Course Syllabus: General Chemistry Lecture
College of Science and Mathematics
CHEM 1241
Spring 2025

Contact Information

Instructor: Candice Fulton
Office: Enter office #Pierce Hall 212
Office hours: M/W/F 10 AM – noon; others by appointment
Office Phone: 940-397-4450
Cell Phone: 940-923-6868
Twitter:
E-mail: mailto:candice.fulton@msutexas.edu

Course Description

CHEM 1241 is a second 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.

Objectives include: to understand scientific thought and process as it relates to chemistry and problem solving; to analyze numbers and data to interpret outcomes of experimentation; to calibrate, measure, and evaluate data from instruments, to communicate scientifically both verbally and written; and to learn basic lab safety and skills related to general laboratory work and CHEM 1243 lecutre concepts.

Inclement Weather Procedure

In the event of a snow day, online assigments will keep the same date. Assignments due in person will be collected the next day we meet. If it is an exam/quiz day, expect the exam/quiz the next day we meet. Watch for D2L announcemnts to cover an other differences that may occur.

Textbook & Instructional Materials

Chemistry: Laboratory Manual for Chemistry 1241, Fulton et al
D2L:platform for all weekly quizzes and where all grades can be viewed

Study Hours and Tutoring Assistance

Professors have office hours for the purpose of asking questions, working problems, and clarifying information – use this! Chemistry also offers free tutoring for lab and lecture classes. Person tutors can be obtained but for an hourly rate (please see office assistant for the current list). Study sessions for each test will be scheduled if time allows. PLEASE COME! SI hours and TASP hours will be posted in D2L

Student Handbook

Refer to: Student Handbook

Academic Misconduct Policy & Procedures

Similar answers on 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 a zero on the exam.
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.
Office of Student Conduct

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

Table 1: Grade distribution

Assignments	**Percent**
reports	50
Prelabs	10
quizzes	10
Class participation	10
midterm	10
final	10

Table 2: Total points for final grade.

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

Homework

Before you may enter lab, you must read and sign the safety sheet online and an academic integrity policy. 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.

**MAKE SURE TO CHECK YOU COMPUTER'S OPERATING SYSTEMS TO ENSURE YOUR COMPUTER IS COMPATIBLE AND UP TO DATE.*

Quizzes

Quizzes will be given for each lab (D2L). It will be due before lab begins. *See schedule. No extensions will be made on quizzes.

Exams

There will be a midterm (experiments 11 – 15) and a final (experiments 16 – 20). More information will be given in the days prior to the exams.**NOTE day and time of midterm and final.

Click here to enter text.

Extra Credit

Extra credit is offered for each lab. It is due and written in a separate section on the report to follow the sources of error section. It must be an industrial/commercial application (large scale) of either the piece of equipment/instrument used in the experiment or the technique. This does not include equipment that is in your drawers or the community glassware. For all 5 points, a. the application must be explained (equipment must have a schematic and purpose explained; a reaction must be given if relevant; or the technique must be explained; b. a cite must be given; and c. originality or relevance to other applied disciplines is preferred.

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)

Walk through each module/content entry to familiarize yourself with the platfrom and where to locate information. 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 will lower the student's grade because vital information is not gained. Excessive, non-university excused absences or missing TWO exams or THREE quizzes will result in an instructor drop. Missing this amount of material results in the inability to pass the course. The instructor must give the student a verbal or written warning prior to being dropped from the class.

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

Attendance is needed to obtain material and for those on financial aid. Owl v2 must be purchased and worked for homework grade. Students must schedule

exams prior to leaving on univestity/military/other trips/absenses. Absense due to illness requires a notification by email as soon as able so that missed work can be scheduled. Emails require your name and lecture/lab you are in for accurate information. This must be through university emails/D2L.

Change of Schedule

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:

It is possible that exam dates change due to the overall class progress. You will be given a one week notice when the date is set, if not what is schedule below.

Table 3:

Dates	Activities/Assignments/Exams
Jan 21-23	Safety/intro lecture online; MUSEUM assignment
Jan 28-30	11 Qualitative Analysis Group 1
Feb 4-6	12 Qualitative Analysis Group 2
Feb 11-13	13 Timed Unknown
Feb 18-20	15 Copper Complexes
Feb 25-27	14 Reaction Rates
Mar 6	**MIDTERM 6PM**
Mar 11-13	**SPRING BREAK**
Mar 18-20	16 Equilibrium Constant
Mar 26-28	**Service Project work/tours**
Apr 1-3	17 Hard Water
Apr 8-10	18 Polymers
Apr 15-17	**BREAK**
Apr 22-24	19 Acid/Base Titration
Apr 30	**Last day to drop w W**
Apr 29-May 1	20 Electrochemistry
May 8	**FINAL 6PM**

General Summary and Objectives

Experiments 11 – 13: Qualitative analysis labs will strengthen lab techniques and skills while learning to identify unknown ions in solution by manipulating pH and solubility. Exp 13 will be a timed lab to assess multi-tasking and procedural skills.

Experiment 14: The rates of reaction lab will be a cross-section of material related to the kinetics chapter of the lecture text. The initial rate method, calculation of k, and the Arrhenius equation will be evaluated for a given reaction. Several factors that affect rate will also be evaluated.

Experiment 15: Using copper complexes with different ligands, strengths and characteristics of several complexes will be ranked and evaluated.

Experiment 16: An iron complex at varying concentrations will be evaluated using spectrophotometry to calculate an equilibrium constant.

Experiment 17: The water hardness lab will be an environmental lab where the titrant will be standardized and sued to determine the ppm of an unknown water sample.

Experiment 18:	Various recyclable polymers will be evaluated to determine physical and chemical characteristics for the purpose of understanding recycling of polymers and how polymers are identified and separated. These observations will then be used to identify an unknown sample.
Experiment 19:	The titration method will be used to standardize a basic titrant for use to identify the equivalent mass of an unknown acid. Several indicators will also be evaluated for color and estimated pH.
Experiment 20:	Electrochemistry will be studied by setting up and using cathodes to evaluated oxidation and reduction reactions. Using this same method, copper and a copper solution will be used to gather data to calculate Avogadro's number and Faraday's constant.
Oral presentation:	Towards the end of the semester, an oral presentation will be given. Two partners will be expected to evaluate and present a peer-reviewed journal article to the class according to the rubric given in class after midterm. Alternate assignments include service learning projects. Check schedule for assignment.