GRANDE PRAIRIE REGIONAL COLLEGE

DEPARTMENT OF SCIENCE

COURSE OUTLINE 1986-1987

COURSE: Botany 205--Plant Biology

INSTRUCTOR: J. Snyder
Office PR 1, 539-2823

LAB TECHNICIAN: C. Howes
Lab 130, 539-2953

NATURE OF COURSE:

Botany 205 is an introduction to the biology of plants emphasizing the relationship between form and function. The first half of the course deals with the evolutionary history of plants, concentrating on the major adaptive and distinguishing features and reproductive strategies of important representative plant divisions.

The second part of the course stresses plant function with emphasis on the physiological processes of plants including nutrient and energy relations and growth and development.

REQUIREMENTS:

A. Since presence at lectures and labs, participation in classroom discussion and projects, and the completion of assignments are important components of this course, students will serve their interests best by regular attendance. Those who choose not to attend must assume whatever risks are involved. In this connection the attention of students is directed to the Academic Guidelines of the College.

B. There will be a midterm and a final exam, a lab final exam, two scheduled quizzes and weekly lab reports required.

EVALUATION:

Quizzes	15%
Lab Reports	20%
Midterm Exam	20%
Final Lab Exam	15%
Final Exam	30%
	100%

TEXTBOOKS/RESOURCES:

Raven, P.H., and Johnson, G.B. 1986. Biology. Moseby, Toronto. Relevant Chapters.

Stetler, D. 1986. Study Guide to Accompany Raven/Johnson Biology. Moseby, Toronto

Ray, P.M. 1972. The Living Plant. Saunders College Pub., Toronto

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TEXTBOOKS/RESOURCES:
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Young, P. 1982. The Botany Coloring Book. Barnes and Noble, N.Y.

University of Alberta Laboratory Manual for Botany 205

GENERAL LECTURE/LAB SCHEDULES:

General lecture and lab schedules are attached.

LECTURE AND LABORATORY SCHEDULES

DATE	TOPICS	LAB #
Sept. 5	Introduction	none
Sept. 8-12	Historical development of plant biology as a science. Plant cells: cell theory, prokaryotes and eukaryotes, review of cell division and meiosis. (Text Chpt. 5 & 6)	1
Sept. 15-19	Plant classification; plant reproduction - general concepts. (Text Chpt. 22) Quiz-Sept. 19.	none
Sept. 22-26	Major "plant" groups: evolution, characteristics, structure, reproduction and ecology -	3
	A. Viruses. (Text Chpt. 25) B. Prokaryotes - Bacteria. (Text Chpt. 26)	
Sept. 29-Oct. 3	C. Eukaryotes -	7
	1. Protists (Text Chpt. 27)	
Oct. 6-10	2. Fungi (Text Chpt. 28)	6
Oct. 13-17	(Holiday-Oct. 13)	8
	3. Plants (Text Chpt. 29) Bryophytes	
	Midterm Exam - Oct. 17	
Oct. 20-24	Psilophyta, Lycophyta, Sphenophyta and Pterophyta	9
Oct. 27-31	Seed Plants: Coniferophyta, Cycadophyta, Ginkgophyta & Gnetophyta	10
Nov. 3-7	Anthophyta (Angiosperms): Flowering Plants (Text Chpt. 30)	11
Nov. 10-14	Vascular Plant Structure (Text Chpt. 31)	4
Nov. 17-21	Photosynthesis (Text Chpt. 12) Quiz-Nov. 21.	2
Nov. 24-28	Nutrition and transport in plants (Text Chpt. 34)	5
Dec. 1-5	Growth and Development in plants (Text Chpt. 32 &33)	Lab Fin. Exam
Dec. 8	Growth and Development in plants.	