Grande Prairie Regional College
Department of Science & Technology
Bachelor of Applied Forest Resource Management
Course Outline
Fall 2000

Course:	*Silviculture I* (FO 3130) 3(3-0-3)
Classroom:	A308
Lab:	B305
Instructor:	Dr. Weixing Tan
Office:	E307
Phone:	539-2793
E-mail:	tan@gprc.ab.ca
Transfer Status:	Athabasca University SCIE 2xx; Augustana University College BIO 3xx
Prerequisites:	FO 2020
Time of Lectures:	Monday and Wednesday 11:30 - 13:50
Time of Lab:	Tuesday 14:30 - 17:20

Calender Description

Silviculture is the science and art of growing and tending forest crops. As the first part of the silviculture, this course includes: silvics and species selection, introduction to silvicultural systems, pre-harvest ecological assessment, harvesting systems for reforestation, forest regeneration principles and techniques, and container and bareroot nursery practices.

Textbook (any one of the following two)

1. Smith DM et al. 1997. **The Practice of Silviculture: Applied Forest Ecology.** John Wiley & Sons.
2. Lavender DP et al. 1995. **Regenerating British Columbia's Forests.** UBC Press.

Major References

1) Anonymous.1996. **Forest site interpretation and silvicultural prescription guide for Alberta.** Alberta Environmental Protection. (reserved)
2) Anonymous. 1996. **Pre-harvest ecological assessment handbook.** Alberta Environmental Protection.

3) **Field Guide to Ecosites of Alberta**. UBC Press. (series of 4 publications) (reserved)
4) Anonymous. 1995. **Establishment to free growing guidebook, Prince George Forest Region (Forest practice code of British Columbia)**. BC Environment

Scientific Journals and Periodicals (available in the Library)

Canadian Journal of Forest Research, Forestry Chronicle, Northern Journal of Applied Forestry, Canadian Silviculture Magazine

Useful Web Sites

www.for.gov.ca, www.canadian-forests.com, www.fs.fed.us; www.forestnet.com, www.foresters.org, www.forestindustry.com,

Course Content

The following outlines major topics to be addressed in this course and the suggested readings in two major books:

Topic	Readings (chapters)	
	Smith 1997	Lavender et al. 1995
Introduction – definition, purposes, its role in forestry, philosophy, scope and terminology, review of physiological & ecological principles	1	1 to 6
Stand structure and dynamics	2	5 & 6
Planning		7
Pre-, mid- & post-harvest assessment & ecosite classification in Alberta, site limitations/opportunities	part of 9	8
Harvesting as a tool of silviculture (harvesting or not?)	References will be provided	
Introduction & selection of silvicultural systems, natural versus artificial regenerations	7 & 11	8 and 10
Site preparations	8	11, 12 & 134
Selection of species and provenances, silvics, genetic improvement, use of exotic species	9	6 & 14

Seedling production and stock selection	10	16 & 17
Planting & regeneration surveys	10	18
Vegetation control	6	19

Requirements

Regular attendance to the lectures and participation in classroom discussion are highly recommended. Presence at each laboratory for this course is compulsory. A passing grade in the lab is required to pass the course. A medical note from your Doctor(s) is required for all excused absences. Mark will be deducted on the overdue lab report(s) at a rate of 10% per day.

Evaluation

Quizzes/Assignments	16%
Lab Reports	20%
Midterm Exam	25%
Final Exam	39%
	100%

9 - POINT GRADE	PERCENTAGE EQUIVALENT	DESIGNATION
9	90 - 100	
8	80 - 89	EXCELLENT
7	72 - 79	
6	65 - 71	GOOD
5	57 - 64	
4	50 - 56	PASS
3	45 - 49	FAIL
2	26 - 44	
1	0 - 25	

Laboratory Schedule (the date may be changed)

DATE	LAB #	DESCRIPTION
12/09	1	Introduction
19/09 26/09	2	Pre-harvest Assessment (PHA)
03/10 10/10	3	Planting and regen surveys
17/10	4	Site preparations and equipment
24/10	Midterm Exam	No Lab
31/10	4	Site preparations and equipment
07/11	5	Seedling production
14/11 21/11	6	Silvics of major trees in Canada Presentation of Lab 6
28/11	7	Development of silvicultural prescription based on Lab 2
05/12	8	Open session

The detailed lab instruction will be distributed before each lab. Please bring **calculator**, pencils, eraser, some paper, and binder to hold data sheets at each lab.