DRAFT 5

CHEM 2323 Course Syllabus Spring 2025

Course	CHEM 2323.001 and .002
Course Title	Organic Chemistry 1
Professor	Bruce M. Novak
Term	Spring 2025 M/W 10:00 AM – 11:15 AM (.001) M/W 1:00 PM – 2:15 PM (.002) Both Sections meet in SLC 2.303

Professor's Contact Information

Office Phone	972-883-4070 (email communication is highly preferred)
Office Location	BE 3.516
Email Address	Bruce.Novak@UTDallas.edu
Office Hours	Monday 2:30 – 3:30 PM in BE 2.532 (group office hours) Wednesday 2:30 – 3:30 PM in BE 2.528 (group office hours) One-on-one meetings by appointment only in BE 3.516
Other Information	Course is rated ***R*** for language and graphic depictions of molecular violence

SI Leaders:
Raaed Zafar (.001 Section), Raaed.Zafar@UTDallas.edu

Cody Vu (.002 Section), Cody.Vu@UTDallas.edu

SI Leader	Section	Day	Time	Room
Raaed Zafar	.001	Monday	5:30 PM - 6:45 PM	MC 3.610
Raaed Zafar	.001	Wednesday	5:30 PM - 6:45 PM	MC 3.610
Cody Vu	.002	Monday	4:00 PM - 5:15 PM	MC 3.610
Cody Vu	.002	Wednesday	4:00 PM - 5:15 PM	MC 3.610

TA: Uma Nair, Uma.Nair@UTDallas.edu

Uma's Chemistry Clinic Tentative Tutoring Schedule:

Week Type	Day	Time	Room
Non-Exam Weeks	Tuesdays	9 AM to 12 PM 4-6 PM	TBD, for now online
	Thursdays	9 AM to 12 PM 3-5 PM	TBD, for now online
Exam Weeks	Mondays	4-6 PM	TBD, for now online
	Tuesdays	9 AM to 12 PM 4-6 PM	TBD, for now online

Course Modality and Expectations

Instructional Mode	In-class lectures (not recorded), Both Sections are held in SLC 2.303 Attendance is mandatory.
Course Platform	eLearning Course Page. Periodic Exam Review sessions and Exam Postmortems will be on BB Collaborate (all recordings will posted on eLearning).
Expectations	All course material can be downloaded as pdf files from eLearning. It is mandatory that you will read the course documents and do *all* of the posted homework sets. Recorded Exam Review Sessions and Recorded Exam Postmortems (in-depth explanation of each unit exam after each unit exam) posted on eLearning are also mandatory to view. Lecture attendance is mandatory.

General Course Information

Pre-requisites, Co-requisites, & other restrictions	Prerequisite: CHEM 1312 General Chemistry II
Course Description	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 architecture, molecular transformations, reaction energetics and mechanisms, and synthetic strategy. **Tests: Three 75-minute Tests** will be in-person given on the dates listed below. All exams are 7:00 – 8:15 PM on Wednesday evenings: **February 5th**, **March 5th**, and **April 9th**. Room assignments for each Test will be sent to your emails prior to the first exam. **A manila envelope, marked with your full name and section number, one must be brought with you to each of the three tests.** A point penalty could be assessed if you fail to bring in the pre-marked envelope.

	The final exam is cumulative and will be given during the week of **May 12 -16, 2025**. Further details to follow. **Exams are strictly individual assessments**. For exams, students may only use a periodic table, molecular model kit, organic stencils, and pen/pencil to work problems. No other external aids such as notes, lectures, the book, or the internet, can be used. **There are no makeup tests except for University excused absences.** In lieu of makeup tests, the Final Exam score will replace a missed exam (or the lowest exam score), *vide infra*. **Regrades:** Exams will be accepted for regrades after students view the key and preferably the online Exam Postmortems. Normally, the graded tests will be returned on the Monday of the week following the test. Online, recorded Exam Postmortems will be held the next day on the weekend after the exam. These Test Postmortems, and all review sessions, are mandatory and can be attended live or by viewing the recordings. During the Exam Postmortems, I will be doing a deep dive explaining how each problem is solved. This is an important learning opportunity because your Final Exam is cumulative. You have one week after the Exam Postmortem to return your exam for a regrade. When turning it in, please return it in its manila envelope and put a note on the front exam page directing me to the problems you want me to look at. Students often view organic chemistry as a difficult course but it's not, and in fact, it's a hell of a lot of fun. You need to keep up with the class as it proceeds and *you must practice drawing structures and reaction mechanisms during lecture and working out your homework problems*. Organic chemistry uses a hieroglyphic (pictorial) language to communicate and you must become, through practice, highly skilled at drawing to communicate fluently. Because of this, I do not use PowerPoints, and will be writing out the lectures, and your job is to follow along, and write down what I am writing. To learn organic chemistry requires dedication on the part of the student. This course traditionally does not reward the student who chooses to cram before the exams. You need to keep up with the material on a daily basis. Re-write your notes. Read the materials posted on the eLearning page. Do the problem sets I post. Seek help via office hours if a concept is causing difficulties. Re-read the lecture materials after we cover them to reinforce the concepts. Also, remember this is not a memorization course. The course instead favors the student who can apply the information learned to a new example. That being said, some memorization is required (flashcards can be quite helpful), but merely memorizing a certain reaction will only allow you to see a very small part of organic chemistry. Reaction mechanisms (the step-by-step conversion of starting materials to products) will be heavily emphasized. Understanding mechanisms, the why's and how's reactions occur, will enable you to see the bigger picture and provide you the power of predictability. Before attending the lectures, everyone should, 1) read the chapter materials posted on eLearning, and 2) with this knowledge, try working through the homework problems posted on eLearning.

	Group Office Hours 2:30 – 3:30 on Mondays in BE 2.532, and Wednesdays in BE 2.528. Office Hours are generally run as group problem solving sessions. Even if you do not have specific questions, please come and listen to other students questions and subsequent answers. This will greatly help your understanding of course topics. In the absence of specific questions, I will just start making up questions for the attendees to do. The problems and their solutions we work on will be made available to everyone.
Learning Outcomes	Upon completing this class, students will: • 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 write out the mechanisms (the detailed, step-by-step process of converting starting materials to products) of organic reactions. • Be able to predict reactivity of specific functional groups and to construct simple and efficient routes for the preparation of desired organic compounds.
Required Materials	I write my own materials, many students rarely use a book. Hence, if you purchase one, look for used or older editions. The important content material and other supplementary materials can be downloaded as pdf files from eLearning. **Three manila envelopes, marked with your full name and section number, one to be brought with you to each of the three exams.** A point penalty will be assessed if you fail to bring in the pre-marked envelope.
Recommended Materials	L.G. Wade, Jr., "Organic Chemistry", ninth edition. Actually, editions 6-8 are fine. Molecular model kit, Organic drawing stencils and plenty of paper and sharp pencils.
PLTL Program	Peer-Led Team Learning (PLTL) is a program designed to provide an active learning experience in which students can gain the skills and confidence to be successful learners in Organic Chemistry and other historically difficult courses. In weekly eighty-minute PLTL sessions, small groups of students will work together to solve problems written by faculty members. An undergraduate PLTL leader who is trained in group facilitation and has mastery of course content will lead them. This is an optional component of the course, however, if you choose to participate, you are expected to stay in the program throughout the semester. You can learn more about PLTL at the following link: https://www.utdallas.edu/studentsuccess/help-with-courses/peer-led-team-learning/. The tentative PLTL enrollment schedule is: **PLTL Spring 2025 Timeline** • **Lottery:** January 22 @ 12 PM – January 23 @ 10 AM • **Early Access Registration:** January 23 @ 12 PM • **Open Registration:** January 24 @ 12 PM • **Most sessions begin:** January 27 • **Last day to switch/drop:** February 21 • **Re-opening registration (open seats):** February 26 @ 12 PM – February 28 @ 12 PM • **First day of reopened sessions:** March 3 For more questions, you can email PLTL@utdallas.edu.

SI Program	Supplemental Instruction (SI) provides free, collaborative-group study sessions that follow the instruction of the course. SI sessions encourage active, collaborative learning based on critical thinking and transferable study skills. Sessions will directly reflect the content covered during the class sessions. Students will be enrolled in their SI Shell on eLearning during the first week of school. They will find access to the SI services under the My Organizations section on eLearning. Each course will have a shell and will be labeled based on the course name, i.e., "SI – CHEM 2323."
Organic Chemistry Clinic	The Organic Chemistry Clinic is staffed with tutors that are available to help with the course material. The Organic Chemistry Clinic is held in BE 3.502, Monday-Friday, 9:00 AM to 6:00 PM. Your TA and tutor for this semester is Uma Nair, Uma.Nair@UTDallas.edu.

Lec	Date	Topic	Chapter	Test
1	1/22	Introduction and Review of Chemical Principles	1	No
2	1/27	Introduction and Review of Chemical Principles	1	No
3	1/29	Molecular Structure, Orbital Hybridization and Bonding	2	No
4	2/3	Molecular Structure, Orbital Hybridization and Bonding	2	No
5	2/5	Molecular Structure, Orbital Hybridization, and Bonding	2	No
	2/5	**Test 1: Wednesday evening, 7:00 – 8: 15 PM Rooms tbd**		**YES**
6	2/10	Functional Groups	2	No
7	2/12	Alkanes: Saturated Hydrocarbons	3	No
8	2/17	Alkanes, Cycloalkanes and Cyclic Conformations	3	No
9	2/19	Alkanes, Cycloalkanes and Cyclic Conformations	3	No
10	2/24	Stereochemistry	5	No
11	2/26	Stereochemistry	5	No
12	3/3	Stereochemistry	5	No
13	3/5	Chemical Reactions, Free Radical Halogenations	4	No
	3/5	**Test 2: Wednesday evening, 7:00 – 8:15 PM Rooms tbd**		**YES**
14	3/10	Chemical Reactions	4	No
15	3/12	Alkylhalides, Nucleophilic Substitutions (S_N2)	6.1-6.12	No
		Study Week, March 17 - 21, 2025		
16	3/24	Nucleophilic Substitutions (S_N2)		
17	3/26	Nucleophilic Substitutions (S_N2)	6.1-6.12	No
18	3/31	Substitutions and Eliminations (S_N1, E1 and E2)	6.13-6.21	No
19	4/2	Substitutions and Eliminations (S_N1, E1 and E2)	6.13-6.21	No
20	4/7	Alkenes	7, 8	No
21	4/9	Alkenes	7, 8	No
	4/9	**Test 3: Wednesday evening, 7:00 – 8:15 PM Rooms tbd**		**YES**
22	4/14	Alkenes	7, 8	No

23	4/16	Alkenes	7, 8	No
24	4/21	Alkenes	7, 8	No
25	4/23	Alkenes	7, 8	No
26	4/28	Alkenes	7, 8	No
27	4/30	Alkynes	9	No
28	5/5	Alkynes	9	No
29	5/7	Alcohols (Last day of class)	9	No
	Final Exam Week: May 12 - 16, day and rooms to be announced			**YES**

Course Policies

Grading (credit) Criteria	Grades will be determined from a combination of the three unit tests, and the final exam scores. The lowest test grade will be substituted by the final exam score, except in cases where an exam score has been zeroed due to academic dishonesty. Tests 3 x 100 300 points Final Exam 1 x 100 100 points Total 400 points 90.0 – 100 = A+ | 70.0 – 75.9 = B+ | 55.0 – 59.9 = C+ | 40.0 – 44.9 = D+ 80.0 – 89.9 = A | 65.0 – 69.9 = B | 50.0 – 54.9 = C | 35.0 – 39.9 = D 76.0 – 79.9 = A- | 60.0 – 64.9 = B- | 45.0 – 49.9 = C- | <35.0 = F
Comet Creed	*This creed was voted on by the UT Dallas student body in 2014. It is a standard that Comets choose to live by and encourage others to do the same:* *"As a Comet, I pledge honesty, integrity, and service in all that I do."*
Make-up Exams	**There are NO makeup exams except for University excused absences.** Missing an exam will be made up by substituting the final exam score for the missing score.
Academic Support Resources	*The information contained in the following link lists the University's academic support resources for all students.* *Please go to http://go.utdallas.edu/academic-support-resources.*
UT Dallas Syllabus Policies and Procedures	*The information contained in the following link constitutes the University's policies and procedures segment of the course syllabus.* *Please go to http://go.utdallas.edu/syllabus-policies for these policies.*

Class Participation and Attendance

Regular class participation is mandatory. Students who fail to participate in class regularly are inviting scholastic difficulty. Participation also includes engaging in group or other activities during class that solicit your feedback on homework assignments, readings, or materials covered in the lectures. Class participation is documented by faculty. Successful participation is defined as consistently adhering to University requirements, as presented in this syllabus. Failure to comply with these University requirements violates the Student Code of Conduct.

Class Recordings

Course lectures will not be recorded although online Exam Review sessions, Exam Postmortems, and online classes (in an emergency, campus closures, or inclement weather conditions) will be. These

recordings will be available in eLearning in the Recordings folder to all students registered for this class. Students are expected to follow appropriate University policies and maintain the security of passwords used to access recorded lectures. Unless the Office of Student AccessAbility has approved the student to record the instruction, students are expressly prohibited from recording any part of this course. Recordings may not be published, reproduced, or shared with those not in the class, or uploaded to other online environments except to implement an approved Office of Student AccessAbility accommodation. If the instructor or a UTD school/department/office plans any other uses for the recordings, consent of the students identifiable in the recordings is required prior to such use unless an exception is allowed by law. Failure to comply with these University requirements violates the Student Code of Conduct.

Comet Creed

This creed was voted on by the UT Dallas student body in 2014. It is a standard that Comets choose to live by and encourage others to do the same:

"As a Comet, I pledge honesty, integrity, and service in all that I do."

Academic Support Resources

The information contained in the following link lists the University's academic support resources for all students. Please go to Academic Support Resources webpage for these policies.

UT Dallas Syllabus Policies and Procedures

The information contained in the following link constitutes the University's policies and procedures segment of the course syllabus.

Please go to UT Dallas Syllabus Policies webpage for these policies.

The descriptions and timelines contained in this syllabus are subject to change at the discretion of the Professor.