

Revised  
Feb '87

SAULT COLLEGE OF APPLIED ARTS & TECHNOLOGY

SAULT STE. MARIE, ONTARIO

COURSE OUTLINE

Course Title: FOREST UTILIZATION (SOILS)

Code No.: FOR 204-3

Program: FORESTRY TECHNICIAN

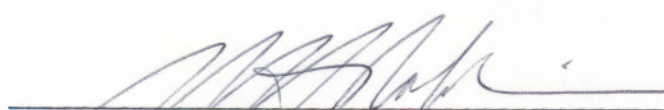
Semester: THREE

Date: SEPTEMBER, 1986

Author: ERWIN GOERTZ

New: X Revision:           

APPROVED:

  
Chairperson

08/15/86  
Date

FOREST UTILIZATION

FOR 204-3

Course Name

Course Code

COURSE DESCRIPTION

This course is a one-term lecture and laboratory course dealing with the chemical, physical and biological properties of soils, soil formation and development, the classification of soils and the inter-relationships between plant growth and soil. The following are major topics which will be dealt with in the course:

<u>TOPIC</u>	<u>DESCRIPTION</u>	<u>NO. OF PERIODS</u>
1.	<u>GLACIAL LANDFORMS</u> - description, identification.	2
2.	<u>PHYSIOGRAPHIC SITE CLASSIFICATION</u> - observable soil characteristics including texture, colour, structure, moisture region	3
3.	<u>INTRODUCTION TO SOIL</u> - what it is; the soil profile, morphological features of soils which are observable in the field; illustrations of contrasting soils; an introductory discussion of the factors affecting soil development.	1
4.	<u>SOIL FORMATION</u> - study of factors affecting soil development.	1
5.	<u>SOIL BIOLOGY</u> - soil organisms (flora & fauna), their distribution and measurement, function in the soil and effect on soil properties.	1



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<u>TOPIC</u>	<u>DESCRIPTION</u>	<u>NO. OF PERIODS</u>
6.	<u>SOIL ORGANIC MATTER</u> - its origin and composition.	1
7.	<u>SOIL WATER</u> - the energy relationships, retention and movement in soils, measurement of soil water, infiltration capacities and permeabilities of soils.	1
8.	<u>SOIL FERTILITY</u> - essential nutrients, form, availability and movement - diagnostic techniques.	1
9.	<u>SOIL CHEMISTRY</u> - cation exchange capacity, pH and buffer capacity.	1
10.	<u>SOIL CLASSIFICATION</u> - the history of soil classification, major classifications in use.	1
11.	<u>SOILS AND FORESTRY</u> - soil management in forestry and the effect of some forest management practices on soil.	3

TEXT:

Armson, K.A., Forest Soils; Properties and Processes, 1977, University of Toronto Press.

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METHOD OF ASSESSMENT (GRADING):

The course grade will be calculated as follows:

	<u>Percent of final grade</u>
Laboratory course test	40%
Essays (2)	20%
Lecture test	40%
	<u>100%</u>

A = Outstanding achievement	- 75% plus
B = Consistently above average	- 65%
C = Acceptable achievement	- 55%
R = Repeat the course	