COURSE SYLLABUS

CHEM 252– Organic Chemistry II

Self-Paced Course - Web Based Format Option

Session begins on the 1st day of enrollment month and ends on the last day of the 6th month

Instructor Information

Instructor Name: **[faculty member]**

Contact Information: For questions, comments, or concerns please contact the Self-Paced Degree Program office:

Telephone: 563-425-5200 or 1-800-553-4150

E-mail: selfpaced@uiu.edu

Address: Upper Iowa University, PO Box 1857, Fayette, IA 52142

Course Description

Semester Credits: 4 semester credits

Catalog Course Description: A continuation of CHEM 251, with emphasis on the chemistry of various functional groups; also provides an introduction to aromaticity and organic spectroscopic techniques. Laboratory correlates with lecture material and emphasizes methods of qualitative organic analysis.

Prerequisites: CHEM 251 (Organic Chemistry I)

Credit Hours: As a requirement of HLC Accreditation, all UIU courses, regardless of meeting schedule or instructional mode, follow the Federal Credit Hour Definition. As such, each credit hour earned at UIU is equivalent to a minimum of 45 hours of student engagement.

For more information on how specific instructional modes meet this requirement, please see *UIU's Policy Guidelines for Instructional Time Expectations:* UIU Policies.

Course Materials

It is the student's responsibility to make sure she/he has access to all required course materials by the start of the session.

Required Textbooks

Organic Chemistry: Principles and Mechanisms with Ebook, SmartWork, and Videos
Authors: Karty, Joel
Edition: 3RD 22
Publisher: W.W. Norton & Co.
ISBN-13: 978-0-393-87764-9
Format: Digital

Labster Laboratory Simulations
Format: Access Code

Recommended Resources

Organic Chemistry Solutions Manual - Access
Authors: Karty, Joel
Edition: 3RD 22
Publisher: W.W. Norton & Co.
ISBN-13: 978-0-393-87728-1
ISBN-10: 0-393-87728-0
Format: Access Code

UIU Tutor Center

- Email: tutorcenter@uiu.edu
- Phone: (563) 425-5272

UIU Academic Success

- Email: academicsuccess@uiu.edu
- Phone: (563) 425-5264

Ordering Textbooks

Purchase your textbook through the online university bookstore, BNC Virtual, or by phone at (800) 325-3252.

Course Outcomes

Upon completion of this course:

1. Given the starting materials, students will be able topredict the products of nucleophilic substitution and elimination reactions. Given the products of nucleophilic substitution and elimination reactions, students will be able to determine the appropriate starting materials. Students will used curved arrows to show the reaction mechanism in either case.
2. Students will be able to use elementary reaction mechanism steps and curved arrows to write overall mechanisms for electrophilic addition reactions of nonpolar pi bonds. Students will be able to use Markovnikov's Rule to predict the major product of such reactions.
3. Given the starting materials, students will be able to predict the products of electrophilic addition reactions of nonpolar pi bonds. Given the products of electrophilic addition reactions of nonpolar pi bonds, students will determine the appropriate starting materials.
4. Students will be able to define conjugation and aromaticity; identify conjugated and aromatic systems. Students will be able to use Huckel's Rule and Molecular Orbital Theory to explain the difference between aromatic and antiaromatic character.
5. Students will be able to understand the terminology associated with mass spectrometry (MS), Ultraviolet (UV) Spectroscopy, Infrared (IR) Spectroscopy, and Nuclear Magnetic Resonance (NMR) Spectroscopy. Interpret spectra originating from each technique. Students will be able to use spectroscopic and spectrometric methods to elucidate structures of organic compounds.
6. Students will be able to use elementary reaction mechanism steps and curved arrows to write overall mechanisms for the addition of both strong and weak nucleophiles to polar pi bonds.
7. Given the starting materials, students will be able to predict the products of nucleophilic addition to polar pi bonds. Given the products of nucleophilic addition to polar pi bonds, students will be able to determine the appropriate starting materials.
8. Students will be able to use elementary reaction mechanism steps and curved arrows to write overall mechanisms for nucleophilic addition-elimination reactions involving both strong and weak nucleophiles.
9. Given the starting materials, students will be able to predict the products of nucleophilic addition-elimination reactions. Given the products of nucleophilic addition-elimination reactions, students will be able to determine the appropriate starting materials.
10. Students will be able to use elementary reaction mechanism steps and curved arrows to write overall mechanisms for electrophilic aromatic substitution reactions of benzene and substituted aromatic compounds.
11. Given the starting materials, students will be able to predict the products of electrophilic aromatic substitution reactions. Given the products of electrophilic aromatic substitution reactions, students will be able to determine the appropriate starting materials.

12. Students will be able to understand the role of directing groups and activating/deactivating groups in electrophilic aromatic substitution reactions. Students will be able to predict the outcome of such reactions when these groups are present.
13. Students will be able to practice safe techniques in the laboratory, including synthesis, analysis, purification, characterization, measurement, waste disposal, and experimental design.

Course Requirements and Grading Criteria

Course Requirements

1. Review the **entire** course syllabus before beginning the course. Be sure you understand the course procedures and objectives. Procedures do change, so please review **ALL** requirements and policies even if this is not your first course including, but not limited to, administrative withdrawal. Your course status will be affected if policies are not followed.
2. Students who develop a regular time schedule and set goals for unit completion are most successful in completing courses within a specific timeframe.
3. The feedback you receive from the instructor of your work is **critical** to your success on subsequent lessons. These comments allow you to improve and modify the next units if necessary.
4. Assignments are submitted using uiuLearn. Please complete all assignments and modules in order.
5. If the information in your syllabus is not clear or if units are not graded within a reasonable period of time, please contact your instructor using uiuLearn's email tool, if that doesn't work contact the Self-Paced Program office. We would like the opportunity to address concerns; however, we may not know unless we hear from YOU!
6. ALWAYS keep a copy of your completed work when submitting it for grading.

Grading Criteria

Activity	Points
SmartWork homework assigments	50%
Unit Quizzes via SmartWork	25%

Activity	Points
Laboratory Simulations via Labster	25%

Grading Scale

Letter Grade	Percent	Letter Grade	Percent	Letter Grade	Percent
A	90-100	B-	80-81.99	D+	68-69.99
A-	*	C+	78-79.99	D	62-67.99
B+	88-89.99	C	72-77.99	D-	60-61.99
B	82-87.99	C-	70-71.99	F	0-59.99

* Grades of A- may be assigned to students with less than 90% at the instructor's discretion.

Grades and Feedback

This syllabus contains all assignments necessary for completing your self-paced course. Submit your completed assignments via uiuLearn.

If you need academic assistance with the course, please feel free to contact the Self-Paced Degree Program office.

To protect the integrity of the final assessment/exam, you only receive your final grade on the exam; you do not receive any feedback on the answers to the exam questions. The answers to the questions on the exam are not shared with students. Please remember to stay academically honest.

Turnitin

Turnitin is a tool for both teachers and students to ensure academic integrity by checking the originality of submitted papers to avoid issues of plagiarism and academic dishonesty. Students should be aware that Turnitin scans submitted work and compares it to ALL other sources on file.

Extension Policy

Students will be allowed to request an extension and receive an 'X' (extension grade) at the end of their original six-month enrollment period if:

- A minimum of one assignment has been received for grading per guidelines **AND**
- All course units and exams are not completed and submitted **OR**
- A course withdrawal has not been initiated.

Note: The fee for a self-paced extension is $99 per course. The request for an extension must be submitted no earlier than one month before the end of the course and no later than a week before the end of the course.

Extension grade details

- When the extension is granted and an "X" grade is issued, the student will receive a four-month enrollment period to complete the course.
- Students do not have the option to withdraw from a course after the initial six-month enrollment period.
- An 'X' grade posted to the student's official record will be replaced with a final letter grade; however, the extension will remain on the official transcript as a notation.
- If the course is not completed by the end of the extension period, the instructor will assign a final grade (A-F) based on work completed in relation to the total course requirements.
- If credit is not earned by the end of the extension period, students can re-enroll and repeat the entire course for credit.

Note: Students are not reported as enrolled during the extension period and are not eligible for student loan deferment. No more than one extension will be granted.

Course Schedule

Unit 1

Unit 1 lecture	E-book Chapters 10 and 11 and Lecture PowerPoints for Chapters 10 and 11 (See Content section, Unit 1 Lecture button)
Unit 1 Supplemental Learning Materials	Sixteen videos (see Content section, Unit 1 Supplemental Learning Activities button)

Unit 1 lecture	E-book Chapters 10 and 11 and Lecture PowerPoints for Chapters 10 and 11 (See Content section, Unit 1 Lecture button)
Unit 1 Graded Activities	SmartWork Chapters 10 and 11 (See Content section, Unit 1 Graded Activities button) One Labster Simulation (See Content section, Unit 1 Lab button) Unit 1 Quiz (See Content section, Unit 1 Graded Activities button)

Unit 2

Unit 2 lecture	E-book Chapters 12 and 13 and Lecture PowerPoints for Chapters 12 and 13 (See Content section, Unit 2 Lecture button)
Unit 2 Supplemental Learning Materials	Fifteen videos (see Content section, Unit 2 Supplemental Learning Activities button)
Unit 2 Graded Activities	SmartWork Chapters 12 and 13 (See Content section, Unit 2 Graded Activities button) Three Labster Simulations (See Content section, Unit 2 Lab button) Unit 2 Quiz (See Content section, Unit 2 Graded Activities button)

Unit 3

Unit 3 lecture	E-book Chapter 14 and Lecture PowerPoints for Chapter 14 (See Content section, Unit 3 Lecture button)
Unit 3 Supplemental Learning Materials	None
Unit 3 Graded Activities	SmartWork Chapter 14 (See Content section, Unit 3 Graded Activities button) One Labster Simulation (See Content section, Unit 3 Lab button) Unit 3 Quiz (See Content section, Unit 3 Graded Activities button)

Unit 4

Unit 4 lecture	E-book Chapters 15 and 16 and Lecture PowerPoints for Chapters 15 and 16 (See Content section, Unit 4 Lecture button)
Unit 4 Supplemental Learning Materials	Two videos (see Content section, Unit 4 Supplemental Learning Activities button)
Unit 4 Graded Activities	SmartWork Chapters 15 and 16 (See Content section, Unit 4 Graded Activities button)

Unit 4 lecture	E-book Chapters 15 and 16 and Lecture PowerPoints for Chapters 15 and 16 (See Content section, Unit 4 Lecture button)
	Two Labster Simulations (See Content section, Unit 4 Lab button) Unit 4 Quiz (See Content section, Unit 4 Graded Activities button)

Unit 5

Unit 5 lecture	E-book Chapter 17 and Lecture PowerPoints for Chapter 17 (See Content section, Unit 5 Lecture button)
Unit 5 Supplemental Learning Materials	Three videos (see Content section, Unit 5 Supplemental Learning Activities button)
Unit 5 Graded Activities	SmartWork Chapter 17 (See Content section, Unit 5 Graded Activities button) Two Labster Simulations (See Content section, Unit 5 Lab button) Unit 5 Quiz (See Content section, Unit 5 Graded Activities button)

Unit 6

Unit 6 lecture	E-book Chapters 18 and 19 and Lecture PowerPoints for Chapters 18 and 19 (See Content section, Unit 6 Lecture button)
Unit 6 Supplemental Learning Materials	Twenty-three videos (see Content section, Unit 6 Supplemental Learning Activities button)
Unit 6 Graded Activities	SmartWork Chapters 18 and 19 (See Content section, Unit 6 Graded Activities button) One Labster Simulation (See Content section, Unit 6 Lab button) Unit 6 Quiz (See Content section, Unit 6 Graded Activities button)

Unit 7

Unit 7 lecture	E-book Chapter 20 and Lecture PowerPoints for Chapter 20 (See Content section, Unit 7 Lecture button)
Unit 7 Supplemental Learning Materials	None
Unit 7 Graded Activities	SmartWork Chapter 20 (See Content section, Unit 7 Graded Activities button)

Unit 7 lecture	E-book Chapter 20 and Lecture PowerPoints for Chapter 20 (See Content section, Unit 7 Lecture button)
	Unit 7 Quiz (See Content section, Unit 7 Graded Activities button)

Unit 8

Unit 8 lecture	E-book Chapters 22 and 23 and Lecture PowerPoints for Chapters 22 and 23 (See Content section, Unit 8 Lecture button)
Unit 8 Supplemental Learning Materials	Five videos (see Content section, Unit 8 Supplemental Learning Activities button)
Unit 8 Graded Activities	SmartWork Chapters 22 and 23 (See Content section, Unit 8 Graded Activities button) One Labster Simulation (See Content section, Unit 8 Lab button) Unit 8 Quiz (See Content section, Unit 8 Graded Activities button)
Unit 9	
Unit 9 lecture	E-book Chapters 24 and 25 and Lecture PowerPoints for Chapters 24 and 25 (See Content section, Unit 9 Lecture button)
Unit 9 Supplemental Learning Materials	One video (see Content section, Unit 9 Supplemental Learning Activities button)
Unit 9 Graded Activities	SmartWork Chapters 24 and 25 (See Content section, Unit 9 Graded Activities button) One Labster Simulation (See Content section, Unit 9 Lab button) Unit 9 Quiz (See Content section, Unit 9 Graded Activities button)

Course Expectations

Artificial Intelligence

For the duration of this course, the use of generative artificial intelligence (such as ChatGPT) in assignments is strictly prohibited. Assignments are opportunities for personal growth, critical thinking, and applying your acquired knowledge. Your individual effort and creativity are essential in demonstrating your understanding of the course material. Dependence on AI undermines these objectives and compromises the integrity of the learning process. I appreciate your commitment to academic honesty and dedication to upholding this course's principles by refraining from using Generative AI in your assignments.

Late Work

Late work is not accepted without obtaining an official extension ('X' grade) from the University. See the syllabus policy on Extensions for details.

Professional Writing and Speaking Guidelines

Communications in class and online should follow the Student Conduct and Discipline, Respect for the University Environment, and Code of Student Responsibility in the Student Handbook (pg. 20 and 21). Respect the opinions of others using appropriate language and communications.

University Policies

Withdrawal (W)

If a student decides to withdraw from a course before the end of an enrollment period, the student's charges, financial aid, tuition assistance, and/or veteran benefits could be affected. All students should consult with the Business Office and Financial Aid Office to understand the financial impact of withdrawing prior to initiating the withdrawal process.

Students who have registered for this course through our partnership are required to follow the withdrawal policy outlined on the partnership website. Please refer to the partnership site for official withdrawal procedures and deadlines.

Tuition adjustments are independent from academic and financial aid deadlines. Upon receiving a request for withdrawal, using the number of lessons submitted as compared to the total due, a refund of tuition is made according to the following guideline.

On or before the first day of the enrollment period* 100%

After the first lesson through 10% of the enrollment period 90%

After the first 10% through the first 25% of the enrollment period 50%

After the first 25% of the enrollment period 0%

*Enrollment is measured by the number of assignments to be submitted during a six-month period of time, as determined by the University, during which semester credits are earned toward graduation. The refund/repayments shall be calculated using the percentages noted

above as determined using the number of assignments completed and the number of assignments yet to be submitted.

For example, if a student submitted 2 of 17 assignments, they completed 11.76% of the class assignments. The student would be refunded 50% of the tuition cost.

For students from Wisconsin, Maryland, Georgia, Oregon, or Arizona, state laws apply. For students enrolled through the cpacredits.com program, no refund is allowed after the first two weeks.

Students who withdraw from a course prior to submitting the first assignment, or who are administratively withdrawn for non-submission of assignments, will be charged an administrative fee of $99.

Course withdrawal may impact financial aid eligibility. A financial aid counselor is available to discuss this decision.

Upper Iowa University is required to use a pro rata schedule to determine the amount of Title IV aid the student has earned at the time of withdrawal. If financial aid funds have been released to the student because of a credit balance on the student's account at Upper Iowa University, the student may be required to repay some or all of the amount released to the student. This policy is subject to federal regulations. Contact the Financial Aid Office for details.

Withdrawing from a course in progress may result in significant student account charges. Consult with the Business Office before withdrawing. For more information on financial aid implications, go to uiu.edu/financial aid.

Administrative Withdrawal (AW)

A grade of AW (administrative withdrawal) is recorded for any course from which a student is administratively withdrawn. **At least one complete assignment/unit must be received and verified by the instructor within the first 60 days of the enrollment period or the student will be administratively withdrawn from the course.** Students who are administratively withdrawn for non-submission of assignments, will be charged an administrative fee of $99. Non-Attendance (NA): Never attended grades are not applicable to the Self-Paced Degree Program.

Academic Accommodations

It is the policy of Upper Iowa University to ensure equal access to educational and co-curricular activities to students with disabilities as mandated by the Americans with Disabilities Act Amendments Act (ADAAA) and Section 504 of the Rehabilitation Act of 1973. A student seeking accommodations should contact the Director of Student Accessibility Services as early in the session as possible. In order to receive accommodations, students are required to disclose their disability to the Director by completing an application for services that can be found on the Student Accessibility Webpage. In addition to the application packet, the student is required to submit supporting documentation. Submit these to the Student Accessibility Services Office either in person or by email/Fax. A brief interview, in-person, by phone or virtually, with the Director will confirm or deny the accommodations requested. The Student Accessibility Services Office will email accommodation letters to the appropriate professor, the student, and the student's advisor. Additionally, students should work cooperatively with their instructors throughout the session to make sure that their accommodations are appropriate and effective.

Upper Iowa University (UIU) provides closed captioning/transcriptions in acknowledgment of the Americans Disability Act, Rehabilitation Act, and various state laws. The information displayed is computer generated and not reviewed before being published. UIU makes no representations or warranties and expressly disclaims any responsibility or liability with respect to any errors or omissions in, or the accuracy, reliability, timeliness, or completeness of, any information that appears in a closed caption or transcript.

Contact the Director at (563) 425-5949, accessibility@uiu.edu or stop by the office on the 2nd floor of the Student Center, Office of Student Life, Room 229.

Emergency Directives: (Fire, Natural Disaster, Threat on campus, etc.)

In accordance with Upper Iowa University's emergency management plan, any student that requires assistance in the event of an emergency (Fire, natural disaster, threat on campus) is responsible for notifying their instructor of the need for assistance. (Evacuation, and/or indoor safety protocols) This information will be held confidential and only needed in the unlikely event that there is an emergency.

Copyright Statement

In recognition of the Copyright Law of the United States (Title 17, United States Code), Upper Iowa University reminds both faculty members and learners that a willful infringement of the law may result in disciplinary action. The University library has available materials discussing the "fair use" concept, along with criteria and guidelines for reproduction and use of copyrighted materials.

This syllabus is subject to change.