
CHM 300 – Survey of Organic Chemistry Course Syllabus, Summer 2015

Student Learning Objectives

The main goal of this course is to provide you with an in-depth understanding of the basic concepts of organic chemistry. The naming, structure, properties, and reactions of several classes of organic molecules will be studied. Special emphasis will be placed on predicting physical properties of organic molecules & understanding chemical reactivity of various functional groups.

Professor

Nicholas McGrath, Ph. D., 4009 Cowley Hall Email: nmcgrath@uwlax.edu Office phone: (608) 785-8287

Office Hours: Mondays & Wednesdays 11:30 AM – 12:30 PM.

Lecture Schedule: M-T-W-Th 8:00-9:15 AM. Room 100 Cowley Hall. Attendance is expected.

Textbook: McMurry/Simanek; *Fundamentals of Organic Chemistry*. 6th edition.

Molecular Models

These may be purchased from the bookstore (\$13.75) or online. Models will assist you in visualizing the three-dimensional structure of organic molecules. You may also use a model kit on the exams if you wish.

Grading

All graded homework and exams will be returned during class or can be picked up at my office. Exam keys will be posted for ~1 week following each exam in the display case near room 402 Cowley Hall. Also note the following:

- ⬢ **Cheating.** You are expected to maintain a high level of academic honesty and integrity, and any indication that these standards are not being met will be confronted. Cheating on exams, and copying the work of fellow students will invoke severe penalties and can lead to your dismissal from the University. For complete details on UW-L's policy on student conduct: http://www.uwlax.edu/StudentLife/academic_misconduct.htm
- ⬢ **Problem Sets (4 x 25 points).** Four, problem sets worth 25 points each will be given throughout the semester that will highlight the most important concepts from each unit. These will help clarify the most likely topics to show up on subsequent exams and help to determine which topics require additional studying.
- ⬢ **Exams (4 x 100 points).** Four, 75-minute exams worth 100 points each will be given during class time. If an exam has to be missed, arrangements must be made with me ahead of time to schedule a make-up exam. An absence without prior notice will result in a score of 0 points on that exam.
- ⬢ **Laboratory (150 points).** The laboratory accounts for a maximum of 150 points. The laboratory portion of the course grade will be based on the lab percentage reported to me by your laboratory instructor.

A = 100-90% || AB = 89-88% || B = 87-80% || BC = 79-78% || C = 77-70% || D = 69-60% || F = <60%

Students with Disabilities

Any student with a documented disability (e.g., physical, learning, psychiatric, vision, hearing, etc.) who needs to arrange reasonable accommodations must contact the instructor and the *Disability Resource Services Office* (165 Murphy Library, 785-6900) at the beginning of the semester. Students who are currently using the Disability Resource Services Office will have a copy of a contract that verifies they are qualified students with disabilities who have documentation on file in the Disability Resource Services Office. It is the student's responsibility to communicate their needs with the instructor in a timely manner.

Lecture Schedule

Date	Topic	Reading	Suggested Problems
June 22-24	Introduction, Bonding, Acid-Base Theory	Chapter 1	32, 35, 39, 41, 43, 45, 48-49, 52, 54, 56-58, 60, 68
June 25, 29-30	Alkanes, Isomers, Conformations, Functional Groups	Chapter 2	31, 37, 39-41, 43-45, 52-55, 59, 60, 67, 74(not d)
July 1-2	Alkenes and Introduction to Arrow-Pushing	Chapter 3	29(not d), 31, 33, 36, 41-43, 48, 50, 53, 58, 60, 65a
July 6-9	Stereochemistry	Chapter 6	27-30, 33, 35-37, 39-42, 44, 45, 50, 57-59, 63
July 13	Exam 1	Ch. 1-3	
July 14	Reactions of Alkenes and Alkynes	Chapter 4	32, 33, 36, 38, 40-42, 44, 46, 47, 49
July 15	IR Spectroscopy	Chapter 13	40-42
July 16, 20	Aromatic Compounds & EAS Reactions	Chapter 5	27, 30, 33-36, 41, 44, 49, 53, 55, 58, 59
July 21-23, 27	Alkyl Halides, Substitution/Elimination Reactions	Chapter 7	27, 28, 31-33, 35, 37, 40, 42, 44, 47, 61
July 28	Exam 2	Ch. 4-6, 13	
July 29	Alcohols, Phenols, Ethers	Chapter 8	26, 33-37, 39, 40, 42, 45, 50
July 30	Aldehydes and Ketones	Chapter 9	26, 32, 34, 38, 39, 42, 45, 54(a,b)
August 3, 4	Nuclear Magnetic Resonance	Chapter 13	51-54
August 5	Carboxylic Acids and Derivatives	Chapter 10	32(b-d), 34(a-f), 38, 41, 43, 59, 65, 73
August 6	Exam 3	Ch. 7-9, 13	
August 10-12	Carboxylic Acids and Derivatives	Chapter 10	
August 13	Carbohydrates	Chapter 14	27, 34-36, 38, 46
August 14	Exam 4	Ch. 10, 14	