

## Midland College Syllabus

2022 - 2023

CHEM 1405 L

Introductory Chemistry Lab

4 Semester Credit Hours

(3 Lecture/4 Lab)

*Core Curriculum Course*

### 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 survey course for non-science and allied health majors will enable these students to comprehend the fundamental concepts of chemistry and will fulfill four credit hours of the lab science requirement. Topics may include inorganic, organic, biochemistry, food/physiological chemistry, and environmental/consumer chemistry. Prerequisite: TSI complete in Reading and Math.

### Core Objectives:

This course fulfills four hours of the Life and Physical Science requirement in the Midland College **Core Curriculum**. The Core Curriculum is a set of courses that provide students with a foundation of knowledge, skills and educational experiences that are essential for all learning. Please visit the [Midland College Catalog](#) for any questions about the core. As part of the core, this course addresses the following four objectives:

Critical thinking skills – Students will demonstrate critical thinking skills by using appropriate calculations, analyzing experimental data, developing conclusions based upon trends in the data in course assignments, instructor created proctored exams, a departmental final exam, and in the execution of laboratory experiments / reports.

Communication skills – Students will document observations, qualitative and quantitative data during the lab period. They will answer questions based on observations and hypothetical situations presented in each lab report.

Empirical and Quantitative skills – Students will demonstrate empirical and quantitative skills by analyzing real-world applications of mass measurement,

volume measurement, concentration assessment, stoichiometry, titrations, paper chromatography, spectrophotometry, through course assignments, instructor created proctored exams, and a departmental final exam.

Teamwork – Students will work in groups of two or more to conduct laboratory experiments. Students will be graded on the quality of their data acquired together in addition to their individual conclusions.

### **Text, References and Supplies:**

- CHEMISTRY LABORATORY MANUAL: CHEM1405 | Midland College  
**Author:** CER  
**ISBN:** 978-1-285-11484-2
- Scientific Calculator

### **Student Learning Outcomes:**

After successful completion of this course, the student will be able to properly and precisely obtain scientific data, recognize patterns and trends in the data and if need be, graphically represent such data. He or she will also be able to record observations, think critically, and draw general conclusions based on them. The student will also be able to correlate principles learned in the laboratory with those discussed in lecture.

### **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. Regular attendance is required to do well in this class.

### **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](#)

### **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](#)

**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.

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.

**Evaluation of Students:**

A lab average will be calculated based on your lab reports and/or lab exams. The laboratory is valued as 25% of the overall grade in Chemistry 1405. Two lab report grades will be dropped. There are no make-up labs this semester. If for some reason, you must miss an experiment, a zero will be assigned and will count as one of your dropped grades. If you miss two experiments, both zeros will be dropped, but the rest of your grades will count in your average. If three or more are missed, two will be dropped and the others will count as "zeros" in your average. It is to your advantage to show up to all of the labs (if possible) as this allows your lowest grades to be dropped.

Lab Reports = ..... 60 – 100%  
Lecture Exam =..... 0 – 40%

**Course Schedule:**

(See attached sheet)

### **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 Cohlma (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>Core Objectives:</b> .....	1
Critical thinking skills .....	1
Communication skills .....	1
Empirical and Quantitative skills .....	1
Teamwork.....	2
<b>Text, References and Supplies:</b> .....	2

• CHEMISTRY LABORATORY MANUAL: CHEM1405 | Midland College

<b>Author:</b> CER .....	2
<b>Student Learning Outcomes:</b> .....	2
<b>Student Contributions, Responsibilities and Class Policies:</b> .....	2
<b>Attendance Policy:</b> .....	2
<b>Withdrawal Policy:</b> .....	2
<b>Scholastic Dishonesty:</b> .....	3
<b>Safety:</b> .....	3
<b>Evaluation of Students:</b> .....	3
Lab Reports.....	3
Lecture Exam.....	3
<b>Non-Discrimination Statement</b> .....	4
<b>Americans with Disabilities Act (ADA) Statement:</b> .....	4
<b>Continuity of Instruction Statement</b> .....	4
<b>Grievances or complaints</b> .....	5
<b>Math &amp; Science Division Information:</b> .....	5