RHODES COLLEGE

CHEM 212 – INTRODUCTORY ORGANIC CHEMISTRY – SPRING 2008

MWF 9:00-9:50 am – 201 Kennedy Hall

Instructor: Julie Cong-Dung Le
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Peer tutors: Lori Culberson cullm@rhodes.edu
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Office hours: **Mon Wed Thurs** 10:00 – 11:00 am, **Tues** 4:30-6:00 pm and by appointment

Course website: can be found at https://webct.rhodes.edu/webct/entryPage.dowebct

Prerequisite: CHEM 211 with a grade of at least D or Pass.
Co-requisite: CHEM 212L

Course Description: This course is a continuation of CHEM 211. The subject matter to be covered in this semester include spectroscopy of organic molecules, the chemistry of functional groups focusing on carbonyl compounds, carboxylic acid and derivatives, aromatic compounds, amines, enol and enolate ions and an introduction to biological molecules such as carbohydrates, amino acids, peptides and lipids.

Course Objectives: Organic Chemistry is the chemistry of life and the most common chemistry used in the manufacturing of drugs, clothing, plastics, explosives, fuels, etc. The goal of this course is to give the student a firm foundation from which to understand chemical transformations, such that specialized and advanced chemistry courses can be easily approached and in order that the common chemical problems confronting society can be understood from a rational and educated basis.

Course Materials:

- Textbook (required): Brown, W. H.; Foote, C. S; Iverson, B. L. *Organic Chemistry*, 4th Ed.
- Study Guide (optional): Iverson & Iverson. *Student Study Guide & Solutions Manual for Organic Chemistry*, 4th Ed.
- Model Kit (optional): *FlexibleStereoChemistry – The Flexible Molecular Model Kit* or Darling Models. You will be allowed to use this kit during exams/quizzes.

Course Evaluation: There will be a total of 700 possible points in this class, distributed in the following way:

Four Midterm Exams	400 pts
ACS Standardized Exam	150 pts
Quizzes	100 pts (best 10 of 12 will count)
Homework Assignments	50 pts

Letter Grade Equivalents:

GRADE	TOTAL POINTS	GRADE	TOTAL POINTS	GRADE	TOTAL POINTS
A	651-700	**B–**	560-580	**D+**	470-489
A–	630-650	**C+**	539-559	**D**	442-469
B+	609-629	**C**	511-538	**D–**	420-441
B	581-608	**C–**	490-510	**F**	<419

Midterm Exams: There will be **four** midterm exams given on Tuesday nights from 7:00-9:00 pm (see TENTATIVE CLASS SCHEDULE at the end of the syllabus). Each exam is worth 100 pts. You will be allowed to make up a missed exam only with an excused absence. If possible, you should let me know at least a week in advance if you are unable to take the exam at its scheduled time. Failure to do so, you will automatically receive no points for that evaluation. There will be a review session for each exam, the times and locations to be announced in class.

ACS Final Exam: This exam will be **cumulative** and **mandatory**. A good study guide would be old quizzes and exams. **There will be no make up for Final Exam**. An alternative time to take the exam will be provided for those students who have three Final Exams on the same day.

Weekly Quizzes and Homework Assignments: Announced quizzes will be given roughly every week covering content from reading assignments and/or class discussions. The exact date for each quiz will be posted on the WebCT calendar. You will be allowed to drop your two lowest quiz scores. Quizzes **cannot be made up for any reason.**
Working problems outside of class is an important and expected activity in the mastery of organic chemistry. Thus, additionally homework assignments will be given. Five sets of these problems will be collected and graded. No late homework assignments will be accepted for any reason. Working these assigned problems in small groups with your classmates can be advantageous in the learning process.

Attendance: Your attendance at every lecture **is expected and is important** to progress in this course. If you find it necessary to miss a class, check the class calendar posted on WebCT for any special reading assignments for the next lecture and any new assigned problems for the lecture that you missed.

Academic Honesty: The Honor Code governs your behavior in this class, and ALL work turned in for grading must be PLEDGED to be YOUR OWN.

Students with Special Needs: Any student needing extra time, a special environment, aids, etc. for exams/quizzes is required to notify the instructor at the first class meeting or no later than the first week of classes. A documentation of special needs must be furnished by the Office of Student Disability Services as soon as possible. For more information, please contact the Coordinator of Disability, Mrs. McCowen, at 843-3994.

How to succeed in Organic Chemistry II: There is no single best method for studying organic chemistry, but here are a few suggestions.

- **DO NOT FALL BEHIND!**
- **Study Organic chemistry *at least* one hour every day!**
- Attend class regularly, stay alert and take good notes.
- Scan the assigned reading before attending lecture.
- During lecture: Ask questions if you do not understand the material.
- Work all suggested textbook problems associated with each lecture.
- Make flash cards for new reactions and mechanisms.
- If you don't understand the material, get help early by attending office hours.
- Form study groups.
- Minimize memorization and do more practice!!!

TENTATIVE CLASS SCHEDULE – SPRING 2008

	Chapter 12: Infrared Spectroscopy
	Chapter 13: Nuclear Magnetic Resonance Spectroscopy
	Chapter 14: Mass Spectroscopy
Tuesday, Jan 29	**EXAM 1 (7:00 – 9:00 pm)**
	Chapter 15: Organometallic Compounds
	Chapter 16: Aldehydes and Ketones
	Chapter 17: Carboxylic Acids
Tuesday, Feb 26	**EXAM 2 (7:00 – 9:00 pm)**
	Chapter 18: Derivatives of Carboxylic Acids
	Chapter 19: Enolate Anions and Enamines
	Chapter 20: Conjugated Systems
	Chapter 24: Carbon-Carbon Bond Formation and Synthesis
Tuesday, April 8	**EXAM 3 (7:00 – 9:00 pm)**
	Chapter 21: Benzene and Derivatives
	Chapter 22: Reactions of Benzene and Derivatives
	Chapter 23: Amines
	Chapters 25-27: Introduction to Carbohydrates, Lipids, Amino Acids and Proteins (if time permits)
Tuesday, April 22	**EXAM 4 (7:00 – 9:00 pm)**
Tuesday, April 29	**ACS STANDARDIZED EXAM (5:30 – 7:30 pm)**