GRANDE PRAIRIE REGIONAL COLLEGE

Department of Science

Twenty-Eighth Session 1993-94

CHEMISTRY 2600: **Organic Chemistry**

PREREQUISITE: Chemistry 1000 or 1040

INSTRUCTOR: Dr. John P. Sloan, Office # J207
Phone # 539-2004 (Col), 532-0541 (R)

LECTURE: MWF, 9:00 - 9:50 p.m. in J201

ALBERTA TRANSFER CREDIT:

U of Alberta:	CHEM 260	6 credits
U of Calgary:	CHEM 350	6 credits
U of Lethbridge:	CHEM 2500/2600, or 2100/2200	6 credits
Athabasca U:	CHEM 3xx	6 credits
Augustana U Col:	CHE 351/352	6 credits
Concordia Col:	CH 260	6 credits
The King's Col:	CHEM 350/351	6 credits
Canadian Un Col:	CHEM 241/242	8 credits

COURSE OUTLINE:

Lecture Component:
A study of the compounds of carbon with emphasis on reaction mechanisms to illustrate the basic principles of organic chemistry. Topics include: structure and bonding; physical properties; acidity and basicity; conformations of molecules; stereochemistry; addition, elimination and substitution reactions; structure-reactivity relationships; aromaticity and aromatic substitution; spectroscopic methods for structure determination; condensation reactions, and; carbohydrates, lipids, amino acids and proteins.

A representative selection of molecules found in agricultural, biological, environmental, industrial, medical, and pharmatheutical applications of organic chemistry will be discussed, e.g., molecules found in agrochemicals, amino acids, carbohydrates, fibres, food additives, perfumes, polymers, and prescription drugs.

Laboratory Component:
Organic laboratory techniques using a microscale approach; preparation of some organic compounds, and; methods of qualitative organic analysis.

Tutorial Component:
Problem solving and discussion sessions with weekly problem sets. Regular tests will be given and marked.

Notes:
1. Lectures will be on Mondays, Wednesdays and Fridays from 9:00 to 9:50 in J201.

2. Laboratory Section L1 will be on Mondays from 15:00 to 17:50 in J116 and, Laboratory Section L2 will be on Mondays from 15:00 to 17:50 in J119.

3. Tutorial S1 will be on Mondays from 8:00 to 8:50 in J101 and, Tutorial S2 will be on Wednesdays from 8:00 to 8:50 in J101.

TEXT BOOKS AND LABORATORY ITEMS:

The following books are required:

1. Wade, L.G. (jr), Organic Chemistry, 2nd Edition, Prentice-Hall, 1991;

2. Pavia, D.L., Lampman, G.M., Kriz, G.S., and Engel, R.G. "Introduction to Organic Laroratory Techniques: a Microscale Approach", Saunders, 1990, ISBN 0-03-025418-3.

3. A hard backed laboratory report book, and;

4. An assignment book.

The following is highly recommended:

1. Molecular Structure Model Set B, Holden-Day, or the Allyn and Bacon Molecular Model Set for Organic Chemistry, and;

2. A Fieser Triangle for drawing chemical structures.

Notes:

1. All required books, Fieser triangles, safety glasses, and lab coats are available at the College Bookstore.

2. Molecular structure model sets are available on loan from the Chemistry Lab Technician in room J120.

3. A limited number of solutions manuals by J.W. Simek are available at the Bookstore.

4. Safety glasses are required for the laboratory.

EVALUATION:

The examination schedule and composition of the final grade is:

1.	First Semester Midterm Exam: Monday, October 18	10%
2.	First Semester Final Exam to be scheduled between Dec 13 & 21	18%
3.	Second Semester Midterm Exam: Monday, February 14.	12%
4.	Second Semester Final Exam to be Scheduled between April 18 & 26	20%
5.	Laboratory	25%
6.	Tutorial Grading Component	15%
		100%

The grades are based on the nine point stanine scale and correlate with the following designations:

Stanine		Designation
9	----------	Outstanding
8	----------	Excellent
7	----------	Very Good
6	----------	Good
5	----------	Fair
4	----------	Pass
3		
2		
1		

Notes:

1. The two mid-term exams will each be of 2 hours duration and the final exams will be of 3 hours duration.

2. Between 5 and 15% of exam content will be taken directly from weekly problem assignments and tests.

3. A pass grade is essential for the laboratory component.

4. The Tutorial Grading Component consists of tests and will contribute towards 15% of the final grade.

5. Regular attendance in lecture, laboratory, and tutorial components is a course requirement.