

## Midland College Syllabus

2022 - 2023

CHEM 2425 L

Organic Chemistry II Lab

4 Semester Credit Hours

(3 Lecture/4 Lab)

### Instructor Information:

Instructor: [Click here to enter text.](#)

Phone: [Click here to enter text.](#)

Office Hours: [Click here to enter text.](#)

Office: [Click here to enter text.](#)

Email: [Click here to enter text.](#)

**Notice:** Students MUST actively participate by completing an academic assignment required by the instructor by the official census date. Students who do not actively participate in an academically-related activity will be reported as never attending and dropped from the course

### Course Description:

This laboratory-based course accompanies lecture. Laboratory activities reinforce advanced principles of organic chemistry, including the structure, properties, and reactivity of aliphatic and aromatic organic molecules; and properties and behavior of organic compounds and their derivatives. Emphasis is placed on organic synthesis and mechanisms, and instrumental analysis. Includes study of covalent and ionic bonding, nomenclature, stereochemistry, structure and reactivity, reaction mechanisms, functional groups, and synthesis of simple molecules.

Co-requisite: CHEM 2425. Pre-Requisite: CHEM 2423.

### Text, References and Supplies:

- MC Chem. Dept.; [CHEM 2423/2425 Lab Manual](#); Cengage. ISBN: 9781285117447
- Scientific Calculator.

### Student Learning Outcomes:

Upon successful completion of this course, students will:

1. Perform chemical experiments, analysis procedures, and waste disposal in a safe and responsible manner.
2. Utilize scientific tools such as glassware and analytical instruments to collect and analyze data.
3. Identify and utilize appropriate separation techniques such as distillation, extraction, and chromatography to purify organic compounds.
4. Record experimental work completely and accurately in laboratory notebooks, and communicate experimental results clearly in written reports.
5. Correlate molecular structure with physical and chemical properties of aliphatic and aromatic organic molecules.

6. Predict the mechanism and outcome of aliphatic and aromatic substitution and elimination reactions, given the conditions and starting materials.
7. Predict the chirality of reaction products based on enantiomeric and diastereomeric relationships.
8. Describe reaction mechanisms in terms of energetics, reaction kinetics, and thermodynamics.
9. Use spectroscopic techniques to characterize organic molecules and subgroups.

### **Student Contributions, Responsibilities and Class Policies:**

Students will be expected to comply with the policies outlined in the Midland College student handbook. Instructor policies concerning attendance and academic behavior are consistent with the policies in the student handbook.

### **Attendance Policy:**

It is the responsibility of the students to know the policies and procedures associated with absences. These policies are set by instructors. Excused absences may include, but are not limited to, illness, severe weather, and death in the family. Instructors will determine whether or not an absence is excused. Please visit the [Midland College Catalog](#)

Students are expected to attend laboratory class regularly and participate in the laboratory exercise. "Excused" absences will be allowed to be made up. Excessive absences are discouraged due to the nature of the course.

### **Withdrawal Policy:**

Students who have enrolled in a Texas public institution of higher education as a first-time freshman in fall 2007 or later are permitted to drop no more than six courses during the entire undergraduate career. This limit includes all transfer work taken at a Texas institution of higher education and to second baccalaureate degrees. This statute was enacted by the State of Texas in spring 2007 (Texas Education Code 51.907). Any course that a student drops after Census Day is counted toward the six-course limit if "(1) the student was able to drop the course without receiving a grade or incurring an academic penalty; (2) the student's transcript indicates or will indicate that the student was enrolled in the course; and (3) the student is not dropping the course in order to withdraw from the institution." Please visit the [Midland College Catalog](#)

### **Scholastic Dishonesty:**

Midland College does not tolerate scholastic dishonesty or academic misconduct in any form. Please read the MC Student Handbook on this subject. Please visit the [Midland College Catalog](#)

### **Evaluation of Students:**

The laboratory is valued as 30% of the overall grade in Chemistry 2425. The exercises cover the course description and are given equal value. Grades in the

laboratory are based on completeness and clarity of the laboratory write-up (50%) and quality of data and results plus laboratory questions at the end of each chapter (50%). Lab Grade is based solely on these lab reports.

### **Course Schedule:**

This class meets for 3 lecture hours per week and 4 laboratory hours per week. For a tentative schedule of the class meetings and laboratory meetings, please refer to the schedule distributed to each student on the first class meeting (See Instructor Handout).

### **Non-Discrimination Statement**

Midland College does not discriminate on the basis of race, color, national origin, sex, disability or age in its programs and activities. The following individual has been designated to handle inquiries regarding the non-discrimination policies:

#### **Tana Baker**

Title IX Coordinator/Compliance Officer

3600 N. Garfield, SSC 131

Midland, Texas 79705

(432) 685-4781

[tbaker@midland.edu](mailto:tbaker@midland.edu)

For further information on notice of non-discrimination, visit the ED.gov Office of Civil Rights website, or call 1 (800) 421-3481.

### **Americans with Disabilities Act (ADA) Statement:**

Midland College provides services for students with disabilities through Student Services. In order to receive accommodations, students must visit [www.midland.edu/accommodation](http://www.midland.edu/accommodation) and complete the Application for Accommodation Services located under the Apply for Accommodations tab. Services or accommodations are not automatic, each student must apply and be approved to receive them. All documentation submitted will be reviewed and a "Notice of Accommodations" letter will be sent to instructors outlining any reasonable accommodations.

### **Continuity of Instruction Statement**

In the event that on campus activities are suspended due to extenuating circumstances, such as weather or quarantine, the instructor will continue instruction in a manner that best supports the course content and student engagement. In this event, your instructor will notify students of the change via [Click here to enter text.](#) At that time, they will provide details about how instruction and communication will continue, how academic integrity will be ensured, and what students may expect during the time that on campus activities are suspended. If a

student becomes unable to continue class participation due to extenuating circumstances, (e.g., health and safety, loss of power, etc.) the student should contact their instructor and advisor for guidance. Resources are available to students via the SOS program. Information can be found at <https://www.midland.edu/services-resources/student-services/sos.php>.

### **Grievances or complaints**

Concerns should be expressed as soon as possible to allow for early resolution. Midland College encourages students to discuss their concerns with their instructor first. If you feel uncomfortable discussing your situation with your instructor, students should discuss their concerns with the Chair of the appropriate department (Biology Chair – Mr. Tomas Hernandez (432-685-6751), Chemistry Chair – Mr. John Anderson (432-685-6737), Engineering and Physics Chair – Dr. Brian Flowers (432-685-4586), Geology Chair – Mr. Antony Giles (432-685-5580), Kinesiology Chair – Ms. Sheena Thompson (432-685-4579), Math Chair – Dr. Krista Cohlmia (432-685-4541) then the Dean of Math and Science – Dr. Miranda Poage (432-685-4561). If a resolution is still not possible, students may proceed with the formal complaint process.

<http://catalog.midland.edu/content.php?catoid=14&navoid=2579#grievances-and-complaints>

### **Math & Science Division Information:**

Division Office: AHSF 124 (432) 685-4561  
Division E-Mail: [mns@midland.edu](mailto:mns@midland.edu)

Department Chair: Mr. John Anderson (432) 685-6737  
Dean: Dr. Miranda Poage  
Secretary: Sarah Anderson  
Clerk: Liliana Orcutt

### **Contents**

<b>Midland College Syllabus</b> .....	1
<b>Instructor Information:</b> .....	1
Instructor: .....	1
Phone: .....	1
Office Hours .....	1
<b>Notice</b> .....	1
<b>Course Description:</b> .....	1
<b>Text, References and Supplies:</b> .....	1

**Student Learning Outcomes:** ..... 1

**Student Contributions, Responsibilities and Class Policies:** ..... 2

**Attendance Policy:**..... 2

**Withdrawal Policy:** ..... 2

**Scholastic Dishonesty:** ..... 2

**Evaluation of Students:**..... 2

**Course Schedule:**..... 3

**Non-Discrimination Statement** ..... 3

**Americans with Disabilities Act (ADA) Statement:** ..... 3

**Continuity of Instruction Statement**..... 3

**Grievances or complaints** ..... 4

**Math & Science Division Information:**..... 4