VANCOUVER ISLAND UNIVERSITY
SCIENCE & TECHNOLOGY
FORESTRY

Forest Resources Technology Department

SILVICULTURE II

FORESTRY 233

Course Outline

Term:	Spring
Lectures/lab:	TBA
Instructor:	TBA

CALENDAR DESCRIPTION

Forestry 233 will follow the Forestry 231 format and evaluation schedule. The material covered in FRST 233, however, will focus more on stand establishment and manipulation techniques and will include reforestation standards; introductory forest genetics; cone, seed, and seedling physiology, seed production and handling; artificial and natural reforestation methods, and intermediate treatments such as thinning, pruning, vegetation management, forest fertilization, and site preparation. Silviculture plans, record keeping systems and other administrative procedures will also be discussed.

SCOPE AND CREDIT

This course receives three credits for the Forest Resources Technology program (3:0:4) and/or the Forestry undergraduate transfer program.
Prerequisite: FRST 151,152, 131, 132 and 231

COURSE FORMAT

This course is designed for students in the second year of the Forest Resources Technology program and the Forestry undergraduate transfer program. For about one half of the total course hours students will be in the classroom listening and participating. The other half of the course time will be in the field or lab. Total course hours per week are seven hours.

LEARNING OUTCOMES

Upon successful completion of the course, the student will:

1. Apply principles of tree species selection, including seedling physiology and physiological requirements, to develop natural and artificial forest regeneration prescriptions.
2. Plan an artificial reforestation program that includes stock type selection; seed and seedling ordering; receiving, handling, and planting of seedlings; and contract administration.
3. Explain basic concepts of applied forest genetics and tree improvement and their role in British Columbia forest management.
4. Discuss applications of commonly used intermediate treatments, including commercial and pre-commercial thinning, pruning, forest fertilization, and vegetation management.
5. Apply principles of pre and post-harvest site preparation to develop appropriate prescriptions.
6. Apply silviculture planning techniques and record keeping systems commonly used in British Columbia to forest estate management.

TEXTS & SUPPLIES

Handouts are given during the course.

TERM PROJECT

Students will be required to produce a “Poster” or story board on a specific silvicultural subject of their choice related to forest genetics, tree improvement or some other reforestation technique or process, or intermediate treatments practiced in BC.

Students will require approval of their choice of project topic prior to developing the poster.

Approval of topic	TBA
Approval of story line	TBA
Final submission	TBA

Failing to meet the above date deadlines will result in one letter grade reduction for each date deadline missed.

The poster will be marked on format, presentation, content, and use of English as outlined in the marking scheme. ***The project will be an individual effort. Further details to follow.***

EXAMS

There will be two mid-term exams and one final.

EVALUATION

Grade Breakout:

Percentage (%)	Letter Grade	Grade Point
90-100	A+	4.33
85-89	A	4.00
80-84	A-	3.67
76-79	B+	3.33
72-75	B	3.00
68-71	B-	2.67
64-67	C+	2.33
60-63	C	2.00
55-59	C-	1.67
50-54	D	1.00
0-49	F	0.00

The following evaluation will be used in calculating the Final grade for this course:

- First mid-term 15 %
- Second mid-term test 15 %
- Final exam 25 %
- Labs 20 %
- Term Project 15 %
- Professionalism 10%

Grading Policies:

Missing Tests

Students missing any exam, test or quiz, and unable to provide legitimate reason (illness or personal situation of a serious nature) for their absence, will be credited with zero for the missed exam or quiz. Normally, students will not be permitted to write exams or quizzes before or after the test has been given to the class.

Assignment Submission Standards:

All lab assignments, will include a simple cover/title page stating the course name, assignment title, the student's name and the name of the course instructor. The assignment, unless otherwise specified, will be type written with double spacing and under no circumstances will anything be written on the back of any page. Only material on the front of the page(s) will be graded.

All lab assignment submissions must have a Title page, Table of Contents, an introduction detailing objectives, a methodology section, and a results section; all non-original information, images, and data must be properly cited and referenced. Forty percent of each lab mark will be assigned to format, presentation, and proper use of English.

Students must attend all field portions of lab assignments; if a student fails to attend the field portion of a lab, he or she will not receive a mark for the lab.

IMPORTANT DATES:

January	TLA Conference no classes
January	Poster topic due for approval
February	**Midterm Test #1**
February	Family day holiday, University closed
February	Poster story line due for approval
February	Spring reading week – no classes
March	**Midterm Test #2**
March	Poster project due
March	Field trip to PFC
April	Last Silviculture II class
April	First day of final exams
April	Easter break, University closed
April	Last day of final exams

SILVICULTURE II
FOREST REGENERATION AND STAND TENDING

Module	Topic
1	Introduction to the course – field tour. Introduction to the provincial legislation controlling forest regeneration.
2	The reforestation plan as a management tool. Reforestation & Stocking Standards. Tree species selection and setting stocking standard.
3	An introduction to forest genetics and its role in forest management. BC's forest genetics program including parent selection, tree breeding, provenance and progeny trails. Seed registration and use. Seed transfer guidelines. Cone & seed morphology & physiology. Cone collection, handling, processing & storage.
4	Reforestation assessments. Seedling physiological requirements. Seed lot/vegetative lot selection.
5	Stock types options and selection. Forest nursery operations and stock ordering.
6	Planting program management & contract administration.
7	Introduction to site preparation.
8	Vegetation management.
9	Pruning and forest fertilization.
10	Thinning and density management.
11	Record keeping and reporting procedures.