

GRANDE PRAIRIE REGIONAL COLLEGE
DEPARTMENT OF SCIENCE
COURSE OUTLINE - FALL, 1993

BT 2200 - PLANT SYSTEMATICS.

=====

INSTRUCTOR:

Dr. Joan Snyder
Office: J208
Phones: 539-2846/532-0709

PREREQUISITE:

BT 1990

TEXTBOOK:

Moss, E.H. 1983. Flora of Alberta. 2nd Ed.
revised by John G. Packer. Univ. of Toronto
Press.

Additional references and selected readings will
be provided by the instructor. Suggested
background reading currently available:

Jones & Luchsinger, 1986, Plant Systematics.
Porter, 1967, Taxonomy of Flowering Plants.
Benson, 1957, Plant Classification.

NATURE OF THE COURSE:

While this course will emphasize the taxonomic characteristics of the flora of Alberta and western Canada, important seed plant families from other parts of the world will also be discussed. Evolutionary relationships and processes in the speciation of flowering plants will form the foundation for the systematic study of specific angiosperm families. Practical experience in the identification and keying of plants will be emphasized in the laboratory.

Students will be expected to give two seminars, one on each of two selected plant families. There will be weekly lab quizzes and there will be a midterm exam, a final exam and a lab final exam. There will also be weekly lab quizzes based on the plant families from the previous week.

EVALUATION:

Student Seminars	10%	
Lab quizzes	10%	
Midterm exam	20%	(Oct. 22)
Final lab exam	30%	(Nov.30)
Final exam	30%	(as scheduled)

BT 2200 CLASS SCHEDULE

WEEK OF	TOPICS
Sep. 6 -	Introduction; taxonomic hierarchy, terminology.
13 -	Seed plants; Gymnosperms; the origin and classification of angiosperms.
20 -	Systematics of angiosperm families (for Sep. 21 lab); Angiosperm morphology; taxonomic characters.
27 -	Systematics of angiosperm families (for Sep. 28 lab); Angiosperm morphology; taxonomic characters.
Oct. 4 -	Systematics of angiosperm families (for Oct. 5 and Oct. 12 labs); Angiosperm morphology; taxonomic characters; writing botanical descriptions and keys.
11 -	NO CLASS (Oct. 11, Thanksgiving Day); The Type concept and botanical nomenclature.
18 -	Systematics of angiosperm families (for Oct. 19 lab); Review; MIDTERM EXAM (Oct. 22).
25 -	Systematics of angiosperm families (for Oct. 25 lab); Botanical nomenclature and taxonomic literature.
Nov. 1 -	Systematics of angiosperm families (for Nov. 2 lab); Historical background and principles of plant taxonomy; species concepts in plants and plant speciation.
8 -	Systematics of angiosperm families (for Nov. 9 lab); plant speciation (continued).
15 -	Systematics of angiosperm families (for Nov. 16 lab); sources of taxonomic evidence.
22 -	Review of systematics of angiosperm families.
29 -	Evolution and variation in plants.
Dec. 6 -	Catch-up and review.

BT 2200 LAB SCHEDULE

- Sep. 7 - No Laboratory
- 14 - Introduction to the herbarium, plant presses, plant keys and practical plant identification. We will also take a brief look at the non-flowering vascular plant families, including: *Pinaceae, *Polypodiaceae, *Lycopodiaceae, *Equisetaceae

The remaining plant families are members of the flowering vascular plants. An asterisk preceding a family name indicates that representative species in this family are relatively common in this area REVISED:

- Sep. 21 - Magnoliaceae, Nymphaeaceae, *Ranunculaceae, Papaveraceae, Fumariaceae, Sarracenaceae, Cactaceae
- 28 - *Caryophyllaceae, Portulacaceae, *Polygonaceae, *Salicaceae, Malvaceae, Urticaceae
- Oct. 5 - *Violaceae, Cucurbitaceae, *Brassicaceae, *Ericaceae, Primulaceae, Droseraceae, Crassulaceae
- 12 - *Saxifragaceae, *Rosaceae, *Fabaceae (Leguminosae), Onagraceae, Euphorbiaceae, *Gentianaceae, Apocynaceae
- 19 - No laboratory
- 26 - Convolvulaceae, Polemoniaceae, *Boraginaceae, *Lamiaceae (Labiatae), *Apiaceae (Umbelliferae), Asclepiadaceae
- Nov. 2 - *Scrophulariaceae, Campanulaceae, *Rubiaceae, *Asteraceae (Compositae), Solanaceae, Oleaceae
- 9 - *Cyperaceae, *Poaceae (Gramineae), *Juncaceae
- 16 - Alismataceae, Araceae, *Liliaceae, Iridaceae, *Orchidaceae, *Typhaceae
- 23 - Review\study
- 30 - Final Lab Exam

*Watching gardeners label their plants
I vow with all beings
to practice the old horticulture
and let the plants identify me.*

ROBERT AITKEN