



Course Syllabus: Advanced Organic Chemistry  
McCoy College of Science, Mathematics, and Engineering  
CHEM 4133 (**PY BW226**)  
Spring

Contact Information

Instructor: Dr. Christopher A. Hansen  
Office: Pierce 209  
Office hours: TBD  
Office phone: (940) 397-4285

Course Description

This course is a continuation of CHEM 2003, 2013 and providing a comprehensive study of the physical and chemical characteristics of compounds of carbon. You will learn how to write reaction mechanisms and structure determination of these of these compounds using spectroscopy.

Textbook & Instructional Materials

Required: *Writing Reaction Mechanisms in Organic Chemistry*, 2<sup>th</sup> ed. A. Miller, P.H. Solomon, 2000, Academic Press. (Online version only)

Or

*Writing Reaction Mechanisms in Organic Chemistry*, 3<sup>rd</sup> ed. K. Savin, 2014, Academic Press. ISBN: 9780124114753 (hard copy)

Recommended: Darling Molecular Model Kit (chemistry office).

*Introduction to Polymer Chemistry*, 3<sup>rd</sup> ed., Charles E. Carraher, Jr., 2013, CRC Press, ISBN: 9781466554948 (Hardback)

Student Handbook

Refer to: [Student Handbook 2024-25](#)

Academic Misconduct Policy & Procedures

Academic Dishonesty: Cheating, collusion, and plagiarism (the act of using source material of other persons, either published or unpublished, without following the accepted techniques of crediting, or the submission for credit of work not the individual's to whom credit is given). Additional guidelines on procedures in these matters may be found in the Office of Student Conduct.

[Student Handbook 2024-25](#)

## Grading

Table 1: Points allocated to each assignment

Assignments	Points
PowerPoint Presentation (extra credit)	15
Exams (3 at 100 points each)	300
Final Exam	100
Total Points	400

## Homework

No homework will be graded for this class

## Quizzes

No Quizzes will be given in this class

## Exams

There will be three exams plus a comprehensive final exam. Dates are in the schedule section. There will be no make-ups on exams once they are graded and handed back.

## Important Dates

### Desire-to-Learn (D2L)

Use of the MSU D2L program is a part of this course. Each student is expected to be familiar with this program as it provides a source of communication regarding assignments, examination materials, and general course information. You can log into [D2L](#) through the MSU Homepage. If you experience difficulties, please contact the technicians listed for the program or contact your instructor.

### Attendance

Attendance is expected as stated in the Student Handbook.

### Services for Students with Disabilities

In accordance with Section 504 of the Federal Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990, Midwestern State University endeavors to make reasonable accommodations to ensure equal opportunity for qualified persons with disabilities to participate in all educational, social, and recreational programs and activities. After notification of acceptance, students requiring accommodations should make application for such assistance through Disability Support Services, located in the Clark Student Center, Room 168, (940) 397-4140. Current documentation of a disability will be required in order to provide appropriate services, and each request will be individually reviewed. For more details, please go to [Disability Support Services](#).

## College Policies

### Campus Carry Rules/Policies

Refer to: [Campus Carry Rules and Policies](#)

### Alcohol and Drug Policy

To comply with the Drug Free Schools and Communities Act of 1989 and subsequent amendments, students and employees of Midwestern State are informed that strictly enforced policies are in place which prohibits the unlawful possession, use or distribution of any illicit drugs, including alcohol, on university property or as part of any university-sponsored activity. Students and employees are also subject to all applicable legal sanctions under local, state and federal law for any offenses involving illicit drugs on University property or at University-sponsored activities.

### Course Schedule

Week of	Chapter	Topic
January 20	1	Molecular Structure
January 27	1	and Reactivity
February 3	2	General Principles for Writing Reaction Mechanisms
February 10	3	Reaction of Nucleophiles and Bases
February 17	3	Reaction of Nucleophiles and Bases
February 24	4	Reactions Involving Acids and
March 3	4	Other Electrophiles
March 10	<b>Break</b>	<b>Spring Break</b>
March 17	5	Radicals and Radical Anions
March 24	5	Radicals and Radical Anions
March 31	<b>6-8</b>	
April 7		Polymers
April 14		Polymers
April 21		Polymers
April 28		Polymers
May 5	<b>Test 3</b>	<b>Chapters To Be determined</b>
May 15	<b>FINAL</b>	<b>Comprehensive Final 8:00-10:00</b>