CEM 251: SECTIONS 730 – ORGANIC CHEMISTRY I
M, W 6:00 – 10:00 PM, SUMMER I – 2020

Instructor: Benjamin Appiagyei
Email: appiagy2@chemistry.msu.edu
Lecture: Monday and Wednesday 6:00 – 10:00 pm
Zoom link: https://msu.zoom.us/j/5849457446

Office hours: Tuesday 12:00—2:00 pm: https://msu.zoom.us/j/5849457446

Class Coordinator: Nancy Lavrik
Email: lavrik@chemistry.msu.edu

Text: W. H. Brown, B. L. Iverson, E. V. Anslyn, C. S. Foote
Organic Chemistry, 8th Edition, Cengage Learning

W. H. Brown, B. L. Iverson, E. V. Anslyn, C. S. Foote
Organic Chemistry, 8th Edition, Study Guide and Student Solutions Manual, Cengage Learning

Supplementary Materials: Problem sets would be made available at D2L throughout the course of the term. The questions in these problem sets are designed to give an idea of how quizzes and exams would be formulated.

Course Content: CEM 251 is the first part organic chemistry for the summer semester. This class would cover most important organic compounds and reactions with examples of biological and industrial processes involving organic chemistry. In this class we would learn how to draw, name, analyze and formulate organic compounds in two and three dimensions; count electron, bonds and charges; analyze NMR, IR and mass spec data to assign chemical structures; write reaction mechanisms using arrows to show reaction movements; etc. At the end of the class you are expected to be able to propose the syntheses of organic molecules based on tools of reactions acquired.

***Online*-examination and Grading**

***Mid-Term Examinations*:** There would be **one**, 1.5 hours online mid-term exams worth 100 pts. Note that there would be no make-up for mid-term exam. The scheduled times and dates to administer these online exams are as follow:

Midterm Exam 1	June 3	Chapters 1-6

Quizzes: Four 25 pts ***online*** quizzes will be given during the course of the term. These quizzes would be open for a limited and a one-time access. I will communicate with more details before each quiz is taken. *Note that there will be no make-up for quizzes.*

Quiz 1	May 18	Chapters 1-2
Quiz 2	May 27	Chapters 4-5
Quiz 3	June 10	Chapters 7 & 12-14
Quiz 4	June 17	Chapters 8-9

Final Examination: A 200 pts ***online*** final exams will be given on the last day of class, ***June 24 from 6:00 – 8:00 pm.*** It is the university requirement that you receive a 0.0 for the course if you do not take the final exam. If a mid-term exam is missed due to a well-documented extenuating circumstance, the final examination will be prorated to 300 pts. While this portion is available it is not recommended.

Grades: your grade in this course would be calculated based on the sum of the scores of the mid-term exams (100 pts), your four quizzes (100 pts total), OWL-mastery (50 pts), OWL End of Chapter problems (100 pts) and your 200-pts comprehensive final exam. Therefore, your grade in this course will be calculated out of 550 possible points.

Midterm Exam	100 pts
4 Quizzes	100 pts
Owl-Mastery problems	50 pts
Owl-End of Chapter (EOC) problems	100 pts
Final Exams	200 pts
Overall	**550 pts**

The following grade scale will be used (Total Points = 550)

Total points	Percent	Final Grade
495	90	4.0
440	80	3.5
385	70	3.0
330	60	2.5
275	50	2.0
245	45	1.5
220	40	1.0
<200	<40	0.0

There would be additional **extra points** through TopHat “Clicker” type questions during the synchronous lecture sessions.

Policy on Missed Exams: Ordinarily, there will be no make-ups for scheduled exams!

Policy on Returning Exams and Re-grading: Exams will be returned to your D2L account in a timely fashion. ***Any regrading requests must be made to the me (your lecturer). Note that regrading requests require review/regrading of the full exam, not just the point of contention.***

Policy on Academic Dishonesty: Any form of (or attempt at) academic dishonesty (examples: use of online resources, collaborating with others during quizzes and exams) is considered a violation of academic integrity and a violation of class policy. Any student found violating these policies will receive a ***0 in the course--NO exceptions***. It is the responsibility of all students to ensure that they are familiar with these policies. If such misconduct is found, an Academic Dishonesty Report will be submitted to the Chair of the Chemistry Department and to the Dean of the student's college. For more details on the University's academic integrity policy, please see: https://www.msu.edu/~ombud/academic-integrity/index.html

Special Assistance: Any students requiring special assistance must identify themselves to the instructor at the beginning of the semester.

ZOOM CLASS POLICIES AND SYSTSEMS

Zoom Classroom: As much as possible find a quiet place for all our class meetings and discussions. Try to avoid interruptions during the progress of the class as it's very easy to lose concentration during online lectures. In our first lecture, as you know this is a 4-hour class period so we will discuss if you would like to have a break (say 10-15 mins) in the middle of the class or not.
Asking Questions: As much as possible I would like you to unmute your microphones to ask questions verbally. Feel free to interrupt with questions anytime during the progress of the class. You may also use the chat option to write out your questions which I will address during the second half of the class (after the 10-15 mins break).

Classroom and Exams Response System
We would be using two education software systems to run this class: *1)* ***Top Hat*** would be used for submitting answers to in-class questions, quizzes and exams; so you should log in to your **Top Hat** account during lectures to answer in-class questions which may worth points *2)* ***Cengage*** would be used for your learning and acquiring proficiency with the tools and knowledge as we progress through the course. Cengage comes with the course textbook when you purchase your subscription. You would be assigned end of chapter (EOC) questions that would worth points. You are required to purchase these software systems if you don't have a subscription already (i.e. if you have already used these software systems in a previous class you don't need to repurchase it, the same login info would work for this class). Also, these software systems are incorporated into your D2L platform where you can access with your login info.

Top Hat (www.tophat.com)

You will be able to submit answers to in-class questions using Apple or Android smartphones and tablets, laptops, or through text message. You can visit the Top Hat Overview (https://success.tophat.com/s/article/Student-Top-Hat-Overview-and-Getting-Started-Guide) within the Top Hat Success Center which outlines how you will register for a Top Hat account, as well as providing a brief overview to get you up and running on the system.
An email invitation will be sent to you, but if you don't receive this email, you can register by simply visiting our course website: Unique Course URL: https://app.tophat.com/e/113121/
Note: our Course Join Code is 113121
Top Hat may require a paid subscription, and a full breakdown of all subscription options available can be found here: www.tophat.com/pricing. You would purchase it for $26. Should you require assistance with Top Hat at any time, due to the fact that they require specific user information to troubleshoot these issues, please contact their Support Team directly by way of email (support@tophat.com), the in app support button, or by calling 1-888-663-5491.

Cengage (www.cengage.com)

The materials required for this class—and any other classes using Cengage products—are included in ONE Cengage Unlimited subscription. For $119.99 per semester, you get access to ALL your Cengage online textbooks and access codes in ONE place. Four FREE hardcopy textbook rentals are also available for select titles for just $7.99 S&H each.

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- Title: Organic Chemistry, 8th Edition
- Author: William H. Brown; Brent L. Iverson; Eric Anslyn; Christopher S. Foote
- ISBN: 1-305-58035-4

Course Link: https://www.cengage.com/dashboard/#/course-confirmation/E-26R656J8B68JT/initial-course-confirmation
Course key: E-26R656J8B68JT

Registering

To access your course materials and explore Cengage Unlimited create your Cengage account or sign in to an existing one and follow the instructions to complete the registration process.

Need help? Visit **cengage.com/start-strong** for step-by-step registration instructions and videos.

Tentative Lecture and Exams Schedules:

Date	Topics	Chapters
May 11	Covalent Bonding and Shapes of Molecules	1
May 13	Alkanes and Cycloalkanes	2
May 18	Qui 1 Stereoisomerism and Chirality	3
May 20	Acids and Bases	4
May 25	Memorial Day (No Class)	---
May 27	Quiz 2 Alkanes: Bonding, Nomenclature and properties	5
June 1	Reactions of Alkenes	6
June 3	**Mid-term exams I**	1-6
June 8	Spectroscopy (IR, NMR, Mass spec.)	12-14
June 10	Quiz 3 Alkynes	7
June 15	Haloalkanes, Halogenation and Radical Reactions	8
June 17	Quiz 4 Nucleophilic substitution and β-elimination	9
June 22	Review session (including synthesis and problem solving)	---
June 24	**Final Exam**	**Cumulative**

SUGGESTED PRACTICE PROBLEMS FROM THE BOOK:
Please pay extra attention to the ***study guide and the problems*** at the end of each chapter. It is an **excellent** summary of the ideas, skills and/or reactions you need to know from each chapter. As you may know **learning organic chemistry is best achieved through working problems.** So, work through the ***in-chapter problem*** as you read, and work as many from chapter end problems as you can from the book, but at least the ones listed below. I will supplement these problem sets with handouts which would be made available online. The handouts problem sets and the book problems and are the best indication of how exam questions will be formulated. Here is a list of suggested problems from the end of each chapter.

Chapter 1: 1.20; 1.23-1.37; 1.41; 1.48; 1.51-1.52; 1.55-1.59; 1.64; 1.72; 1.74

Chapter 2: 2.16-2.23; 2.26-2.28; 2.34-2.35; 2.38

Chapter 3: 3.14; 3.16-3.18; 3.20; 3.25; 3.26-3.28; 3.30-3.31

Chapter 4: 4.9-4.14; 4.16-4.17; 4.26-4.29; 4.32-4.36; 4.41; 4.54

Chapter 5: 5.13-5.14; 5.16-5.23

Chapter 6: 6.15; 6.17-6.19; 6.21-6.24; 6.26; 6.29-6.30; 6.34-6.37; 6.40; 6.54

Chapter 7: 7.8; 7.10; 7.11; 7.17-7.18; 7.20-7.21; 7.23-7.25; 7.29-7.34

Chapter 8: 8.8-8.9

Chapter 9: 9.10; 9.12-9.13; 9.20; 9.22; 9.37-9.38; 9.47-9.49; 9.51; 9.54; 9.56-9.61

Chapter 12: 12.5-12.7; 12.11

Chapter 13: 13.9; 13.15 13.18

Chapter 14: 14.5; 14-9