

CEM 351 ORGANIC CHEMISTRY I FALL SEMESTER 2025

Lectures:	M, W, F 1:50 - 2:40 PM (Sections 01-04, 06, 08) Room 138, Chemistry Bldg.
Lecturer:	Professor Kevin D. Walker Phone: 353-1107 Room 208
Correspondence:	Email: lavrik@chemistry.msu.edu Please send emails to Prof. Walker about the course through Ms. Nancy Lavrik (Include 'CEM351 - Section #' (w/o quotes) in the subject line)
Office Hours:	Thursday 1:00-2:00 PM or by appointment on Thursdays http://www2.chemistry.msu.edu/courses/cem351/index.html Room 208, Chemistry Bldg.
Textbook:	Peter Vollhardt and Neil Schore Organic Chemistry, Structure and Function , 8 th Edition, Freeman 2022 Neil Schore Study Guide and Solutions Manual , 8 th Edition, Freeman 2022

The syllabus is also available online:

<<http://www2.chemistry.msu.edu/courses/cem351/FS25KDW/index.htm>>.

Any announcements, practice problems, and other information are available on the website.

Course Content: Chemistry 351 is the first part of a two-semester sequence covering the most common organic reactions involving certain types of organic compounds. You will learn how to name organic compounds, draw and understand their structures in 2- and 3-dimensions, and learn how chemical structure and reactivity (reactions) are interrelated.

Achieve (Macmillan Web-Based Learning): Throughout the semester, electronically graded homework will be assigned online.

[My Course - Organic Chemistry - Macmillan Learning Achieve](#)

Recitations: In signing up for this course, you have enrolled in a lecture and a recitation section. Recitation time will be devoted to working on problems and answering questions. **Quizzes** will be reviewed during recitation, and the section instructor will keep grade records. You **must** write your **correct student number** on every quiz to ensure your grades are correctly recorded.

Extra Credit

1) **Recitation Participation:** Attend the recitations, stay for the duration, and (in small groups) practice problems provided by the TA.

-- You will sign an attendance sheet at the end of each recitation (**SIGNATURES CHECKED**).

-- You will earn 1 point for each FULL recitation attended (**11 pts total**).

Highlighted are Quiz dates: Yellow. Holiday/Break: Green. Middle of Semester: Light Blue.

Week		Week	
Aug 25, 27, 29	Recitation Attendance (1 pt)	Oct 20, 22, 24	No Recitation Extra Credit
Sept 01, 03, 05	No Recitation Extra Credit	27, 29, 31	Recitation Attendance (1 pt), (Quiz 2)
08, 10, 12	Recitation Attendance (1 pt)	Nov 03, 05, 07	Recitation Attendance (1 pt)
15, 17, 19	Recitation Attendance (1 pt)	10, 12, 14	Recitation Attendance (1 pt)
22, 24, 26	Recitation Attendance (1 pt) (Quiz 1)	17, 19, 21	Recitation Attendance (1 pt)
Sept 29, Oct 01, 03	Recitation Attendance (1 pt)	24, 26, 28	Recitation Attendance (1 pt)
06, 08, 10	Recitation Attendance (1 pt)	Dec 01, 03, 05	Recitation Attendance (1 pt), (Quiz 3)
13, 15, 17	Recitation Attendance (1 pt)	08, 10, 12	MSU Final Exam Week: No Classes

*** Recitations begin Monday, August 25th***

<u>Dates</u>	<u>Chapter</u>	<u>Subjects</u>
Aug 25, 27, 29 (M, W, F)	1	Structure and Bonding in Organic Molecules
Sept 01, 03, 05 (M, W, F)	2	Structure and Reactivity: Acids/Bases; Functional Groups; Alkanes
Sep 08, 10, 12 (M, W, F)	2, 3, 4	Reactions of Alkanes (BDEs; Radical Halogenation; Reactivity)
Sep 15, 17, 19 (M, W, F)	3, 4	Alkanes and Cycloalkanes
Sep 22, 24, (M, W) Sep 26 (Fri)	4, 10	Cycloalkanes, Nuclear Magnetic Resonance Spectroscopy (Alkanes) Quiz 1 (Chap 1-4, 10)
Sept 29, Oct 01, 03 (M, W, F)	10, 5	Nuclear Magnetic Resonance Spectroscopy (Alkanes), Stereoisomers
Oct 06, 08, 10 (M, W, F)	5, 6	Stereoisomers, Properties and Reactions of Haloalkanes
Oct 13, 15, 17 (M, W, F)	6, 7	Further Reactions of Haloalkanes
Oct 20, 22, 24 (M, W, F)	7, 11	Alkenes (Sections: 11.1–11.3; 11.5–11.7, 11.11)
Oct 27, 29, 31 (M, W, Fri)	12	Reactions of Alkenes Quiz 2 (Chap 5, 6, 7, 11, 12, NMR)
Nov 03, 05, 07 (M, W, F)	11	Alkenes: NMR, Infrared Spectroscopy & Mass Spectrometry (Section 11.4, 11.8-11.10) (<i>Products of Alkene Reactions</i>)
Nov 17, 19, 21 (M, W, F)	13	Alkynes
Nov 24, 26, 28 (M, W, F)	13, 8	Hydroxy Functional Group: Alcohols
Nov 27, 29, Dec 01 (M, W, F)	8, 9	Reactions of Alcohols and the Chemistry of Ethers
Dec 01, 03, 05 (M, W, Fri)	9	NMR, IR, MS Spectroscopy of Alkyne Products, Alcohols and Ethers Quiz 3 (Chap 11, 13, 8, 9, NMR)
Final Exam: Wednesday, December 10, 5:45-7:45 PM Room 138, where we have lecture.		FINAL EXAM (Chap 1-13, NMR)

Chapter Sections

Chapter	Sections (Bold: Worked Examples)
Chapter 1	1.2-1.9, 1.10
Chapter 2	2.1-2.19, 2.10
Chapter 3	3.1-3.9, 3.11, 3.12
Chapter 4	4.1-4.6, 4.8
Chapter 5	5.1-5.8, 5.9
Chapter 6	6.1-6.10, 6.12
Chapter 7	7.1-7.8, 7.10
Chapter 8	8.7-8.7, 8.9
Chapter 9	9.1-9.9, 9.12
Chapter 10	10.1-10.9, 10.10
Chapter 11	11.1-11.11, 11.12
Chapter 12	12.1-12.13, 12.18
Chapter 13	13.1-13.9, 13.12

Policy on Returning Exams and Regrading:

- a) Quizzes can be obtained as high-resolution scanned PDF files on cemscores (https://login.msu.edu/?App=ATS_Shibboleth_IdP_Idm). You can print a copy for your records, but a copy will be maintained on cemscores.
- b) Regrade requests are directed at the TA, who will retrieve your quiz from cemscores, and **the entire quiz will be regraded/reviewed by me.**
- c) **Students are not to enter research labs to search for TAs** since potentially dangerous chemicals and equipment are always in the Chemistry Building.

Final Exam: The final (200 points) is all-inclusive. University rules stipulate that a course grade of 0.0 is given to students who do not take the final exam. Final exams will be kept on file until the middle of the following semester and can be checked via an appointment with the course coordinator. You can check your final exam score at CEMSCORE (https://login.msu.edu/?App=ATS_Shibboleth_IdP_Idm).

Grades: Your grade in this course will come from 6 quizzes, Achieve Online Homework, and the Final Exam. Extra credit opportunities are available.

Quiz Scores	$3 \times 50 = 150$ points
Achieve (Macmillan Online Homework)	200 points [total # correct]/[total number assigned] * 200) = score
Final Exam	$1 \times 200 = 200$ points
Total	550 points
Extra Credit (Recitation Attendance + Bonus Quiz)	13 points

Your course grade can be estimated from the following scale.

Total Points Earned	Grade
≥ 467	4.0
410 – 466	3.5
358 – 409	3.0
302 – 357	2.5
247 – 301	2.0
192 – 246	1.5
137 – 191	1.0
< 136	0.0

Policy on Missed Exams and Quizzes:

There will be **NO MAKEUPS for lecture** quizzes. If you have a verifiable MSU-sanctioned event and need to miss a quiz, we will prorate your quiz score (**See examples below**)

Examples showing how your missed or lowest quiz score is replaced by prorating your Final Exam score. See three scenarios below (these are examples only and do not reflect your score):

The allotments outlined below will not populate CEMSCORES, but will be used to tally your total score and course grade.

Student #1:

Quiz 1-46; Quiz 2-25; Quiz 3-40; Final Exam-160 out of 200

Quiz 2 has the lowest score at 25. 1/4 of the final exam is 50 points; therefore, 1/4 of Student #1's final exam score is 40.

Quiz-2 is now 40 points

Student #2:

Quiz 1-46; Quiz 2-missed; Quiz 3-40; Final Exam-160 out of 200

Quiz 2 was missed. 1/4 of the final exam is 50 points; therefore, 1/4 of Student #2's final exam score is 40.

Quiz-2 is now 40 points

Student #3: (you can miss up to 1 Quiz, the 2nd will be recorded as a 0)

Quiz 1-46; Quiz 2-missed; Quiz 3-missed; Final Exam-160 out of 200

Quizzes 2 and 3 were missed. 1/4 of the final exam is 50 points; therefore, 1/4 of Student #3's final exam score is 40.

Quiz-2 is now 40 points, but Quiz 3 remains 0.

Academic Honesty: University policies on the integrity of scholarship and grades will be strictly enforced. It is the responsibility of the students to ensure that they are familiar with these policies. Any students found violating these university policies will receive a failing grade. There are **NO exceptions**. In addition, a letter describing the incident will be sent to the Chair of the Chemistry Department and the Dean of the student's college.

Code of Behavior: You are encouraged to participate in class discussions. However, no one should disrupt the classroom teaching and learning environment.

Emergency Response: Please familiarize yourself with the location of the nearest evacuation route. In the event of an emergency in this classroom, building, or vicinity, I will inform you of the actions to take for your safety and an orderly evacuation. Typically, classes restart 20 minutes after the police (or emergency response leader) gives an all-clear.

Accommodations for Persons with Disabilities: Michigan State University is committed to providing **equal opportunities** for participation in all programs, services, and activities. Requests for accommodations by persons with disabilities may be made by contacting the Resource Center for Persons with Disabilities by phone at 517-884-RCPD or through the web at <https://www.rcpd.msu.edu/>. Once your eligibility for an accommodation has been determined, you will be issued a Verified Individual Services Accommodation ("VISA") form. Please present this form to Prof. Walker at the start of the semester and at least two weeks before the accommodation date (e.g., for a quiz, test, or final exam). Requests received after this date will be honored if possible.

Part of the MSU Mission Statement

- Michigan State University is committed to providing access and promoting/protecting freedom of speech in an inclusive learning environment. Discrimination and harassment based on a protected identity are prohibited. Please review MSU's [Notice of Non-Discrimination, Anti-Harassment, and Non-Retaliation](#).
- In this class, we will work together to create and maintain a respectful teaching and learning environment where we engage in conversations that challenge our perspectives and understanding.

Name and Pronoun Preference

All people have the right to be addressed and referred to by their requested identity. Please advise me of preferences early in the semester so that I may make appropriate changes to my records. Information on MSU's preferred name policy: ([Click here](#)).

Policy on Religious Observance

It is an MSU policy to permit students to observe holidays set aside by their chosen religious faith. <https://reg.msu.edu/ROInfo/Notices/ReligiousPolicy.aspx>

If you are absent from class on your religious holiday, please make arrangements with me in advance.

Grief Absence Policy

Please visit MSU Grief Absence Policy: <https://reg.msu.edu/ROInfo/Notices/GriefAbsence.aspx>

MSU - Mandatory Reporting Policy

As a professor, one of my responsibilities is to help create a safe learning environment for my students and the campus. As a member of the university community, I am responsible for reporting any sexual harassment, sexual violence, and other forms of prohibited discrimination reported to me.

If you instead want to share information about sexual harassment, sexual violence, or discrimination with a confidential employee who does not have this reporting responsibility, you can find a list of those individuals here: <https://caps.msu.edu/>