Navised Dec 125

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

in

APPROVED:

Chairperson

Date

Corest Pathology Lan Manual, Campus Bookstore.

CALENDAR DESCRIPTION

FOREST PATHOLOGY Course Name FOR 114-3 Course Number

of total mark

25% 35% 20% 20% 100%

PHILOSOPHY/GOALS:

The purpose of this course is to familiarize the student with forest tree diseases; their identification, life history, control and impact on the practice of forest management.

METHOD OF ASSESSMENT (GRADING METHOD):

Evaluation:	Technical Report
	Assignments
	Slide test
	Specimen test

A - 90% exceptional
 B - 75% consistently outstanding
 C - 60% basic understanding of course material

TEXTBOOK(S):

Grading:

Tatter, T.A., <u>Diseases of Shade Trees</u>, Academic Press. Forest Pathology Lab Manual, Campus Bookstore.

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FOREST PATHOLOGY OBJECTIVES

To have developed knowledge of:

- 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.
- The resources available in the study of forst 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:

- 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 (susceptable, 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
- 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.
- Researching and reporting on different aspects of forest diseases

 assignments and technical reports.

 The classification of fungi by demonstrating the differences between life cycles of Phycomycetes, Deuteromycetes, Ascomycetes and Basidiomycetes.

- The disease process, its effects on the host and host reaction (susceptable, resistant, immune)
 - The succession of organisms on a host from a hebitny state to decomposition.
- The relationship between insects and disease organisms eg: Dutch Elm Disease and Beech Bark Disease
 - 5. The concept of stress factors
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TOPIC NO.	PERIODS	TOPIC DESCRIPTION
(9 , sone <mark>1</mark> eme-	ases , postemenser ⁹ e, pri thore sp. ease	<pre>Introduction - outline evaluation, grading, importance, lab manual, assignments, technical report, fungus collection.</pre>
2	ot relationship, sig . control, recent r sease	Infectious Diseases - fungi, bacteria, virus, parasitic seed plant, mycoplasma
3	et relationship site relationship ator relationship	Symptomatology - signs, symptoms, slides, specimens, drawings and descriptions.
	sitdes, itte Aycle. , recognicion, west	Non-Infectious Diseases - slides and specimens, key construction, design a key to separate
5	est Tree Ofs.2 es on ne Goreel Region	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	and spectmen Last	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

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Ţ	OPIC NO.	PERIODS	TOPIC DESCRIPTION
	11	l tion, grading, l	Seedling Diseases - dumping off, postemergence, pre-emergence, Pyth and Phytophthora sp.
	12	1	Dutch Elm Disease ium - fungus insect relationship, signs, symptoms, life cycles, control, recent research
	13 werd arren	1 s, siides, speci	Beech Bark Disease - fungus/insect relationship - fungus/parasite relationship - insect/predator relationship
	14 not tound	2 ando vez anemia	Blister Rusts - specimens, slides, life cycle, keys, description, recognition, western rusts and white pine blister rust
	igns and s	2	Impact of Forest Tree Diseases on Forest Management in the Boreal Region
	16	2	Review
	17	2	Field Trip
	18 . no 13	2 Diseases Mication, protec	Tests - slide test and specimen test

signs, symptoms, description, drawings, life
 cycle, spread, importance, recent research,
 Armiliaria mellea, Fomes anosus, Polyporus

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