SYLLABUS – UNIQUE #5 50445/50570

Organic Chemistry, Part I (Fall 2018)  CH320/328M

I. COURSE INSTRUCTION AND MENTORSHIP

Course Time  Tue., Thur. 9:30-11:00 am
Course Location  JES A121A
Course Instructor  Prof. Zachariah (Zak) A. Page
Office Hours  Wed., 9-11 am, WEL 4.132B (old library)
Email Address  zpage@cm.utexas.edu
Teaching Assistants (TA)  Axel Steinbrueck (axel.steinbrueck@utexas.edu)
Julie Alaniz (julie.alaniz4@utexas.edu)
Yuk Ming (Mike) Siu (yukmingsiu@utexas.edu)
Eshan Sayani (eshan11@utexas.edu)
TA Office Hours  Fri., 1-2 pm, WEL 4.132B (old library)
                 Tue., 11:30-12:30, WEL 4.132B (old library)
TA Recitation Sessions  Mon., 5-6 pm, WEL 2.122 (convocation center)
                     Sat., 11 am-12 pm, WEL 2.122 (convocation center)
                     Mon., 7-8:30, WEL 2.122 (convocation center) – catch up
Canvas  Homework assignments & answer keys (Files folder)
        Reading Assessments (Assignments folder)
        Questions (Discussion Board section)
        Electronic class notes (Files folder)
        Exam and quiz answer keys (Files folder)

II. COURSE MATERIALS

                              eBook: Go through Modules folder on canvas
OWLv2 (Required)  Reading Assessments due before each class (Assignments folder on Canvas)
Squarecap App (Required)  https://www.squarecap.com/
Molecular Models  Molecular Visions Molecular Model Kit #1 by Darling Models

III. PREREQUISITES

For CH320M  Chemistry 302 or 302H with a grade of at least C-, and credit or registration for Chemistry 204 or 317
For CH328M  Chemistry 302 and either Chemistry 204 or 317 with a grade of at least C- in each, and credit or registration for Chemistry 118K
IV. COURSE OVERVIEW

This course introduces organic (carbon-containing) materials by providing a basic understanding of traditional structures and properties and illustrating how this knowledge can be used to predict chemical reactivity. Students will learn about the importance of electrons with how their (1) role in bond formation leads to intricate three dimensional structures, (2) distribution dictates various physical properties and reactivity, and (3) redistribution during a reaction causes the formation of new molecules. The course will conclude with learning how to characterize chemical compounds using common analytical techniques.

V. COURSE OUTLINE

Chapter 1  Molecular Structure and Bonding  
(Aug 30th/Sept 4th)

Chapter 2  Alkanes  
(Sept 4th/6th)

Chapter 3  Stereochemistry  
(Sept 11th/13th)

Chapter 4  Acids and Bases  
(Sept 18th/20th)

Chapter 5  Alkene Structure  
(Sept 26th/25th)

Chapter 6  Alkene Reactions  
(Oct 2nd/4th)

Chapter 7  Alkyne Reactions  
(Oct 9th/11th)

Chapter 8  Haloalkanes  
(Oct 16th-23rd)

Chapter 9  Nucleophilic Substitution/Elimination Reactions  
(Oct 30th-Nov 6th)

Chapter 10  Alcohols  
(Nov 8th/13th)

Chapter 11  Ethers, Epoxides, and Sulfides  
(Nov 20th/27th)

Chapter 12  Infrared Spectroscopy  
(Nov 29th)

Chapter 13  Nuclear Magnetic Resonance Spectroscopy  
(Dec 4th/6th)
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**Exams Topics**
- Midterm Exam I: Chapters 1 – 5
- Midterm Exam II: Chapters 6 – 8
- Midterm Exam III: Chapters 9 – 10
- Final Exam: Chapters 1 – 13

**Exam Review Sessions**
- Midterm Exam I: 7-9 pm, Tuesday, Sept. 25th, 2018, WEL 2.122
- Midterm Exam II: 7-9 pm, Tuesday, Oct. 23rd, 2018, WEL 2.122
- Midterm Exam III: 7-9 pm, Tuesday, Nov. 13th, 2018, WEL 2.122
- Final Exam: 7-9 pm, Tuesday, Dec. 11th, 2018, WEL 2.122

**VI. EXAMS, HOMEWORK, AND COURSE GRADING**

**Exams**
- **Midterm exams**
  - Exam I: 7-9 pm, Thur., Sept. 27th, 2018, room #JES A121A/UTC 2.102A
  - Exam II: 7-9 pm, Thur., Oct. 25th, 2018, room # JES A121A/UTC 2.102A
  - Exam III: 7-9 pm, Thur., Nov. 15th, 2018, room # JES A121A/UTC 2.102A
- **Final exam**
  - 9 am-12 pm, Thur., December 13th, 2018, room #TBD

**The “curve”**
Raw exam scores converted to Standard T-Scores:

\[ T = \left( \frac{x - \mu}{\sigma} \right) \times 10 + 75 \]

\( x = \) your raw score; \( \mu = \) class mean score = \( \frac{\sum x}{N} \); \( N = \# \) of tests; \( \sigma = \) standard deviation = \( \sqrt{\frac{\sum(x - \mu)^2}{N-1}} \)

**Course Grading**
- Midterm exams – 40% (the lowest midterm score will be replaced by the final exam score, if the final exam score is higher; T-score used for grading unless percentage score is higher)
- Final exam – 40% (T-score used for grading unless percentage score is higher)
- Homework – 10% (turn in at the beginning of each Tue. lecture)
- Reading Assessments – 5% *(OWLv2)*
- Attendance / Participation – 5% *(Squarecap – 10% of the questions are graded for correctness and the other 90% on participation)*

**Letter grades**
- \( A \geq 93.0 \)  \( 93.0 > A- \geq 90.0 \)  \( 90.0 > B+ \geq 87.0 \)  \( 87.0 > B \geq 83.0 \)
- \( 83.0 > B- \geq 80.0 \)  \( 80.0 > C+ \geq 77.0 \)  \( 77.0 > C \geq 70.0 \)
- \( 70.0 > D \geq 60.0 \)  \( F < 60.0 \)

**VII. SECTION CHANGES, ADDS, DROPS, AND WITHDRAWALS**

- **September 4**  Last day of the official add/drop period
- **September 14**  Last day to drop the class without possible academic penalty
- **October 26**  Last day to drop a class with the dean’s approval
- **December 10**  Last day to use One-Time Exception Q-Drop
VIII. Students with Disabilities

The rights of students with disabilities are protected under Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act, which are civil rights provisions aimed at ending discrimination against persons with disabilities. Section 504 specifically refers to postsecondary and vocational education services. The Services for Students with Disabilities office of the Student Dean's Office is charged with assisting disabled students. We will provide any necessary and reasonable accommodation for students with disabilities. In order to qualify for accommodations, you will need to contact the Division of Diversity and Community Engagement, Services for Students with Disabilities, 471-6259, http://www.utexas.edu/diversity/ddce/ssd/. They will supply the documentation and recommendations needed for us to provide appropriate exam accommodations. This documentation must be provided prior to the first midterm exam. Because we administer night midterm exams, students requiring extra time must be prepared to either come earlier or stay later than other students on exam nights.

IX. Counseling and Mental Health Center

The Counseling and Mental Health Center (CMHC) provides counseling, psychiatric, consultation, and prevention services that facilitate students' academic and life goals and enhance their personal growth and well-being. https://cmhc.utexas.edu/

X. Absences Due to Athletics or Other University Activities

Any athlete competing for UT on an NCAA or club level team needs to notify me as soon as possible about any missed exams. Written documentation from the Athletic department will be required for accommodations to be given. An official team proctor must be provided to traveling team members by the athletic department, so that a copy of the exam can be administered outside of Austin at the same time as the students are taking the exam here. The sealed exam is then returned to me by the proctor, as soon as the team returns to Austin.

XI. Religious Holy Days

A student who misses classes or other required activities, including examinations, for the observance of a religious holy day should inform me as far in advance of the absence as possible, so that arrangements can be made to complete an assignment or exam within a reasonable time after the absence. For reference, sections 51.911 and 51.925 of the Texas Education Code relate to absences by students and instructors for observance of religious holy days.