GRANDE PRAIRIE REGIONAL COLLEGE

Department of Science

Twenty-ninth Session 1994-95

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 pm 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 1xx	6 credits
Concordia Col:	CH 160	6 credits
The Kings Col:	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. The study is based on a reaction mechanism approach to the 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 J201 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, 1994;

3. Organic Chemistry Laboratory Report Book, University of Alberta, 1994

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.

The following are supplementary books:

1. Fernandez, J.E., and Solomons, T.W.G., Study Guide and Solutions Manual to Organic Chemistry, 5th edition, 1992;

2. Zubrick, J.W., The Organic Chem Lab Survival Manual: A Student's Guide To Techniques, 3rd edition, 1992.

Notes:

1. All required and supplementary books, molecular structure model sets, Fieser triangles, safety glasses, and lab coats are available at the College Bookstore.

EVALUATION:

The examination schedule and composition of the final grade is:

1.	First Semester Midterm Exam: Week of October 17 ----------	10%
2.	First Semester Final Exam to be scheduled between Dec 12 & 20 ---	18%
3.	Second Semester Midterm Exam: Week of February 13 ----------	12%
4.	Second Semester Final Exam to be Scheduled between April 22 & 29 -	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. A 10 question test will normally be given each week during the tutorial hour. To encourage general discussion and active student participation, test questions may be answered within "paired teams". Tests not completed during the tutorial period are due within 24 hours without penalty. The marking scheme is:

   4.1 1 mark per correct answer with full details;
   4.2 1/2 mark per correct answer with no details;
   4.3 20% shall be deducted from the mark for each college business day that a test is overdue.

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