

*Revised  
Dec '85*

CALENDAR DESCRIPTION

SAULT COLLEGE OF APPLIED ARTS & TECHNOLOGY

SAULT STE. MARIE, ONTARIO

COURSE OUTLINE

Course Title: FOREST PATHOLOGY  
Code No.: FOR 114-3  
Program: Forestry  
Semester: Four  
Date: June, 1983  
Author: Gordon Stone

New: \_\_\_\_\_ Revision: x

APPROVED:

*Gordon Stone*

Chairperson

Date



FOREST PATHOLOGY OBJECTIVES

To have developed knowledge of:

1. The impact of forest diseases on the practice of forest management by using statistics on wood loss due to forest diseases and results of current research programs.
2. The resources available in the study of forest pathology - eg: literature resource persons, research facilities.
3. The important forest diseases of Canada with major emphasis on the economically important forest tree species of Ontario.
4. The various methods of control of forest diseases - Exclusion, Eradication, Protection, Resistance.
5. Recent advances in forest pathology research by visiting the Great Lakes Research Centre and attending a presentation by research officers.

To have developed understanding of:

1. The classification of fungi by demonstrating the differences between life cycles of Phycomycetes, Deuteromycetes, Ascomycetes and Basidiomycetes.
2. The disease process, its effects on the host and host reaction (susceptible, resistant, immune)
3. The succession of organisms on a host from a healthy state to decomposition.
4. The relationship between insects and disease organisms eg: Dutch Elm Disease and Beech Bark Disease
5. The concept of stress factors
6. The role of a forest technician in relation to the Forest Insect and Disease Survey.

FOREST PATHOLOGY OBJECTIVES CON'T

To have developed skills in:

1. Recognizing signs and symptoms of forest diseases through the use of specimens, slides and field trips.
2. Distinguishing between infectious and non-infectious diseases.
3. Distinguishing between insect, fire and disease damage.
4. Collecting, drying and describing fungus diseases - by submitting a collection.
5. Designing dichotomous keys to separate specimens of forest diseases.
6. Identifying several fungus diseases to scientific and common name.
7. Researching and reporting on different aspects of forest diseases - assignments and technical reports.

TOPIC NO.	PERIODS	TOPIC DESCRIPTION
1	2	Introduction - outline evaluation, grading, importance, lab manual, assignments, technical report, fungus collection.
2	1	Infectious Diseases - fungi, bacteria, virus, parasitic seed plant, mycoplasma
3	1	Symptomatology - signs, symptoms, slides, specimens, drawings and descriptions.
4	4	Non-Infectious Diseases - slides and specimens, key construction, design a key to separate
5	2	Classification and Reproduction - description and recognition, signs and symptoms labelled drawings, slides, life cycles, design a key to separate four classes of fungi
6	1	Succession of Organisms - description, examples, assignment
7	1	Control of Forest Diseases - exclusion, eradication, protection, resistance, assignment
8	2	Cankers - description, recognition, key, drawings, slides, specimens, Gremeniella, Hypoxylon and Strumella, Nectria, Eutypella cankers
9	2	Decay - description, recognition, key, drawings, slides, specimens, incipient, intermediate and advanced decay
10	2	Rootrots - signs, symptoms, description, drawings, life cycle, spread, importance, recent research, Armillaria mellea, Fomes anosus, Polyporus tomentosus

TOPIC NO.	PERIODS	TOPIC DESCRIPTION
11	1	Seedling Diseases - dumping off, postemergence, pre-emergence, Pyth and Phytophthora sp.
12	1	Dutch Elm Disease <span style="float: right;">ium</span> - fungus insect relationship, signs, symptoms, life cycles, control, recent research
13	1	Beech Bark Disease - fungus/insect relationship - fungus/parasite relationship - insect/predator relationship
14	2	Blister Rusts - specimens, slides, life cycle, keys, description, recognition, western rusts and white pine blister rust
15	2	Impact of Forest Tree Diseases on Forest Management in the Boreal Region
16	2	Review
17	2	Field Trip
18	2	Tests - slide test and specimen test