

FOREST RENEWAL

FOR241-4

COURSE NAME-----
CODE NO.**I. PHILOSOPHY/GOALS:**

This course is largely a companion course to Silviculture FOR200. It deals primarily with the regeneration and management of Ontario's forests. Emphasis is placed on planning and carrying out forest renewal operations in a safe and ecologically responsible manner. Students are also given the background required to understand the biological relationships found in landscapes where trees make up a dominant component of the ecosystem. Sustainability of the forest resource both biologically, socially and economically is stressed throughout. Students will be given instruction leading to the Ministry of Environment, Forestry Exterminators License exam through Ridgetown College and the University of Guelph.

II. STUDENT PERFORMANCE OBJECTIVES (OUTCOMES):**a) Learning Outcomes**

Upon successful completion of this course the student will:

- 1) Be able to participate effectively in carrying out silvicultural operations.
- 2) Be able to plan silvicultural operations.
- 3) Be competent to train unskilled silvicultural work crews.
- 4) Be able to identify the ecological and economic significance of applying a variety of silvicultural options.
- 5) Be able to safely, effectively and in an environmentally responsible manner apply pesticides in the forest.

b) Learning Outcomes and Elements of the Performance- Upon successful completion of this course the student will demonstrate the ability to:

1. Forecast seed crops, collect and store seeds conduct seeding operations and determine when seeding can be a useful silvicultural method of regeneration -

Potential Elements of the Performance:

- collect tree seed
- forecast tree seed crops
- identify and manage pests of cones and seeds
- identify commercially important tree seed by species
- list seed germination requirements for selected tree species
- compare characteristics of good and poor seed beds
- describe aerial and ground seeding methods

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

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2. Design and plan a forest tending operation -

Potential Elements of the Performance:

- plan a juvenile spacing operation
- plan a pre-commercial and commercial thinning operation
- list silvics of major competitor species in Ontario's forests
- describe the important characteristics of herbicides registered for use in Canadian forests
- describe aerial and ground herbicide application equipment

This learning outcome will constitute 15% of this course's grade.

3. Apply Pesticides in the Forest In a Safe , Effective and Environmentally acceptable manner and in accordance with all relevant legislation -

Potential Elements of the Performance:

- Identify economically important forest insect pests
- identify economically important forest plant pests
- identify economically important fungal and animal forest pests
- write prescriptions for pest management activities in the forest
- understand clearly the MOE Pesticides Act and Reg. 914
- List characteristics and properties of pesticides registered for forest use in Canada.
- Understand the significance of the Pest Control Products Act in Forest Pest Management
- demonstrate ground pesticide application techniques used in the forest
- apply the principles of integrated forest pest management in decision making processes

This learning outcome will constitute 35% of the course's grade.

4. Demonstrate the ability to successfully conduct and administrate an operational tree planting operation -

Potential Elements of the Performance:

- Select planting stock
- develop contracts for the production of planting stock and tree planting
- integrate planting with other forest regeneration strategies
- match forest site conditions to planting practices.
- demonstrate the proper care and use of planting equipment
- demonstrate the proper care and handling of planting stock

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

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5. List and define principles and practices of tree improvement -

Potential Elements of the Performance:

- identify seed zones in Ontario and the significance of provenance
- identify plus trees and collect scions
- graft using the side veneer grafting technique
- list the purpose for and the characteristics of seed orchards and family tests

This learning outcome constitutes 10% of the course's grade

III. EVALUATION METHODS:TESTS = 55% → Term Test #1 = 35%; Test Term #2 = 20%

LABS and LAB TESTS	<u>45%</u>
Lab 1-2 Insect Pests	5%
Lab 1-3 Pj Cones and Seeds	5%
Lab 1-4,1-5 Seed ID Test	5%
Lab 1-6 Direct Seeding	10%
Lab 2-1 Crop Planning	5%
Lab 4-1 Tree Planting	5%
Tree Crop	10%

Grading:

A+ = 90 - 100% ; A = 80-89% ; B = 70 - 79% ; C= 60-69% ; R=59%or less

Late assignments may not be accepted.

Late assignments accepted will be marked down.

80% CLASS Attendance is mandatory to achieve a C grade or higher.

The Ridgetown College Forestry Exterminators Licence Exam will be given at Sault College before May 1, 1999. This exam **WILL NOT** be part of the grade assigned to students in this course and will be optional.

IV. PRIOR LEARNING ASSESSMENT:

Please contact the Prior Learning Assessment Office (E2203) for further information.

V. REQUIRED STUDENT RESOURCES:

- Forest Renewal Study Guide and Lab Manual
- Ridgetown College Forestry Exterminators Review and Study Materials

VI. ADDITIONAL RESOURCE MATERIAL AVAILABLE IN THE COLLEGE LIBRARY:Periodical Section

Silviculture Magazine
Forestry Chronicle

Audiovisual Section

Distance Educational Silviculture Videotape 2

Turgeon, J.J. and DeGroot P. 1994. Management of Insect Pests of Cones in Seed Orchards in Eastern Canada. OMNR/Forestry Canada, Sault Ste. Marie, Ontario. Queen's Printer 98 p.

VII. SPECIAL NOTES:

Students in FOR241 will be trained to prepare them to write the Ridgetown College Ontario Pesticide Certification Exam for Forestry. Those students who wish to write this exam and are successful are eligible to purchase the Ministry of environment Forestry Exterminators Licence. Students will be required to pay \$150.00 to be eligible to write the Ridgetown test. This includes text books.

Special Needs

If you are a student with special needs (e.g. Physical limitations, visual impairments, hearing impairments, learning disabilities), you are encouraged to discuss required accommodations with the instructor and/or contact the Special Needs Office, Room E1204, Ext. 493, 717 or 491 so that support services can be arranged for you.

Plagiarism

Students should refer to the definition of "academic dishonesty" in the "Statement of Students Rights and Responsibilities."

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Students who engage in “academic dishonesty” will receive an automatic failure for that submission and/or such other penalty, up to and including expulsion from the course, as may be decided by the professor.

In order to protect students from inadvertent plagiarism, to protect the copyright of the material referenced and to credit the author of the material, it is the policy of the department to employ a documentation format for referencing source material.

Advanced Standing

Students who have completed an equivalent post-secondary course should bring relevant documents to the Coordinator, Natural Resources Programs.

Retention of Course Outlines

It is the responsibility of the student to retain all course outlines for possible future use in gaining advanced standing at other post-secondary institutions.

Substitute course information is available at the Registrar’s Office.