SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY

SAULT STE. MARIE, ONTARIO

SAULT COLLEGE

COURSE OUTLINE

COURSE TITLE:	Forest Pathology		
CODE NO. :	NRT 206	**SEMESTER:**	IV
PROGRAM:	Forestry Technician		
AUTHOR:	Bob Currell		

DATE:	Jan. 2011	**PREVIOUS OUTLINE DATED:**	Jan. 2010
APPROVED:		"B.Punch"	
		_____ CHAIR	_____ DATE
TOTAL CREDITS:	2		
PREREQUISITE(S):	None		
HOURS/WEEK:	2 hrs/week x 16 weeks		

I.   COURSE DESCRIPTION:

This course provides the student with an understanding of disorders of forest trees. In the course, the types of stresses, both biotic and abiotic, which can cause forests and trees to become unhealthy will be introduced, their life cycles described and control measures suggested. Emphasis will be placed on identifying and describing the most commonly occurring Ontario infectious forest pathogens. The ecological and economic impacts of introduced exotic tree diseases will be introduced.

II.   LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:

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

1. Describe the scope and importance of forest pathology

    Potential Elements of the Performance:

    - define forest pathology and describe why it is important to study
    - list the types of pathological stresses trees may experience
    - describe the ecological and economic impact of pathological damage

    This Learning outcome will constitute 10% of the course's mark.

2. List and describe abiotic stress factors affecting forests

    Potential Elements of the Performance:

    - list abiotic factors which affect forests
    - describe the damage and impacts of abiotic stresses on forests
    - suggest management techniques to minimize abiotic stress impacts

    This learning outcome will constitute 10% of the course's mark

3.   Identify important tree diseases

Potential Elements of the Performance:

- identify tree pathogens from pictures
- identify tree diseases from field or lab specimens
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This learning outcome will constitute 10% of the course's mark

4.   Describe important forest tree diseases

Potential Elements of the Performance

- list the causal agents of tree diseases
- describe 6 categories or groups of tree diseases
- describe the life cycle, damage caused, and significance of important Ontario tree diseases
- suggest management to minimize disease impacts
- prepare drawings of the reproductive structures of fungi

This learning outcome will constitute 40% of the course's mark

5.   Present technical information describing a specific tree disease, using current technology

Potential Elements of the Performance:

- prepare group presentations describing a tree disease
- deliver ten to fifteen minute oral presentations supported by audio visual resources

This learning outcome will constitute 20% of the course's mark

6.   Discuss current issues in the field of forest pathology

Potential Elements of the Performance:

- explain the particular stresses and pathogens impacting urban trees
- describe several types of exotic tree diseases which are affecting Ontario's forests

This learning outcome will constitute 10% of the course's mark

III.   TOPICS:

1.   An introduction to Ontario forest pathology
2.   Abiotic forest stresses
3.   Symptomology and an introduction to fungal pylogeny
4.   Classes of tree diseases
   -    Diseases of needles and leaves
   -    Stem decay of conifers
   -    Stem decay of hardwoods
   -    Wilts
   -    Root and butt rot
   -    Rusts
5.   Urban pathology
6.   Exotic forest pathogens

IV.   REQUIRED RESOURCES/TEXTS/MATERIALS:

Field Guide to Tree Diseases of Ontario; Davis and Meyer

Note: This publication is available on-line:

http://imfc.cfl.scf.rncan.gc.ca/maladie-disease/index-eng.asp

Other internet resources will be provided during the course.

A hand lens would be useful in some labs.

V.   EVALUATION PROCESS/GRADING SYSTEM:

Tests (2)	-	40%
Quizzes:		
following presentations	-	20%
Presentations	-	20%
Identification Test(s)	-	10%
Lab assignments	-	10%

The following semester grades will be assigned to students:

Grade	Definition	Grade Point Equivalent
A+	90 – 100%	4.00
A	80 – 89%	
B	70 - 79%	3.00
C	60 - 69%	2.00
D	50 – 59%	1.00
F (Fail)	49% and below	0.00

CR (Credit)	Credit for diploma requirements has been awarded.
S	Satisfactory achievement in field /clinical placement or non-graded subject area.
U	Unsatisfactory achievement in field/clinical placement or non-graded subject area.
X	A temporary grade limited to situations with extenuating circumstances giving a student additional time to complete the requirements for a course.
NR	Grade not reported to Registrar's office.
W	Student has withdrawn from the course without academic penalty.

VI. SPECIAL NOTES:

Attendance:
Sault College is committed to student success. There is a direct correlation between academic performance and class attendance; therefore, for the benefit of all its constituents, all students are encouraged to attend all of their scheduled learning and evaluation sessions. This implies arriving on time and remaining for the duration of the scheduled session.

Assignments are due at the start of class on the due date. Late assignments will receive a deduction of 30%. Students who are absent for a quiz or test will receive 0 for that evaluation.

VII. COURSE OUTLINE ADDENDUM:

The provisions contained in the addendum located on the portal form part of this course outline.