GRANDE PRAIRIE REGIONAL COLLEGE

Department of Science

Twenty-eighth Session 1993-94

CHEMISTRY 1600: Organic Chemistry

PREREQUISITE: Chemistry 30 or equivalent

INSTRUCTOR: Dr. John P. Sloan, Office # J207.
Phone # 539-2004

LECTURE: MWF, 2:00 - 2:50 p.m. in J131

ALBERTA TRANSFER CREDIT:

U of Alberta:	CHEM 160	6 credits
U of Calgary:	Jr. Org. Chem	6 credits
U of Lethbridge:	CHEM 2100/2200, or 2500/2600	6 credits
Athabasca U:	CHEM 2xx	6 credits
Augustana Uni Col:	CHE 2xx	6 credits
Concordia Col:	CH 160	6 credits
The King's College:	CHEM 2xx	6 credits
Canadian Union Col:	CHEM 1xx	8 credits

COURSE OUTLINE:

Lecture Component:

A study of the fundamental principals of the chemistry of carbon compounds based on a reaction mechanism approach to functional group chemistry of the main classes of organic compounds. 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:
Techniques in organic chemistry; 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 14:00 to 14:50 in J131.

2. Laboratory Section L1 will be on Tuesdays from 8:00 to 10:50 in J116 and,
Laboratory Section L2 will be on Tuesdays from 15:00 to 17:50 in J116.

3. Tutorial S1 will be on Tuesdays from 11:00 to 12:20 in J202 and,
Tutorial S2 will be on Thursdays from 9:30 to 10.50 in J204.

TEXT BOOKS AND LABORATORY ITEMS:

The following books are required:

1. Solomons, T.W.G., Organic Chemistry, 5th edition, Wiley, 1992;

2. Organic Chemistry Experiments, Chemistry 160, University of Alberta, 1993;

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, 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 Study Guides by Solomons and Fernandez are available at the Bookstore.

4. Safety glasses are provided and are required for the laboratory.

EVALUATION:

The examination schedule and composition of the final grade is:

1.	First Semester Midterm Exam: Week of October 18 ----------	10%
2.	First Semester Final Exam to be scheduled between Dec 13 & 21 -	18%
3.	Second Semester Midterm Exam: Week of 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.