

CHEMISTRY 242-11
ORGANIC CHEMISTRY II SYLLABUS
Spring 2002, Xavier University

Instructor: Dr. Daniel J. McLoughlin

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Office Hours: MF 10:30-11:20, TTh 9:00-10:00, and by appointment

Prerequisite: Organic Chemistry I Lecture and Laboratory, CHEM 240, CHEM241

Corequisite: CH243, Organic Chemistry Laboratory II, 1 credit hour, 3.5 contact hours

Format: Three 50 minute lectures per week, 9:30 • 10:20 am MWF, 3 credit hours lecture, 1 cr hour lab.

Description: The second semester of a full year course in organic chemistry. This course is an introduction to the structure, bonding, reactions, and properties of organic compounds.

Rationale: This course has been approved for an American Chemical Society Certified Degree program. It is intended for students majoring in Chemistry, Biology, Natural Sciences, or those seeking entry into health professional programs. This course applies toward the requirements for entry into medical, dental, and veterinary schools.

Required Text: Graham Solomons, Craig Fryhle, "Organic Chemistry, 7th Edition", Wiley, 2000. Problem solution book and molecular model kit suggested.

Attendance: Regular attendance in this lecture class is recommended but not required and roll will not be taken.

Examinations: Examination dates are listed on the attached schedule. Students are responsible for taking the examinations at the scheduled times. Exceptions are made only for good cause and if arrangements are made in advance. Normally a make-up exam will not be allowed. Normal policy is that if a student does miss a single exam (except the final exam), the student will be given the class average for that single exam or the student's current class test average, **WHICH EVER IS LOWER**. Also an explanation as to why you missed the exam must be submitted in writing. **ALL STUDENTS MUST TAKE THE FINAL EXAM.**

Evaluation of student performance in this section will be based as follows:

Six tests, each counting equally toward the final grade will constitute the grade. The sixth test,

the final examination, will be a nationally standardized examination and will be comprehensive on a full year.

Grades: A: 90-100, B: 80-89, C: 70-79, D: 60-69, F: Below 60. This grading scale is subject to downward re-evaluation depending on overall class performance.

It should be noted that according to the Xavier University Catalog, a grade of "A" is earned for "Exceptional" performance. This is also the agreed grading policy of the faculty in the Chemistry Department.

Academic Misconduct Policy: A zero grade will be given to any student violating the University Academic Honesty Policy. The student may appeal according to normal university procedures as stated in the University Catalog.

It is the responsibility of the student to inform the instructor at the beginning of the semester of any individual conditions, medical or otherwise, that may require special attention. Appropriate consideration will be given in these situations.

The schedule and procedures in this course syllabus are subject to change in the event of extenuating circumstances. These changes, if necessary, will be announced to the class in as timely a manner as possible.

ORGANIC II SCHEDULE

M 1/14	Chapter 11	- Introduction, Alcohols and Ethers Nomenclature
W 1/16	Chapter 11	- Synthesis from Alkenes
F 1/18	Chapter 11	- Reactions of Alcohols
M 1/21	No Class	- Martin Luther King Day, Holiday
W 1/23	Chapter 11	- Synthesis of Ethers
F 1/25	Chapter 12	- Oxidation and Reductions of Carbonyl Compounds
M 1/28	Chapter 12	- Grignard Reactions
W 1/30	Chapter 12	- Synthesis with organometallic intermediates
F 2/1	Chapter 13	- Conjugated Unsaturated Systems
	M 2/4	Test 1 - Chapters 11 and 12
	W 2/6	Chapter 13 - The Allyl Radical and Cation, - 1, 4 vs 1, 2 additions
F 2/8	Chapter 13	- 1, 4 cycloadditions; the Diels-Alder reaction
M 2/11	Chapter 14	- Aromatic Compounds
W 2/13	Chapter 14	- Huckel's Rule

F 2/15	No Class	- Spring Holiday
M 2/18	Chapter 14	- Spectroscopy of Aromatic Compounds
W 2/20	Chapter 15	- Reactions of Aromatic Compounds
F 2/22	Chapter 15	- Electrophilic Substitution
M 2/25	Chapter 15	- Friedel-Crafts Reactions
W 2/27	Chapter 15	- Substituent Effects
F 3/1	Chapter 15	- Example Synthesis
M 3/4	Chapter 16	- Nucleophilic Addition to Carbonyls
W 3/6	Chapter 16	- Hemiacetals and Hemiketals
F 3/8	Test 2	- Chapters 14 and 15
M 3/11	Chapter 16	- The Wittig Reaction
W 3/13	Chapter 16	- Synthesis using carbonyl compounds
F 3/15	Chapter 17	- The Aldol Reaction
M 3/18	Chapter 17	- Crossed Aldol reactions
W 3/20	Chapter 17	- Cyclizations via aldol reactions
F 3/22	Test 3	- Chapters 16 and 17
M 3/25	No Class	- Spring Break, Easter Holiday
W 3/27	No Class	- Spring Break, Easter Holiday
F 3/29	No Class	- Spring Break, Easter Holiday
M 4/1	No Class	- Spring Break, Easter Holiday
W 4/3	Chapter 18	- Carboxylic Acids and Derivatives
F 4/5	Chapter 18	- Nucleophilic Addition- Eliminations
M 4/8	Chapter 18	- Esters and Amides
	W 4/10	Chapter 19 - Synthesis using Enolate
	Anions	
	F 4/12	Chapter 19 - Acetoacetic Ester Synthesis
M 4/15	Chapter 19	- Michael Additions
W 4/17	Test 4	- Chapters 18 and 19
F 4/19	Chapter 20	- Amines
M 4/22	Chapter 20	- Synthesis of Amines
W 4/24	Chapter 20	- Reaction of Amines
F 4/26	Chapter 21	- Phenols and Aryl Halides
M 4/29	Chapter 21	- Nucleophilic Aromatic Substitutions
W 5/1	Test 5	- Chapters 20 and 21
F 5/3	Review	- Review for Comprehensive Final

FINAL EXAM - W 5/8 – ACS Comprehensive Final Exam, 8:30 - 10:20pm

Other Significant Dates

Monday, March 4 - Midterm Grades Due.

Monday, April 15 - Final Date to Withdraw Without Failure._