

FOREST MENSURATION III

FOR 203-4

COURSE NAME

COURSE NUMBER

VIII. SPECIAL NOTES:

Students with special needs (e.g. physical limitations, visual impairments, hearing impairments, learning disabilities) are encouraged to discuss required accommodations confidentially with the instructor.

Your instructor reserves the right to modify the course as he/she deems necessary to meet the needs of students.