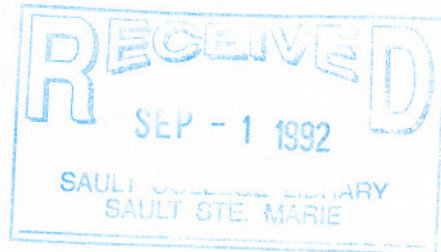


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SAULT COLLEGE OF APPLIED ARTS & TECHNOLOGY  
SAULT STE. MARIE, ONTARIO

COURSE OUTLINE



COURSE TITLE: FOREST BIOLOGY

CODE NO.: BIO 111-3

SEMESTER: ONE

PROGRAM: PULP & PAPER

AUTHORS: G. STONE

DATE: SEPTEMBER 1992

PREVIOUS OUTLINE DATED: JULY 1991

APPROVED: [Signature]  
DEAN

[Signature]  
DATE





FOREST BIOLOGY

BIO 111-3

COURSE NAME

CODE NUMBER

TOTAL CREDIT HOURS: 48

PREREQUISITES: NONE

**I. 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. A variety of skills are learned including: basic use of the microscope, preparation of wet mounts, observation and sketching of specimens, basic wood identification and preparation of laboratory reports.

**II. STUDENT PERFORMANCE OBJECTIVES:**

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

1. Demonstrate the laboratory skills: microscope operation, specimen preparation, and documentation.
2. Utilize observational skills and apply the scientific method.
3. Evaluate the relationship between the forest and the ecological system.
4. Identify and describe the macro and micro components of wood.

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III. TOPICS TO BE COVERED:

<u>WEEK</u>	<u>TOPIC</u>
1	Introductions and Expectations an introduction to Science, Biology & Ecology Scientific Nomenclature
2	Forestry & Aquatic Ecosystems
3	Lab #1: The Forest
4	Photosynthesis Forest Production
5	Nutrient Cycling Populations
6	Test #1
7	Lab #2: The Microscope and Plant Cells
8	Woody Plant Structure Lab #3: Woody Plant External Features
9	Growth & Development of Woody Plants: Lecture
10	Test #2 Lab #4: Comparison of Hardwoods and Softwoods
11	Lab #4 - continued
12	Wood Identification Lab #5: Wood Identification
13	Lab #5 Contitued
14	Wood and Pulp
15	Pulp & Paper & Sustainable Development
16	Review/Overlap Week
17	Test #3 Lab Test



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IV. EVALUATION METHODS:

The grading system is as follows:

A+ = 90-100%      A = 80-90%      B = 70-80%      C = 60-70%

R = less than 60%, course must be repeated

LABORATORY ASSIGNMENTS:

LAB #1	-----	/20
LAB #2	-----	/20
LAB #3	-----	/20
LAB #4	-----	/20
LAB #5	-----	/20
LAB TEST	-----	/20

TOTAL OUT OF \_\_\_\_\_ /120

IN CLASS TESTS:

TEST #1	-----	/40
MIDTERM TEST #2	-----	/40
FINAL TEST #3	-----	/40

TOTAL OUT OF \_\_\_\_\_ /120

FINAL GRADE:                    LAB \_\_\_\_\_ /120 = 50%

TESTS \_\_\_\_\_ /120 = 50%

V. REQUIRED STUDENT RESOURCES:

BIO111 Mini-Text (in Bookstore)

Course notes in Wood and Fibre Morphology for BIO111 (in bookstore).

The following are recommended; not required.

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, 3rd Edition, Saunders, Toronto, 1987.

VI. ADDITIONAL RESOURCE MATERIALS AVAILABLE IN THE COLLEGE LIBRARY BOOK SECTION:

Titles will be provided during the semester.

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VII. 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.

LAB #1	150
LAB #2	150
LAB #3	150
LAB #4	150
LAB #5	150
LAB TEST	150
TOTAL OUT OF	1120
TEST #1	140
MIDTERM TEST #2	140
FINAL TEST #3	140
TOTAL OUT OF	1120
LAB	1120 = 50%
TESTS	1120 = 50%

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The following are recommended; not required.

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