



Course CHEM 2323.501 Organic Chemistry I
Professor Dr. Nimanka Pathum Panapitiya
Term Fall 2024
Meetings T/R 5.30-6.45 PM, ECSW 1.315

Professor's Contact Information

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Office Hours TBA BE 3.330

General Course Information

Pre-requisites, Co-requisites, & other restrictions	CHEM 1312 General Chemistry II
Course Description	<p>This course is designed to provide a unified overview of fundamental organic chemistry for science majors. Students who successfully complete this course acquire an integrated understanding of molecular architecture, molecular transformations, reaction energetics and mechanisms, synthetic strategy, and structure determination.</p> <p>Tests will be given at the date and time given in the syllabus. No make-up tests will be given. You may drop one test score. There will in addition be quizzes at the end of class time on the Thursdays indicated by the syllabus. One quiz may also be dropped.</p> <p>Students often view organic chemistry as a difficult course. I strongly recommend that everyone attempt to keep up with the class as it proceeds. This is not a course where it is easy to 'cram' for a test. Students invariably do better once they learn how to visualize organic molecules, and reactions, in three dimensions. If you know this is hard for you I recommend using molecular models to try and view the molecules. Also try to realize that this is not a memorization course. While some memorization is unavoidable in learning anything new, the purpose of this course is to teach the underlying basic principles that drive an organic reaction. Once these principles are handled a student will be able to understand, and predict, why any reaction occurs.</p> <p>The test and quiz answers will be posted on eLearning.</p>
Learning Outcomes	<p>Upon completing this class, students will:</p> <ul style="list-style-type: none">• Be able to predict bonding and three-dimensional structure, including chirality, and to analyze properties of this 3-D structure of organic compounds.• Be able to compare reactivity amongst a series of organic compounds.• Be able to predict reactivity of specific functional groups and to construct simple and efficient routes for the preparation of desired organic compounds.
Required Texts & Materials	L.G. Wade, Jr., "Organic Chemistry", 9th edition, 2017
Recommended Materials	<p>Molecular model kit</p> <p>Follow https://ochemrank.com/ to practice more ranking questions.</p>

Assignments & Academic Calendar

[Topics, Reading Assignments, Due Dates, Exam Dates]

Date		Topic	Chapter	Quiz
Aug 20	22	Introduction	1	N
27	29	Introduction, Structure and Bonding	1, 2	N
Sep 3	5	Structure and Bonding, Alkanes	2,3	N
10	12	Alkanes, Stereochemistry	3	Y(Quiz 1)
17	19	Stereochemistry	5	N
24		Review		N
Sep 25 (Wed)		Test 1 - Chapters 1, 2, 3 and 5 (8:30 pm -10 pm)		
	26	Chemical Reactions	4	N
Oct 1	3	Chemical reactions, Nucleophilic Substitutions (S _N 2)	4,6	N
8	10	Nucleophilic Substitutions (S _N 2, S _N 1)	6	N
15	17	Nucleophilic Substitutions and Elimination Reactions (S _N 1/E1/E2), Alkenes	6, 7	Y(Q2)
22		Review		
Oct 23 (Wed)		Test 2 - Chapters 4, 6 and 7 (8:30 pm -10 pm)		
	24	Reactions of Alkenes	8	N
29	31	Reactions of Alkenes	8	Y(Q3)
Nov 5	7	Reactions of Alkynes	9	N
12	14	Reactions of Alkynes /Alcohols	9	Y(Q4)
19	21	Alcohols, Review	10	N
Dec 3	5	Review		
		FINAL TBA (Chapters 1 to 10)		

Course Policies

<p>Grading (credit) Criteria</p>	<p>Grades will be determined from a combination of 4 quizzes, 2 exams, and a final exam. The lowest exam grade will be substituted with the final exam grade (by percentage).</p> <table border="0" style="width: 100%;"> <tr> <td>Tests</td> <td>2 x 250</td> <td>500 points</td> </tr> <tr> <td>Quizzes</td> <td>4 x 50</td> <td>200 points</td> </tr> <tr> <td>Final Test</td> <td>1x300</td> <td>300 points</td> </tr> <tr> <td>Total</td> <td></td> <td>1000 points</td> </tr> </table> <table border="1" style="width: 100%; margin-top: 5px;"> <tr> <td style="width: 25%;">900 – 1000 = A+</td> <td style="width: 25%;">700 – 759 = B+</td> <td style="width: 25%;">550 – 599 = C+</td> <td style="width: 25%;">400 – 449 = D+</td> </tr> <tr> <td>800 – 899 = A</td> <td>650 – 699 = B</td> <td>500 – 549 = C</td> <td>350 – 399 = D</td> </tr> <tr> <td>760 – 799 = A-</td> <td>600 – 649 = B-</td> <td>450 – 499 = C-</td> <td><350 = F</td> </tr> </table>	Tests	2 x 250	500 points	Quizzes	4 x 50	200 points	Final Test	1x300	300 points	Total		1000 points	900 – 1000 = A+	700 – 759 = B+	550 – 599 = C+	400 – 449 = D+	800 – 899 = A	650 – 699 = B	500 – 549 = C	350 – 399 = D	760 – 799 = A-	600 – 649 = B-	450 – 499 = C-	<350 = F
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<p>Make-up Exams</p>	<p>There are no make-up exams or quizzes. If a student misses either an exam or quiz then that missed grade will be counted as their dropped exam/quiz.</p>																								
<p>Class Information</p>	<p>Quizzes are given in the first 30 minutes of class or will be specified by the instructor. Tests are given outside class time on the days listed in the syllabus. Attendance will be taken at all tests, be sure to bring your Comet Card. All re-grades for tests and quizzes must be turned in within one week of taking the quiz or test. Keys for tests will be posted in eLearning. Practice quizzes and tests will be placed in e-learning approximately one week before the actual quiz or test. Video or audio recording of the lectures is not allowed.</p>																								
<p>Chemistry Clinic</p>	<p>Chemistry Clinic offers in-person office hours Monday through Friday and it is located in the Berkner building. Students can walk in and attend office hours offered by chemistry clinic leaders, graduate TAs and faculty. Room: BE 2.410 Hours: Monday - Friday 9.00 am - 6.00 pm For more information: https://chemistry.utdallas.edu/chemclinic/</p>																								
<p>Peer Led Team Learning (PLTL)</p>	<p>What is PLTL?</p> <ul style="list-style-type: none"> • Cohort-style academic support program for chemistry, math, and physics subjects. Sessions are designed to encourage problem-solving strategies in pairs and in groups. It is run through the Student Success Center. • Registration is required. • If you sign-up for a session, attendance is required every week. <p>More Details</p> <ul style="list-style-type: none"> • Visit the PLTL webpage and follow the Instructions for Registration in CourseBook (PDF) • Questions? Email PLTL@utdallas.edu 																								
<p>Supplemental Instruction (SI)</p>	<p>Supplemental Instruction (SI) is offered for this course. SI sessions are collaborative group study sessions, scheduled two times per week. Sessions are facilitated by</p>																								

	<p>an SI Leader, who has taken the course and received a high final grade. Attendance is voluntary. For information about the days, times, and locations for SI sessions, refer to http://www.utdallas.edu/studentsuccess/help-with-courses/supplemental-instruction/. www.utdallas.edu/studentsuccess/leaders/si.html.</p>
Tutoring	<p>Tutoring is available for organic chemistry through the Student Success Center. The center has drop-in times during the week for one-on-one tutoring. See the schedule for organic chemistry at www.utdallas.edu/studentsuccess/leaders/tutoring.html.</p>
University Policies	<p>For more University policies please see: UT Dallas Syllabus Policies and Procedures webpage</p>

These descriptions and timelines are subject to change at the discretion of the Professor.