SEP 2 7 2000

GRANDE PRAIRIE REGIONAL COLLEGE

DEPARTMENT OF SCIENCE AND TECHNOLOGY

Bachelor of Applied Forest Resource Management

Dendrology: FO1200

Transfer Status: Under discussion

Pre-requisite: Biology 30

Calendar Description:
Identification, classification and distribution of forest trees of Canada. Identification and classification of shrubs and herbs from different forest communities. Identification of local species are made in the field during field labs. Delineation of forest regions of the world and their major tree species. Basic biology of trees and shrubs.

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Lectures:	Tuesdays and Thursdays	8:30 – 9:50	B305
Labs:	Thursdays	14:30 – 17:30 Field, then	B305

Texts:

Required:
Johnson, Kershaw, MacKinnon, and Pojar. 1995. **Plants of the Western Boreal Forest & Aspen Parkland.** Lone Pine Publishing, 392 pp.

Optional: (available in the library)
Hardin, J.W., Leopold, D.J., and White, F.M. 2001. **Harlow & Harrar's Textbook of Dendrology, Ninth Edition.** McGraw-Hill.
Farrar, J.L. 1995. **Trees in Canada.** Fitzhenry & Whiteside Ltd. & The Canadian Forest Service.
MacKinnon, Pojar, & Coupe. 1992. **Plants of Northern British Columbia.** B.C. Ministry of Forests & Lone Pine Publishing.
Beckingham & Archibald. **Field Guide to Ecosites of Northern Alberta.** Special Report #5. Canadian Forest Service, Northwest Region. Northern Forestry Centre. 1996.
Ringius and Sims. 196. **Indicator Plant Species in Canadian Forests.** Canadian Forest Service.

Websites:
www.canadian-forests.com
www.fs.fed.us

Course Objectives:

- To be able to identify the common trees, shrubs, and forbs growing in the boreal forest and their ecological characteristics.
- To understand the basic biology of trees and shrubs, including the morphology of vegetative parts, reproductive morphology, basic genetics, and ecology.
- To know the major forest regions of North America and their tree species.

Course Outline:

The primary emphasis in the course is on plant identification. We will study the biology of woody plants during the lecture periods. Labs early in the term (before the onset of winter) will consist of field trips in and around Grande Prairie. During these labs we will concentrate on recognition/identification of plant species. Students will be expected to identify the plants from fresh twigs, leaves, bark, fruits, etc. or from lab mounts. Latin names and families will be emphasized. Students are expected to follow the correct method of writing the Latin names, i.e. underline genus and species and capitalize the generic name. Indoor labs, later in the term, will cover tree identification based on wood anatomy and cellular structure. The lecture portion of the course will include tree biology and anatomy, basic genetics, forest regions of the world, and Alberta.

Lab quizzes will be held each week, primarily covering plants studied the most recent lab, but may include any of the species learnt in previous labs. The best 7 of 8 lab quizzes will count towards the grade for quizzes.

A mid-term lecture exam will be held on October 26, 2000.

A mid-term lab exam will be held on October 12. This exam will be held during the normal lab period. The final lab exam will be held on November 9 during the regular lab period.

Evaluation:

Evaluation will consist of two distinct areas of learning; skills (plant identification, herbarium), and knowledge or information (lecture material). The following weights are assigned to each area.

Skills:				
	Plant herbarium	10%		
	Lab quizzes	30%		
	Midterm lab exam	10%		
	Final lab exam	15%		
			Total Skills	65%
Knowledge:				
	Midterm lecture exam	15%		
	Final lecture exam	20%		
			Total Knowledge	35%

Plant Herbarium

One of the requirements of the skills portion of the course is to assemble a plant herbarium (collection). Students will be expected to collect and press two species from each of the first 7 labs. A good specimen consists of a twig, a leaf, and possibly flowers or fruit (if still in season). Plants should be correctly labelled and the location of the specimen when collected should also be noted. The collection and mounting of specimens will be discussed in the first lab period.

Two plants on each plant list distributed to students will be highlighted; these are the specimens to be collected. The herbarium is to be handed in during the final lab of the term. It will be graded for accuracy, organization, and neatness, and is worth 10% of the course grade.

Lab Quizzes

Each lab quiz will require you to identify ten plants, worth ten points each. Emphasis will be on plants studied in the most recent labs, however plants from any lab may be included.

Point Structure (total of 10 points)

Genus	species
(4)	(2)

Family
(2)

common name
(2)

Deductions:

Misspelled word = -1 (per word)
Genus or species not underlined (or in italics) = -1 (per word)
Family or Genus – first letter not capitalized = -1 (per word)
Common name not capitalized if required = -1

Note: Please do not write all words in capital letters.