CHE 261 - Organic Chemistry I
Spring 2012 Syllabus and Schedule

Instructor: Dr. Pete Smith
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Office: HSC 368
Office Hours: MWF 12:50 - 1:50, TR 9:20 – 10:50, and by appointment (walk-ins welcome!)
Course Meeting Times (Lecture/Lab): MWF 10:30 - 11:30 AM in HSC 369
Lab 01 M 2:00 - 5:00 in HSC 359
Lab 02 W 2:00 - 5:00 in HSC 359

Course Webpage: This course will use the my.westminster page for the course schedule, gradebook, and copies of handouts.

Course Description: This course details organic molecules by functional group and emphasizes the differences between organic molecules. Specifically each functional group is presented in terms of structure, nomenclature, physical and chemical properties, and the major chemical reactions used in synthesis and identification. IR and NMR spectroscopies and mass spectrometry are also presented. Coordinated with the lecture, laboratory activities initially introduce basic skills for determination of physical and chemical properties, methods of purification, and spectroscopy. This semester provides a thorough overview of organic chemistry.

Required Materials

- You are required to buy the textbook *Organic Chemistry I* by Sherwood.
- You are *required* to purchase online access to *Smartwork* as completion of assignments on this website constitutes 15% of your course grade. Standalone access is $20.
- You are *may want but are NOT required* to purchase the e-textbook *Organic Chemistry* by Maitland and Jones. This can be bundled with *Smartwork*. Smartwork plus ebook access is $53.
  Go to http://smartwork.wwnorton.com to purchase a registration code and create your Smartwork account.
  The enrollment key for our course is SMITH2289
- *The Organic Chem Lab Survival Manual* 8e, by Zubrick, Wiley (2010).
- *Laboratory Research Notebook*, Jones and Bartlett (1994).

Student Outcomes: At the end of this course, a successful student will be able to

- Demonstrate a base knowledge of organic chemistry and its relationship to common/natural compounds.
  Students will acquire this knowledge primarily through a survey of the organic functional groups.
- Demonstrate the ability to name organic molecules.
- Demonstrate the ability to predict the products of simple organic reactions.
- Demonstrate an understanding of organic spectroscopy and spectrometry by using these techniques to deduce the structures of simple organic compounds.
- Demonstrate the laboratory skills of synthesis, purification, and characterization of organic molecules.
- Create and maintain an organized and legible laboratory notebook that includes (for each experiment): the chemical and physical properties and safety information of all chemicals used; a detailed experimental procedure; relevant observations; all acquired data; and student-generated discussions and conclusions.

Course Requirements and Grading:

Exams	3 @ 15%	45%
Final Exam		15%
Smartwork Assignments		15%
Pre-Lab Quizzes		5%
Lab Assignments		20%
Total		**100%**

A ≥ 90%	B+ = 87 - 89.9%	C+ = 77 - 79.9%	D+ = 67 - 69.9%	F < 60%
	B = 83 - 86.9%	C = 73 - 76.9%	D = 63 - 66.9%	
	B- = 80 - 82.9%	C- = 70 - 72.9%	D- = 60 - 62.9%	

Exams: The three exams are scheduled on February 17, March 23, and April 30. The exams will begin promptly at 10:30 am. You will have until 12:00 pm to complete the exams. **No makeup exams will be given. Requests to be excused from an exam must be made before the exam and will be granted at Dr. Smith's discretion.** Missing an exam without being excused will result in a grade of zero for that exam. This zero grade cannot be replaced.

Final Exam: The final exam is a comprehensive, multiple choice exam. If your score on the Final Exam is higher than any of your other exam scores during the semester (including excused exams but excluded unexcused zero grades), then your final exam score will replace your lowest exam score.

Homework: You have five attempts, without penalty, to get each question correct. However, you must complete each assignment before the deadline. Homework deadlines are on the Smartwork site. Late submissions will not be accepted under any circumstances.

Laboratory: You must wear sleeved shirts and pants (or skirts long enough to cover your knees), close-toed shoes, and a pair of approved splash goggles at all times in lab. You will not be allowed to conduct the lab without these personal protective attire.

Attendance and Make-Up Policy:

- Attendance at all class meetings is required. I will not give you a personal tutoring session for classes that you choose to miss.
- If you are unable to attend class or will miss an exam due to a foreseeable circumstance (e.g. athletic competition, field trip, etc.) make arrangements with your instructor at least one week in advance.
- Excused absences and alternate arrangements are only made by the instructor.
- A grade of zero will be recorded for any work (homework, lab, exam) missed due to an unexcused absence.
- Late homework will not be accepted for any reason as these are online submissions.

Accessibility Statement: Westminster College actively strives for the full inclusion of all our students. Students with disabilities who require access solutions for environmental or curricular barriers should contact Corey Shaw, Director of Disability Resources, located in 209 Thompson-Clark Hall. (e-mail: shawcj@westminster.edu; phone: 724.946.7192)

Academic Integrity: Details of the Westminster College Academic Integrity Policy (AIP) can be found in the *Westminster College Undergraduate Catalog*. Violations of the AIP include cheating, misconduct, plagiarism, and providing false information (including experimental results). Academic dishonesty will not be tolerated. The first citation of academic dishonesty will result in a grade of zero for the specific assignment. The second citation will result in a failing grade for the course. All citations of academic dishonesty will be reported to the Dean of the College, in accordance with college policy.

Student Expectations:

- Read and consider the assigned material prior to class.
- Bring your text, the necessary handouts, a pencil, and a calculator to every class meeting.
- Participate in classroom discussion and team assignments.
- Complete all assignments on time.
- Write down your questions and bring them to class, or send your instructor an e-mail message.
- **It is expected that students spend a minimum of 2 hours outside of class for every hour spent in class!**

Additional Help: Chemistry 261 proceeds at a very quick pace. Keep up with the material! For additional help, come see me (stop by my office or make an appointment), attend help sessions, and/or contact the Learning Center (x6700).

Monday	Wednesday	Friday
	1/18 Atoms and Periodicity	1/20 Atoms and Periodicity
1/23 Bonding, Structures, and Charge Lab: Intro to Notebook and Chemical Information	1/25 Bonding, Structures, and Charge Lab: Intro to Notebook and Chemical Information	1/27 Bonding, Structures, and Charge
1/30 Molecular Shapes and Properties Lab: Melting Points	2/1 Molecular Shapes and Properties Lab: Melting Points	2/3 Molecular Shapes and Properties
2/6 Acidity and Basicity Lab: IR Spectroscopy and Functional Groups	2/8 Acidity and Basicity Lab: IR Spectroscopy and Functional Groups	2/10 Acidity and Basicity
2/13 Alkanes and Alkyl Halides Lab: Recystallization	2/15 Alkanes and Alkyl Halides Lab: Recrystallization	2/17 Exam #1
2/20 Cycloalkanes Lab: Distillation	2/22 Cycloalkanes Lab: Distillation	2/24 Cycloalkanes
2/27 Stereochemistry Lab: Distillation continued and Extraction of Caffeine	2/29 Stereochemistry Lab: Distillation continued and Extraction of Caffeine	3/2 Stereochemistry
3/5 Spring Break	3/7 Spring Break	3/9 Spring Break
3/12 Spectroscopy and Spectrometry Lab: Extraction of Caffeine continued	3/14 Spectroscopy and Spectrometry Lab: Extraction of Caffeine continued	3/16 Spectroscopy and Spectrometry
3/19 Alkenes and Alkynes Lab: Molecular Modeling	3/21 Alkenes and Alkynes Lab: Molecular Modeling	3/23 Exam #2
3/26 Aromaticity, Arenes, and DNA Lab: C-NMR Analysis	3/28 Aromaticity, Arenes, and DNA Lab: C-NMR Analysis	3/30 Aromaticity, Arenes, and DNA
4/2 Alcohols, Phenols, Thiols, and Ethers Lab: Analysis of Natural Prioduct	4/4 Alcohols, Phenols, Thiols, and Ethers Lab: Analysis of Natural Product	4/6 Easter Break
4/10 Monday Classes meet on Tuesday Lab: Acid-Base-Neutral Extractions	4/11 Alcohols, Phenols, Thiols, and Ethers Lab: Acid-Base-Neutral Extractions	4/13 Amines and Selected Vitamins
4/16 Amines and Selected Vitamins Lab: Acid-Base-Neutral Extractions continued	4/18 Aldehydes, Ketones, and Carbohydrates Lab: Acid-Base-Neutral Extractions continued	4/20 Aldehydes, Ketones, and Carbohydrates
4/23 Carboxylic Acids Lab: NO LAB	4/25 Attend URAC Lab: NO LAB	4/27 Carboxylic Acids
4/30 Exams #3 Lab: Organic Oxidations	5/2 Carboxylic Derivatives, Lipids, and Proteins Lab: Organic Oxidations	5/4 Carboxylic Derivatives, Lipids, and Proteins

Final Exam is on Thursday, May 10 from 3:00 - 5:30 pm
*Monday classes meet on Tuesday, April 10

Unforeseen circumstances may require rearrangement of the schedule. Changes to deadlines will be announced in class and posted on the course my.westminster page.