GRANDE PRAIRIE REGIONAL COLLEGE

Department of Science and Technology

Thirty-Second Session 1997-98

CHEMISTRY 1610: Organic Chemistry I

PREREQUISITE: Chemistry 30 or equivalent

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

LECTURE: MWF, 11:00 - 11:50 in J201

ALBERTA TRANSFER CREDIT for CH1610 plus CH1630:

U of Alberta:	CHEM 161/163	6 credits
U of Calgary:	CHEM 351/353	6 credits
U of Lethbridge:	CHEM 2100/2200	6 credits
Athabasca U:	CHEM 2xx	6 credits
Augustana U Col:	CHE 1xx	6 credits
Concordia Col:	CH 161/163	6 credits
The King's U Col:	CHEM 2xx	6 credits
Canadian Union C:	CHEM 1xx	8 credits

COURSE OUTLINE:

Lecture Component:

A study of the fundamental principles of the chemistry of carbon compounds. The study is based on a reaction mechanism approach to the functional group chemistry of alkanes, alkenes, alkynes, cycloalkanes, alkyl halides, alcohols and ethers. Topics include: structure and bonding; physical properties; acidity and basicity; conformations of molecules; stereochemistry; addition, elimination and substitution reactions; structure-reactivity relationships; and introduction to methods for structure determination.

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, fibres, food additives, perfumes, polymers, and prescription drugs.

Laboratory Component:
Laboratory 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 11:00 to 11:50 in J201.**

2. **Laboratory Experimental Work will be on Tuesdays from 8:00 to 10:50 in J119**

3. **Tutorials will be on Thursdays from 9:30 to 10:50 in J227 and,**

TEXT BOOKS AND LABORATORY ITEMS:

The following book is required:

1. **Solomons, T.W.G., *Organic Chemistry*, 6th Edition, Wiley, 1995;**

The following is highly recommended:

1. **HGS Molecular Structure Model C Set for Organic Chemistry, Freeman, ISBN 0-7167-1972-X.**

The following are supplementary items:

1. **Fernandez, J.E., and Solomons, T.W.G., *Study Guide and Solutions Manual to Organic Chemistry*, 6th edition, 1995;**

2. **A Fieser Triangle for drawing chemical structures.**

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:

1.	Midterm Exam: Tuesday, February 17 ----------	20%
2.	Final Exam to be scheduled between April 20 & 28 -	40%
3.	Laboratory ----------	25%
4.	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 Mid-Term exam will be of 2 hours duration and the Final Exam 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, or later at the discretion of the Instructor. The marking scheme is:

4.1 **1 mark per correct answer with full details;**

4.2 **1/2 mark per correct answer with incomplete details;**

4.3 **20% may 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.**