Reg Office

GRANDE PRAIRIE REGIONAL COLLEGE

Department of Science

Thirtieth Session 1995-96

CHEMISTRY 1630: CH1630 Organic Chemistry II 3(3-1-3) UT(3)

PREREQUISITE: Chemistry 1610

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

LECTURE: MWF, 2:00 - 2:50 pm in J228

ALBERTA TRANSFER CREDIT:

U of Alberta:	CHEM 163	3 credits
U of Calgary:	Jr. Org. Chem	3 credits
U of Lethbridge:	CHEM 2200 or 2600	3 credits
Athabasca U:	CHEM 2xx	3 credits
Augustana Uni Col:	CHE 1xx	3 credits
Concordia Col:	CH 163	3 credits
The Kings Col:	CHEM 2xx	3 credits
Canadian Union C:	CHEM 1xx	4 credits

COURSE OUTLINE:

Lecture Component:

A continuation of the study of the fundamental principles of the chemistry of carbon compounds as commenced in Chemistry 1610. The study is based on a reaction mechanism approach to the functional group chemistry of arenes, aldehydes, ketones, carboxylic acids, esters, amides, amino acids and carbohydrates. Topics include: structure and bonding; physical properties; acidity and basicity; conformations of molecules; stereochemistry; addition, elimination and substitution reactions; structure-reactivity relationships; aomaticity and aromatic substitution; and spectroscopic 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:
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 J228.

2. Laboratory Experimental Work will be on Tuesdays from 15:00 to 17:50 in J116.

3. Tutorials will be either on Tuesdays at 11:00 in J201 or Thursdays at 9:30 in J204.

TEXT BOOKS AND LABORATORY ITEMS:

The following books are required:

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

2. *Browne, L.M., Organic Chemistry Experiments, Chemistry 160,* University of Alberta, 1995;

The following is highly recommended:

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

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

3. 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 is:

1.	Midterm Exam: Week of February 12 ----------	20%
2.	Final Exam to be Scheduled between April 15 & 22 -	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 6 days 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 **50% may be deducted from the mark for receipt of the test one day late;**
   - 4.4 **no marks may be given for tests received later than one day after the due date.**

5. **Regular attendance in the Lecture, Laboratory, and Tutorial Components of CH1630 is a Course Requirement.**