



Course Syllabus: General Chemistry II Lab

College of MCOSME

CHEM 1241

Spring 2026

Contact Information

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Office hours: M/W/F 10 AM – noon; *others by appointment or M-R after 2PM*

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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 of chemistry. This is the supplementary lab that practices lab techniques and teaches the students about accuracy, measurements, common lab equipment and techniques.

Inclement Weather Procedure

In the event of a snow day, online assignments 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 announcements to cover any other differences that may occur.

Required Textbook & Instructional Materials

1. Laboratory Manual for Chemistry 1241, Fulton et al)

2. D2L LMS platform for online quizzes and assignment droboxes

Study Hours and Tutoring Assistance

Professors have office hours for the purpose of asking questions, working problems, and clarifying information – use this! TASP can be used as well.

Study Monkey/Ai, Youtube, chemreview, Khan Academy, and Quizlet are all very good options to look up videos, examples, demonstrations, extra problems, and practice problems.

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Dishonesty: Cheating, collusion, and plagiarism (the act of using source material of other persons, either published or unpublished, without following the accepted techniques of crediting, or the submission for credit of work not the individual's to whom credit is given).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

Grading is represented in percentile score where all assignments in a given category count the same.

Table 1: Points allocated to each assignment

Assignments	Percent
Reports (10)	50
Prelabs (10)	10
Quizzes (10)	10
Class Participation	10
Midterm	10
Final	10
Two exam extra credit opportunities	5 pts each

Table 2: Total points for final grade.

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

Homework (Prelabs)

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 YOUR COMPUTER'S OPERATING SYSTEMS TO ENSURE YOUR COMPUTER IS COMPATIBLE AND UP TO DATE FOR D2L and HOMEWORK PLATFORMS/LMS.*

Quizzes

Quizzes will be given for each lab (online in D2L) and are due before lab begins.

*See schedule.

No late work or reopening of this assignment.

Exams: Midterm and Final

Exams: 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. All sections take exams together, Thursday, 6-8 PM*

No Inspires will be allowed for exams. Pencil, scantron, nonprogrammable calculator needed.

Extra Credit

There are occasions when extra credit will be offered for attendance to professional seminars or service projects sponsored by our department. TWO seminars (5 pts each) or completion of a service project (10 pts) may be used on one exam.

Extra credit is also 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 summarized (equipment must have a schematic and function explained); B. a reaction must be given if relevant (discussion of a drug, chemical reaction process); or the technique must be explained; C. a cite must be given; and D. originality or relevance to other applied disciplines is preferred.

Late Work/Make Up Work

Quizzes cannot be made up or reopened. **Prelabs and reports** can be turned in up to a week late: 5% off first 24hrs late increasing by 1% for each day for the maximum of 10%. **For incomplete assignments turned in up to one week late, a base score of 50 will be given.** **Exams** can only be made up with a university excuse or equivalent otherwise **NO exams** are made up after due date. Exams for those who travel/absences for work/school functions must be made up BEFORE leaving. Make sure to ask about make up material if you miss class for any reason as soon as possible. Do not wait until you return if at all possible.

Core Assessments

CHEM 1241 is a core course. As such, the following assessment is required:

Table 3: Core assessment requirements.

COURSE	Objective: assignment
CHEM 1241	Teamwork, Communication: Journal article poster for group work, written communication. Poster presentation summary of peer-reviewed journal article;

Important Dates

- Last day for term schedule changes: Check date on [Academic Calendar](#).
- Deadline to file for graduation: Check date on [Academic Calendar](#).
- Last Day to drop with a grade of "W": Check date on [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

Missing class means missing notes and material. This is an in-person class, so slides/notes will not be placed online, although some examples and additional copies of assignments may be placed online for ease or clarity. 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 on a daily basis. The instructor must give the student a verbal or written warning prior to 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 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 which 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 university/military/other trips/absences. Absence 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.

Computer Requirements – Ai Policy

Ai is a tool to help organize notes, for study help, and general questions. It is not to be used to create any working or written assignments that require your original work. Over 25% Ai assignments will be a zero with no “redo”

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) exists 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 application for such assistance through Disability Support Services, located in the Student Wellness Center, (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 prohibits 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 has 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 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

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.

Course Schedule:

Table 4: Schedule.

Quizzes are given after each chapter. Owl v 2 due dates are on the required Cengage platform and due after the completion of each chapter.

Week	Activities/Assignments/Exams	Due Date
Jan 20-22	Safety/intro lecture; Art assignment	Prelab hardcopies due at 1 PM of your lab day. Quizzes and reports due by 1 PM online
Jan 27-29	11 Qualitative Analysis Group 1	Prelab hardcopies due at 1 PM of your lab day. Quizzes and reports due by 1 PM online
Feb 3-5	12 Qualitative Analysis Group 2	Prelab hardcopies due at 1 PM of your lab day. Quizzes and reports due by 1 PM online
Feb 10-12	13 Timed Unknown	Prelab hardcopies due at 1 PM of your lab day. Quizzes and reports due by 1 PM online
Feb 17-19	14 Copper Complexes Journal article title due by 5 PM	Prelab hardcopies due at 1 PM of your lab day. Quizzes and reports due by 1 PM online
Feb 24-26	15 Reaction Rates	Prelab hardcopies due at 1 PM of your lab day. Quizzes and reports due by 1 PM online
Mar 5	MIDTERM 6PM	Report due online by 6 PM
Mar 10-12	SPRING BREAK	NA
Mar 17-19	16 Equilibrium Constant	Prelab hardcopies due at 1 PM of your lab day. Quizzes and reports due by 1 PM online
Mar 24-26	Journal Article work, Water tour	NA
Mar 31-Apr 2	Break	NA

Week	Activities/Assignments/Exams	Due Date
Apr 7 - 9	17 Hard Water	Prelab hardcopies due at 1 PM of your lab day. Quizzes and reports due by 1 PM online
Apr 14-16	18 Polymers	Prelab hardcopies due at 1 PM of your lab day. Quizzes and reports due by 1 PM online
Apr 21-23	19 Acid/Base Titration	Prelab hardcopies due at 1 PM of your lab day. Quizzes and reports due by 1 PM online
Apr 28*-30	20 Electrochemistry Journal article poster (Core assessment: teamwork, communication)	Prelab hardcopies due at 1 PM of your lab day. Quizzes and reports, poster due by 1 PM online
Apr 29*	Last day to drop with W	NA
May 7	FINAL 6 PM	Report due IN PERSON by 6 PM

General Chemistry II Lab topics

The following table gives the main topics covered in chapters stated above.

Table 5: Experiment Summary.

Experiment	Topics
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	Topics
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 used 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 evaluate 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.
Journal Article Poster	In partners for the Teamwork core assessment, you will be required to do a poster summarizing a peer-reviewed journal article related to the field of chemistry (applications as it relates to other science fields is allowed and encouraged as long as the rubric is followed).