



**Course Syllabus: General Chemistry Lab**  
**College of Science and Mathematics**  
**CHEM 1141**  
**Fall 2024**

**Contact Information**

Instructor: Candice Fulton

Office: Pierce Hall 212

Office hours: MW 10AM – noon; TR 11AM – noon; other times by appt

Office Phone: (940) 397-4450

Cell Phone: 940.923.6868

E-mail: <mailto:candice.fulton@msutexas.edu>

**Course Description**

CHEM 1141 is a first semester chemistry lab course to satisfy lab science requirements for BS majors and provide entry level information for students wishing to pursue other chemistry courses. The content covers basic chemistry concepts, calculations, and background for future courses such as organic, analytical, environmental, and biochemistry. This is a survey course. Highlights and introductions to various specific and applied concepts will be covered in several areas relating to different aspects chemistry. This is the supplementary lab that practices lab techniques and teaches the students about accuracy, measurements, common lab equipment and techniques.

**Textbook & Instructional Materials**

Chemistry: Laboratory Manual for Chemistry 1141, Fulton et al (bookstore)

D2L: platform for all weekly quizzes and where all grades can be viewed  
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**Study Hours and Tutoring Assistance**

Please check TASP tutoring schedule online or through clas information in D2L

**Student Handbook**

Refer to: [Student Handbook](#)

**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Dishonesty: Cheating, collusion, and plagiarism (the act of using source material of other persons, either published or unpublished, without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 to whom credit is given). Additional guidelines on procedures in these matters may be found in the Office of Student Conduct. [Office of Student Conduct](#) **There are many opportunities for group work and studying in groups is encouraged, but some assignments are meant to show individual competency; and therefore, must be done individually. Similar answers on individual homework, data sheets/reports, or quizzes will have one written warning. Zeros will be given to every assignment afterwards where cheating is done. Blatant and obvious copying (exact odd/wrong answers, cut and paste) will receive an automatic zero the first and every time. Scores obtained by cheating will NOT be ones that are dropped in any category. Phones out/sounding during exam, cheating aids, or staring eyes during exams will result in dismissal a zero on the exam.**

### Moffett Library

Moffett Library provides resources and services to support student’s studies and assignments, including books, peer-reviewed journals, databases, and multimedia materials accessible both on campus and remotely. The library offers media equipment checkout, reservable study rooms, and research assistance from librarians to help students effectively find, evaluate, and use information. Get started on this [Moffett Library webpage](#) to explore these resources and learn how to best utilize the library.

### Grading

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Table 1: Points allocated to each assignment

Assignments	Percent
Data Sheets	50
Homework (Prelabs)	10
quizzes	10
Midterm Exam	10
Final Exam	10
Final Exam	10
Total Percent	100%

Table 2: Total points for final grade.

Grade	Points
A	89
B	79
C	69
D	59
F	Less than 59

## **Homework**

**Before you may conduct lab, you must read and sign the safety sheet and academic integrity policy (digital, on D2L). You must also watch the safety film and take a quiz. You are not allowed to do experiments until this is done.** There will be a prelab homework assignment due at the beginning of lab each week. Your data sheet is due at the beginning of lab the week after the experiment.

## **Quizzes**

There are 2 quizzes each week: quiz A is the outline and highlighting to prepare for lab. Quiz B is the online safety and general knowledge quiz.

## **Mid-Term Exam and Final Exams**

See schedule and lab manual. There will be a midterm over the first 5 experiments and a final over the last 5 experiments. More details will be given the week before the midterm. These exams are scheduled on a Thursday night. For those that cannot get off of work or have class (do NOT skip class), then you can take it earlier in the day or on your lab day. NO ONE is allowed to take it after the exam has been given. Friday is not an option.

## **Extra Credit**

**Each semester has a given extra credit assignment : TBA**

## **Late Work /Make up Work**

Quizzes have a hard deadline in D2L, no exceptions. Prelabs and data sheets may be turned in up to one week late for less credit. One drop is placed in each section to cover any absences whether university excused or not.

## **Important Dates**

Last day for term schedule changes: Check the date on the [Academic Calendar](#).  
Deadline to file for graduation: Check the date on the [Academic Calendar](#).  
Last Day to drop with a grade of "W:" Check the date on the [Academic Calendar](#).  
Refer to: [Drops, Withdrawals & Void](#)

## **Desire-to-Learn (D2L)**

Extensive 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 primary 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**

Students are expected to attend all meetings of the classes in which they are enrolled. Although in general students are graded on intellectual effort and performance rather than attendance, absences may lower the student's grade where class attendance and class participation are deemed essential by the faculty member. In those classes where attendance is considered as part of the grade, the instructor should so inform students of the specifics in writing at the beginning of the semester in a syllabus or separate attendance policy statement. An instructor who has an attendance policy must keep records daily. The instructor must give the student a verbal or written warning before being dropped from the class. Instructor's records will stand as evidence of absences. A student with excessive absences may be dropped from a course by the instructor. Any individual faculty member or college has the authority to establish an attendance policy, providing the policy is in accordance with the General University Policies.

## **Online Computer Requirements**

Taking an online class requires you to have access to a computer (with Internet access) to complete and upload your assignments. It is your responsibility to have (or have access to) a working computer in this class. ***\*Assignments and tests are due by the due date, and personal computer technical difficulties will not be considered a reason for the instructor to allow students extra time to submit assignments, tests, or discussion postings.*** Computers are available on campus in various areas of the buildings as well as the Academic Success Center. ***\*Your computer being down is not an excuse for missing a deadline!!*** There are many places to access your class! Our online classes can be accessed from any computer in the world that is connected to the internet. Contact your instructor immediately upon having computer trouble. If you have technical difficulties in the course, there is also a student helpdesk available to you. The college cannot work directly on student computers due to both liability and resource limitations however they are able to help you get connected to our online services. For help, log into [D2L](#).

## **Instructor Class Policies**

All safety policies and clothing requirements are given in the lab manual and safety sheet. Safety sheet and Academic Integrity policies are due before the first lab.

## **Change of Schedule**

*Students dropping lecture must usually drop lab. If you are dropping lecture, please see me to see if you are able to stay in lab.* A student dropping a course (but not withdrawing from the University) within the first 12 class days of a regular semester or the first four class days of a summer semester is eligible for a 100% refund of applicable tuition and fees. Dates are published in the Schedule of Classes each semester.

## **Refund and Repayment Policy**

A student who withdraws or is administratively withdrawn from Midwestern State University (MSU) may be eligible to receive a refund for all or a portion of the tuition, fees, and room/board charges that were paid to MSU for the semester. However, if the student received financial aid (federal/state/institutional grants, loans, and/or scholarships), all or a portion of the refund may be returned to the financial aid programs. As described below, two formulas (federal and state) exist in determining the amount of the refund. (Examples of each refund calculation will be made available upon request).

## **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 an 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](#)

### *Smoking/Tobacco Policy*

College policy strictly prohibits the use of tobacco products in any building owned or operated by WATC. Adult students may smoke only in the outside designated smoking areas at each location.

### *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 prohibit 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.

### *Campus Carry*

Effective August 1, 2016, the Campus Carry law (Senate Bill 11) allows those licensed individuals to carry a concealed handgun in buildings on public university campuses, except in locations the University establishes as prohibited. The new Constitutional Carry law does not change this process. Concealed carry still

requires a License-to-carry permit, and openly carrying handguns is not allowed on college campuses. For more information, visit [Campus Carry](#).

### *Active Shooter*

The safety and security of our campus is the responsibility of everyone in our community. Each of us has an obligation to be prepared to appropriately respond to threats to our campus, such as an active aggressor. Please review the information provided by the MSU Police Department regarding the options and strategies we can all use to stay safe during difficult situations. For more information, visit [MSUReady - Active Shooter](#). Students are encouraged to watch the video entitled "Run. Hide. Fight." which may be electronically accessed via the University police department's webpage: ["Run. Hide. Fight."](#)

### **Grade Appeal Process**

Update as needed. Students who wish to appeal a grade should consult the Midwestern State University [MSU Catalog](#)

\***Notice:** Changes in the course syllabus, procedure, assignments, and schedule may be made at the discretion of the instructor.

### **Tentative Course Schedule:**

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Dates	Activities/Assignments/Exams	Due Date
Aug 27 - 29	NO LAB Safety Sheet and AIP due	See lab schedule for due dates, formats
Sept 3 - 5	Exp #1 Density	
Sept 10 - 12	Exp #2 Dilution	
Sept 17 - 19	Exp #3 Paper Chromatography	
Sept 24 - 26	Exp #4 Mass Relations	
Oct 1 - 3	Exp #5 Prep of Alum	
Oct 10	MIDTERM	
Oct 15 - 17	NO LAB	
Oct 22 - 24	Exp #6 Calorimetry	
Oct 29 - 31	Exp #7 Vit C	
Nov 5 - 7	Exp #8 Alkaline Earths/Halogens	
Nov 12 - 14	Exp #9 Nonmentals	

Dates	Activities/Assignments/Exams	Due Date
Nov 19 - 21	Exp #10 VSEPR/Models	
Nov 26 - 28	NO LAB	
Dec 5	FINAL	

### **Labs and Concepts:**

**Density** – The analysis and calculation of the density of an unknown liquid and unknown metal using a pycnometer. The concept of space in a container to calculate volume and mathematical concepts used to calculate unknown variables will be discussed.

**Dilution** – Calculating and executing dilutions using pipets. Practice with this equipment gives groundwork and entry level knowledge to chemistry and biology courses as well as research and industrial/medical labs.

**Mass relations** – An introduction to mass relationships as it applies to mole relationships in chemical equations. An unknown substance will be identified (out of four possible) by its mass relationship of original material to known salt formed.

**Preparation of Alum** – Synthesis lab where alum salt is made from recycled aluminum cans. Synthesis using types of reactions, the understanding of Al as an amphoteric substance, and use of multiple chemicals and transfers will be utilized. Percent yield is calculated. Purity is tested by melting point.

**Calorimetry** – The study of heat transfer for a hot metal, dissolving of a salt, and a chemical reaction. Calorimetry, enthalpy, and mole calculations are utilized.

**Analysis for Vitamin C** – The study of the titration method, preparing stock solutions, equipment accuracy/use, and calculating the concentration of a titrant and unknown will be discussed. The amount of vitamin c in an unknown will be calculated.

**Alkaline Earths and Halogens** – A descriptive lab to learn about the color, solubility and some physical/chemical characteristics of group 2A and 7A. Characteristics will then be used to determine an unknown.

**Nonmetals and Compounds** – A descriptive lab used to learn about the physical and chemical nature of common gases. Specific characteristics will be determined and used to find the identity of an unknown gas. Gases are generated from chemical reactions where the gas in question is a product.

**VSEPR and Molecular Shape** – a lab of building molecules according to Lewis Dot rules. Prediction of shape, polarity, and bonding is practiced for numerous molecules.