

Grande Prairie Regional College
 Department of Science & Technology
Course Outline
 Fall 1996

Course: Forest Ecology (FO 2020)
 Classroom: J202

Instructor: Dr. Weixing Tan
 Office: J210
 Phone: 539-2793

Prerequisites: CH 1610 and BI 2080

Course Description: This is an advanced ecology course, examining unique ecological structure and function in forest ecosystems. Practical applications and/or implications of ecological knowledge in forest ecosystem management are emphasized. Important ecological issues recently arisen in forest resources management are discussed. The lectures and laboratory exercises (each three hours per week) cover the following specific topics: 1) forest ecology and its role in forestry; 2) the concept of forest ecosystem; 3) forest ecosystem functions (energy flow and nutrient cycling); 4) genetic aspects of forest ecosystems; 5) abiotic and biotic environments in forest (e.g. forest fires); 6) forest succession; 7) major applications of ecological knowledge in forest ecosystem management (e.g. forest ecosystem classifications); and 8) recent ecological issues--forest sustainability and conservation.

Textbook: Kimmins JP. 1996. Forest Ecology. Prentice Hall, Upper Saddle River, New Jersey.

References: Waring RH and Schlesinger WH. 1985. Forest Ecosystems: Concept and Management. Academic Press, Florida.

Terry D. 1994. Forest Ecosystems. University of John Hopkins Press.

Evaluation:	Lecture/Lab Quizzes	10%
	Lab Exam	10%
	Lab Reports	30%
	Midterm Exam	20%
	Final Exam	30%
		100%

Requirements: Regular attendance to the lectures and participation in classroom discussion are highly recommended.

Grande Prairie Regional College
 Department of Science & Technology
Laboratory Schedule
 Fall 1996

Course: Forest Ecology (FO 2020)
 Lab Location: J107 (Geology and Ecology)
 Instructor: Dr. Weixing Tan
 Assistant: Rick Scott

WK	DATE	LAB #	DESCRIPTION
1	06/09	1	Introduction
2	13/09	2	Concept of Forest Ecosystem ---A Field Trip with Worksheet
3	(TBA)	3	Forest Succession after Clearcutting ---A Field Study (a whole day lab)
4			
5			
6	11/10	4	(1) Nutrient Cycling in Forest Ecosystem---Slide Demonstration and in- lab Worksheet (2) Preparation of Lab 5
7	18/10	5	Seed Germination of Black Spruce and Lodgepole Pine under Two Temperature Regimes
8	25/10	6	Autecology of Major Trees in Canada
9	01/11		
10	08/11	6	Presentations of Lab 6.
11	15/11	7	Computer Simulation (FORTOON)
12	22/11		Open Session
13	29/11		Lab Exam

The detailed lab instruction will be distributed before each lab.

Requirements: 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.

Each student is expected to supply the following at each lab: calculator, pencils, eraser, some paper, and binder to hold data sheets.