



**Course** CHEM 2323.001 Organic Chemistry I  
**Professor** Dr. Sumudu Nelukshi Wijenayake  
**Term** Fall 2024  
**Meetings** T/R 8:30 - 9:45 am, SLC 2.303

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### Professor's Contact Information

**Office Phone** 972-883-2906  
**Office Location** BE 3.330  
**Email Address** Sumudu.wijenayake@utdallas.edu  
**Office Hours** Tue 10 -11 am, Fri 9-10 am in BE 3.330  
**Recitation** Friday 6:30-7:30 pm (via Bb Collaborate-will discuss posted recitation problems)  
**Lecture TA** Nitish Kumar Deo (nitishkumar.deo@utdallas.edu)  
**Lecture TA Office Hours** Mon 9-10 am, Fri 10 -11 am in BE 3.502

### General Course Information

<b>Pre-requisites, Co-requisites, &amp; other restrictions</b>	CHEM 1312 General Chemistry II
<b>Course Description</b>	<p>This course is designed to provide an overview of fundamental organic chemistry for science majors. Students who successfully complete this course will acquire an integrated understanding of molecular structure, molecular transformations, reaction energetics and mechanisms, synthetic strategy, and structure determination.</p> <p>Tests and quizzes are strictly individual assessments. For tests students will only use a periodic table, molecular model kit and pen/pencil and paper to work problems.</p> <p>This is not a course where you can 'cram' for an exam or skim over PP slides. Students do better once they learn how to visualize organic molecules in 3D. To this end, a molecular model kit is recommended to assist in this visualization. Organic chemistry is not a memorization course. While some memorization is necessary, the purpose of this course is to teach you the underlying principles that drive an organic reaction. Once these principles are understood a student will be able to predict the outcome of fundamental organic reactions.</p> <p><b>Before attending the lectures, everyone should</b>, read the posted class notes and browse through the book chapter being discussed. I also suggest that you watch the pre-recorded lectures.</p> <p><b>After each lecture</b>, work through recitation problems and practice test questions posted on eLearning. Also, do some problems from each chapter in the textbook.</p>
<b>Learning Outcomes</b>	<p>Upon completing this class, students will:</p> <ul style="list-style-type: none"><li>• Be able to predict bonding and three-dimensional structure, including chirality, and to analyze properties of this 3-D structure of organic compounds.</li><li>• Be able to compare reactivity amongst a series of organic compounds.</li><li>• Be able to predict reactivity of specific functional groups and to construct simple and efficient routes for the preparation of desired organic compounds.</li></ul>
<b>Required Texts &amp; Materials</b>	L.G. Wade, Jr., "Organic Chemistry", 9th edition, 2017
<b>Recommended Materials</b>	Molecular model kit, Free ranking app to practice ranking questions <a href="https://ochemrank.com/study?">https://ochemrank.com/study?</a>

## Assignments & Academic Calendar

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

Date		Topic	Chapter
<b>Aug 20</b>	22	Introduction	1
27	29	Introduction, Structure and Bonding	1, 2
<b>Sep 3</b>	5	Structure and Bonding, Alkanes	2,3
10	12	Alkanes, Stereochemistry	3
17	19	Stereochemistry	5
	<b>Sep 18</b>	<b>Quiz 1 (8:30 -9:00 pm)</b>	
24		Review	
	<b>Sep 25</b>	<b>Test 1 - Chapters 1, 2, 3 and 5 (8:30 -10 pm)</b>	
	26	Chemical Reactions	4
<b>Oct 1</b>	3	Chemical reactions, Nucleophilic Substitutions (S <sub>N</sub> 2)	4,6
8	10	Nucleophilic Substitutions (S <sub>N</sub> 2, S <sub>N</sub> 1,)	6
15	17	Nucleophilic Substitutions and Elimination Reactions (S <sub>N</sub> 1/E1/E2), Alkenes	6,7
	<b>Oct 16</b>	<b>Quiz 2 (8:30 -9:00 pm)</b>	
22		Review	
	<b>Oct 23</b>	<b>Test 2 - Chapters 4, 6 and 7 (8:30 -10 pm)</b>	
	<del>24</del>	Reactions of Alkenes	8
29	31	Reactions of Alkenes	8
<b>Nov 5</b>	7	Reactions of Alkynes	9
12	14	Reactions of Alkynes/Alcohols	9,10
	<b>Nov 20</b>	<b>Quiz 3 (8:30 -9:00 pm)</b>	
19	21	Alcohols, Review	10
	<b>Nov 27</b>	<b>Quiz 4 (8:30 -9:00 pm)</b>	
<b>Dec 3</b>	5	Review	
		<b>FINAL TBA (Chapters 1 to 10)</b>	

The tests will be in person and the quizzes will be online.

## Course Policies

Grading (credit) Criteria	<p>Grades will be determined from a combination of 4 quizzes, 2 tests, and a final exam. The lowest test grade can be substituted with the final exam (by percentage). The lowest quiz grade will be dropped and the grades of other three quizzes will be averaged.</p> <table><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><tr><td>900 – 1000 = A+</td><td>700 – 759 = B+</td><td>550 – 599 = C+</td><td>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>&lt;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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Make-up Exams	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.																								
Class Information	<p>Quizzes will be online, can be accessed through eLearning. You will have 30 minutes to complete the quiz after you started. The time window is <b>Wed 8:30-9:00 pm</b>, central time on the given days). Please note that if you miss the time, it will be considered as your drop quiz. These quizzes are designed to help you learn the material and these will assist you to do the tests well. The quizzes are open book. However, due to the limited time, you need to study the material and prepare well to do the quizzes well.</p> <p>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 at-least one week before the actual quiz or test. Video or audio recording of the lectures is not allowed.</p>																								
Chemistry Clinic	<p>Chemistry Clinic offers in-person office hours Monday through Friday and it is located in the Berkner building (BE). Students can walk in and attend office hours offered by undergraduate tutors, graduate TAs and faculty.</p> <p>Room: BE 3.502 Hours: Monday - Friday 9.00 am - 6.00 pm For more information: <a href="https://chemistry.utdallas.edu/chemclinic/">https://chemistry.utdallas.edu/chemclinic/</a></p>																								
Peer Led Team Learning (PLTL)	<p>What is PLTL?</p> <ul style="list-style-type: none"><li>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.</li><li>Registration is required.</li><li>If you sign-up for a session, attendance is required every week.</li></ul> <p>More Details</p>																								

	<ul style="list-style-type: none"> <li>• Visit the <a href="#">PLTL webpage</a> and follow the Instructions for <a href="#">Registration in CourseBook (PDF)</a></li> <li>• Questions? Email <a href="mailto:PLTL@utdallas.edu">PLTL@utdallas.edu</a></li> </ul>
<b>Supplemental Instruction (SI)</b>	<p>Supplemental Instruction (SI) is offered for this course.</p> <p>SI sessions are collaborative group study sessions, scheduled two times per week. Sessions are facilitated by 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 <a href="http://www.utdallas.edu/studentsuccess/help-with-courses/supplemental-instruction/">http://www.utdallas.edu/studentsuccess/help-with-courses/supplemental-instruction/</a>.  <a href="http://www.utdallas.edu/studentsuccess/leaders/si.html">www.utdallas.edu/studentsuccess/leaders/si.html</a>.</p>
<b>Tutoring</b>	<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 <a href="http://www.utdallas.edu/studentsuccess/leaders/tutoring.html">www.utdallas.edu/studentsuccess/leaders/tutoring.html</a>.</p>
<b>University Policies</b>	<p>For more University policies please see: <a href="#">UT Dallas Syllabus Policies and Procedures webpage</a></p>

### Other helpful student resources

<https://www.utdallas.edu/covid/students-families-info/student-resources>

How to manage procrastination <https://counseling.utdallas.edu/procrastination>

How to manage exam anxiety <https://counseling.utdallas.edu/testanxiety>

Stress management <https://counseling.utdallas.edu/stress>

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