

SAULT COLLEGE OF APPLIED ARTS & TECHNOLOGY  
SAULT STE. MARIE, ONTARIO

COURSE OUTLINE

Course Title: FOREST BIOLOGY  
Code No.: BIO 111-3  
Program: PULP & PAPER ENGINEERING TECHNOLOGY  
Semester: 1  
Date: AUGUST 26, 1986  
Author: A. SUGDEN

New: \_\_\_\_\_ Revision: X

APPROVED:  Aug 27/86  
Chairperson Date

CALENDAR DESCRIPTION

FOREST BIOLOGY

Course Name

BIO 111-3

Course Number

**PHILOSOPHY/GOALS:**

Forest Biology introduces the student to underlying biological and ecological concepts that have relevance to the Pulp & Paper Engineering Technology program. The position of the forest in the overall ecological system and its connection with the pulp and paper industry are examined. Plant cells, tissues and organs are studied and the nature of tree growth is examined. The importance of the Forest Regions of Canada and their indigenous species are stressed. A variety of skills are learned. These include basic use of the microscope, preparation of wet mounts, observation and sketching of specimens, basic wood identification and preparation of laboratory reports.

**METHOD OF ASSESSMENT (GRADING METHOD):**

The student's performance in the course will be based on his/her performance on seven (7) laboratory assignments worth a total of 100 marks and on three (3) tests, each worth 50 marks. Completion of ALL laboratory assignments is a requirement of the course.

Letter grades will be assigned (based on the aggregate mark) as follows:

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

Students having a final mark of at least 50% will be permitted to rewrite the course.

**TEXTBOOK(S):**

Core, H.A., Cote, W.A. & Day, A.C., Wood Structure and Identification, 2nd. edition, University Press, Syracuse, N.Y., 1979.

Arms, K. & Camp, P.S., Biology, 2nd. edition, Saunders, Toronto, 1982



COURSE TOPICS:

<u>WEEK</u>	<u>TOPIC</u>
1.	Introduction to course, discussion of course outline. Introduction to Forest Biology and outline Lab.1.
2.	Forest ecology field exercise: start lab work.
3.	Forest biology and ecological systems Complete lab. 1
4.	Forest biology and ecological systems Lab. 2
5.	Plant cells, tissues and organs Lab. 3
6.	Growth and development of woody plants
7.	Forest Regions of Canada, indigenous tree species Lab. 4
8.	Pulpwoods and cell components Lab. 5 (start)
9.	Woody plant cells, hardwoods and softwoods Lab 5 (complete)
10.	Aquatic biology, cells and organisms, Pollution effects Lab. 6
11.	Relationship of wood cell properties to pulp and paper
12.	Wood identification Lab 7 (start)
13.	Relationship of pulp and paper industry on forest biology Lab. 7 (complete)
14.	Review of course Final test.

NOTE: A listing of laboratory exercises will be provided at the beginning of the semester. Lab outlines will be made available prior to each lab period.

REFERENCES:

An appropriate list of reference books will be issued early in the semester.