SYLLABUS – UNIQUE NUMBERS 49395/49505

Organic Chemistry, Part I (Fall 2019)

I. COURSE INSTRUCTION AND MENTORSHIP

Course Time  
Tue., Thur. 9:30-11:00 am

Course Location  
UTC 2.112A

Course Instructor  
Prof. Zachariah (Zak) A. Page  (zpage@cm.utexas.edu)

Office Hour (room)  
Thur. 11AM-12PM (WEL 4.132B)

TA Schedule (room)  
Teaching Assistants (TA)

Recitations:
Tue. 1-2 PM (RLM 5.104)  
Vincent Viviani (vincent.viviani@utexas.edu)
Wed. 7-8 PM (CPE 2.206)  
Alex Stafford (a-stafford@utexas.edu)
Thur. 6-7 PM (BUR 136)  
Andrei Popov (apopov@utexas.edu)

Office Hour:
Wed. 9-10 AM (BUR 134)  
Adrian Rylski (rylski@utexas.edu)
Wed. 2-3 PM (GAR 2.112)  
Kun-You Chung (chung.kunyou@utexas.edu)
Sat. 4-5 PM (PAR 201)  
Henry Cater (cater.henry@utexas.edu)

TUMS (Texas Undergraduate Mentoring System) for Organic Chemistry

Schedule (room)  
Mentor
Mon. 11 AM-12 PM (PAR 301)  
Samuel Lin (samuel1111aka@gmail.com)
Tue. 5-6 PM (BUR 208)  
Sam Burr (sameburr@gmail.com)
Wed. 1-2 PM (PHR 2.108)  
Alyssa Chamseddine (alyssac435@gmail.com)
Wed. 6-7 PM (RLP 0.122)  
Andrew Ta (andrewta@utexas.edu)
Thur. 2-3 PM (WAG 420)  
Dachey Lin (dachey007@gmail.com)
Thur. 7-8 PM (BUR 134)  
Ella Jiang (ellajiang@utexas.edu)
Fri. 12-1 PM (BUR 224)  
Eshan Sayani (eshan11@gmail.com)
Fri. 5-6 PM (BUR 208)  
Iñaki Sanz Guruchaga (isanz1999@gmail.com)
Sat. 10-11 AM (PAR 201)  
Jacob Sass (sass.jacob@utexas.edu)

Missed the Wave (reviewing old concepts to get caught up)
Mon. 6-8 PM (WEL 2.122)  
Chris Wight (wightchris@utexas.edu)

Canvas  
(http://canvas.utexas.edu/)  
Homework assignments & answer keys (Files folder)
Electronic Skeleton class notes (Files folder)
Exam and quiz answer keys (Files folder)
Questions (Discussion Board section)

II. COURSE MATERIALS

Course Text (eBook Required)  
eBook: Go through Modules folder on canvas

UT Instapoll (App Required)  
https://polls.la.utexas.edu/

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 chemical structures and properties, while illustrating how this knowledge can be used to predict reactivity. Students will learn about the importance of electrons with how their (1) role in bond formation leads to three dimensional structures, (2) distribution dictates 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 29th/Sept 3rd/5th)

Chapter 2  
Alkanes  
(Sept 10th/12th)

Chapter 3  
Stereochemistry  
(Sept 17th/19th/24th)

Chapter 5  
Alkene Structure  
(Sept 24th)

Chapter 4  
Acids and Bases  
(Oct 1st/3rd/8th)

Chapter 6  
Alkene Reactions  
(Sept 8th/10th/15th)

Chapter 7  
Alkyne Reactions  
(Oct 17th/22nd)

Chapter 8  
Haloalkanes  
(Oct 29th/31st)

Chapter 9  
Nucleophilic Substitution/Elimination Reactions  
(Nov 5th/7th/12th)

Chapter 10  
Alcohols  
(Nov 19th/21st)

Chapter 11  
Ethers, Epoxides, and Sulfides  
(Nov 26th/28th)
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Chapter 12  Infrared Spectroscopy
(Dec 3rd)

Chapter 13  Nuclear Magnetic Resonance Spectroscopy
(Dec 3rd/5th)

Exams Topics
Midterm Exam I: Chapters 1 – 3 & 5
Midterm Exam II: Chapters 4, 6, 7
Midterm Exam III: Chapters 8 – 9
Final Exam: Chapters 1 – 13

Exam Review
Midterm Exam I Review: 7-9 pm, Tuesday, Sept. 24th, 2018, WEL 2.122
Midterm Exam II Review: 7-9 pm, Tuesday, Oct. 22nd, 2018, WEL 2.122
Midterm Exam III Review: 7-9 pm, Tuesday, Nov. 12th, 2018, WEL 2.122
Final Exam Review: 7-9 pm, Thursday, Dec. 12th, 2018, WEL 2.122

VI. EXAMS, HOMEWORK, AND COURSE GRADING

Exams
Midterm Exams
Exam I: 7-9 pm, Thur., Sept. 26th, 2019, see below for room
Exam II: 7-9 pm, Thur., Oct. 24th, 2019, see below for room
Exam III: 7-9 pm, Thur., Nov. 14th, 2019, see below for room

Testing Location for Midterms
First letter of your last name is:
(A-H): JES A121A
(I-O): WCH 1.120
(P-Z): UTC 2.102A

Final Exam 7-10 pm, Sat., December 14th, 2019, room # TBD

Point Adjustment
Scores will be shifted to provide a mean of 78 on the exams:

\[ T = \left( \frac{x - \mu}{\sigma} \times 10 \right) + 78 \]

\( x \) = 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 – 48% (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 the original score is higher)
Final exam – 35% (T-score used for grading unless the original score is higher)
Homework – 10% (turn in at the beginning of each Tue. lecture)
Attendance / Participation – 7% (UT Instapoll – 20% of the questions are graded for correctness and the other 80% on participation)
Letter grades (there is NO rounding; an 89.9999 is a B+)

\[ \begin{align*}
A & \geq 93.0 \\
93.0 > A- & \geq 90.0 \\
90.0 > B+ & \geq 87.0 \\
87.0 > B & \geq 83.0 \\
83.0 > B- & \geq 80.0 \\
80.0 > C+ & \geq 77.0 \\
77.0 > C & \geq 70.0 \\
70.0 > D & \geq 60.0 \\
F & < 60.0
\end{align*} \]
VII. OPTIONAL SUPPORT MATERIAL
Khan Academy  https://www.khanacademy.org/
YouTube  The OChem Tutor: https://www.youtube.com/channel/UCEWpbFLzoYGPfuWUMFPSaoA
Mastering OChem  https://www.masterorganicchemistry.com/

VIII. SECTION CHANGES, ADDS, DROPS, AND WITHDRAWALS
September 3  Last day of the official add/drop period
September 13  Last day to drop the class without possible academic penalty
October 31  Last day to drop a class with the dean’s approval (Q-drop)
December 9  Last day to use One-Time Exception (OTE Q-Drop)

XI. STUDENTS WITH DISABILITIES
Students with SSD accommodations can sign up to take their chemistry exams with the Student Services Office by following this link: https://cm.utexas.edu/academics/undergraduate/testing-services. 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.

X. 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/
XI. 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.

XII. 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.