

## Midland College Syllabus

2021 – 2022AP

CHEM 2423 L

Organic Chemistry I 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 may be reported as never attended and dropped from the course.

### Course Description:

This laboratory-based course accompanies lecture, Organic Chemistry I. Laboratory activities will reinforce fundamental principles of organic chemistry, including the structure, bonding, properties, and reactivity of organic molecules; and properties and behavior of organic compounds and their derivatives. Emphasis is placed on organic synthesis and mechanisms. Includes study of covalent and ionic bonding, nomenclature, stereochemistry, structure and reactivity, reaction mechanisms, functional groups, and synthesis of simple molecules. Methods for the purification and identification of organic compounds will be examined. Co-requisite: CHEM 2423. Pre-requisites: CHEM 1412

### Text, References and Supplies:

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

Laboratory eye wear is required to conduct laboratory experiments safely. It is not an option. Each student must furnish their own ink pen, lab notebook and calculator.

### Safety:

In addition to the above supplies, students are responsible for the following safety equipment:

1. Close-toed shoes.
2. Sleeved shirt that covers midriff (or lab coat).
3. Pants.
4. ACS regulation safety goggles (Contacts are STRONGLY DISCOURAGED).

If any one of these items is not present, the student will not be allowed to participate in the experiment.

**Safety: (cont'd)**

Also, the following guidelines are to be followed at all times:

1. No open food or drink containers.
2. Safety equipment stays in place from the start of an experiment until the last person has finished the experiment.
3. No horseplay.

Gross violation of safety conduct that severely jeopardizes the health and well-being of any individuals will result in an automatic failure of the laboratory course.

**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. Demonstrate a basic understanding of stereochemistry.
6. Classify organic compounds by structure, molecular orbitals, hybridization, resonance, tautomerism, polarity, chirality, conformation, and functionality in laboratory reports.
7. Identify organic molecules using appropriate organic nomenclature in laboratory reports.
8. Perform organic syntheses of molecules.
9. Describe organic reactions in terms of radical and ionic mechanisms in laboratory reports.
10. Use spectroscopic data to determine the structure of organic molecules.
11. Formulate appropriate reaction conditions for the synthesis of simple organic molecules.

**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 2423. 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%). 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 (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.

**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**

**Midland College Syllabus** ..... 1

**Instructor Information** ..... 1

    Instructor: ..... 1

    Phone: ..... 1

    Office Hours: ..... 1

**Notice** ..... 1

**Course Description:** ..... 1

**Text, References and Supplies:** ..... 1

**Safety:**..... 1

**Safety: (cont'd)** ..... 2

**Student Learning Outcomes:**..... 2

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

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

**Withdrawal Policy:** ..... 3

**Scholastic Dishonesty:** ..... 3

**Evaluation of Students:** ..... 3

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

**ADA Statement:**..... Error! Bookmark not defined.

**Math & Science Division Information:** ..... 3