

I. COURSE DESCRIPTION:

This course provides the student with a practical understanding of the functioning of plants and processes of growth in general with special consideration for woody plants. As well, life cycles of particular groups of plants are examined. The concepts presented in this course will have direct application in a number of courses in the Forest Technician Program.

II. LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:

Upon successful completion of this course, the student will demonstrate the ability to:

1. Describe metabolic processes in plants.

Potential Elements of the Performance:

- Describe the processes involved in photosynthesis
- Describe the processes involved in respiration
- Describe the processes involved in transpiration
- Describe the processes involved in water and nutrient uptake

2. Describe plant growth process.

Potential Elements of the Performance:

- Describe the various meristematic regions in plant including vascular cambium, cork cambium and apical meristems
- Describe the roles of auxins and giberellins in plant growth
- Distinguish between primary and secondary growth
- Describe the process of annual growth in woody plants

3. Describe reproductive processes in plants

Potential Elements of the Performance:

- differentiate between sexual and asexual reproduction
- list and give examples of 6 different vegetative methods of reproduction
- distinguish between haploid and diploid conditions, gametophyte and sporophyte generations, spores and seeds

4. Describe life cycles of various plant groups

Potential Elements of the Performance:

- distinguish between different stages in the life cycles of ferns, mosses, club mosses, conifers and flowering plants
- draw from microscope slides specified life stages

III. TOPICS:

1. Metabolic Processes
2. Plant Growth
3. Plant Reproduction
4. Plant Life Cycles

IV. REQUIRED RESOURCES/TEXTS/MATERIALS:

Stern, K.A. Introductory Plant Biology. Wm. C. Brown Publishers. 537pp.
Zuchlinski, J.A. Forest Plant Biology II – Lab Manual

V. EVALUATION PROCESS/GRADING SYSTEM:

Mid-term Test	10%
Final Test	30%
<u>Lab Assignments</u>	<u>60%</u>
TOTAL	100%

The value of lab assignments will be reduced at a rate of 10% per day for late submissions for a period of 5 days after the due date. After 5 days the lab assignments will have a value of zero. All lab assignments must be submitted regardless of lateness to pass the course.

Absence from a test will result in a zero with no opportunity for a make-up unless pre-arranged with the instructor and only under extreme circumstances as determined by the instructor.

No rewrites will be made available at semester end.

The following semester grades will be assigned to students in postsecondary courses:

<u>Grade</u>	<u>Definition</u>	<u>Grade Point Equivalent</u>
A+	90 - 100%	4.00
A	80 - 89%	3.75
B	70 - 79%	3.00
C	60 - 69%	2.00
R (Repeat)	59% or below	0.00
CR (Credit)	Credit for diploma requirements has been awarded.	
S	Satisfactory achievement in field placement or non-graded subject areas.	
U	Unsatisfactory achievement in field placement or non-graded subject areas.	
X	A temporary grade. This is used in limited situations with extenuating	

VII. PRIOR LEARNING ASSESSMENT:

Students who wish to apply for advanced credit in the course should consult the professor. Credit for prior learning will be given upon successful completion of a challenge exam or portfolio.

VIII. DIRECT CREDIT TRANSFERS:

Students who wish to apply for direct credit transfer (advanced standing) should obtain a direct credit transfer form from the Dean's secretary. Students will be required to provide a transcript and course outline related to the course in question.