

CHEM 1141 GENERAL CHEMISTRY LAB

Spring 2025 Syllabus Monday 1:00 pm -4:50 pm. Bolin 302

Course Instructor

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Office: Pierce Hall 210

Class Website: We will be using the Desire 2 Learn (D2L) platform accessible through the MSU portal.

Office Hour: MW 10:00-12:00 pm; F 10:00-11:00 am by appointment

Purpose of the Course

The purpose of the syllabus is to inform you about course expectations, policies, and content. Ignorance of course policies because you did not read your syllabus will not be an acceptable excuse for not adhering to these policies. Because the syllabus is also available online, you cannot lose it. By accepting this syllabus and remaining enrolled in the course, you affirm that you understand the contents of this syllabus and that you will adhere to its requirements.

Class Format

This will work best if done in order:

- (1) Finish the data sheet from the previous week. Due next week before starting your lab unless otherwise noted.
- (2) Read the lab manual.
- (3) Highlight the following. It will be your HALF of your QUIZ SCORE

| Highlighting Instructions | |
|---|---|
| Chemicals in green | Do NOT highlight words such as solution, precipitate... chemical names and unknown only |
| Safety in pink | Any chemical or physical safety should be highlighted in pink |
| Equipment in yellow | All equipment mentioned in the lab whether from the TA, laid out, in community drawers or in your own drawer. |
| TAs will check this as you start setting up for lab | |

- (4) Do the prelab (due in person)

Class Format due to COVID-19

- (1) This course has been planned as a fully face-to-face course for Spring 2025. The class will meet in its regularly scheduled room on Monday afternoon.
- (2) I will post lecture power point video and lab experimental video in the D2L. It is your responsibility to review those materials before coming to the lab.
- (3) I will use D2L for posting syllabi, course communication, and course schedule. You should regularly check D2L and the email hosted via D2L for important course information.
- (4) If a student is approved by Disability Support Services to limit or eliminate their physical class attendance due to an underlying condition, please email me the information. But you still have to show up for the exams and lab work, because I will not give the online test or online lab.
- (5) Students will not attend/hold class if they are experiencing illness or any signs/symptoms of COVID-19, please report to school and send me the doctor note or other information and I can only allow you to skip "one" lab. But if you miss more than

one lab because of COVID-19 quarantine, you have to schedule the time with me to do the experiment make up.

- (6) In the event of increased incidence and risk of COVID-19 that results in the university moving back to a shelter-in-place mode, the course instruction will transition to fully online. More instructions will be given at that time.

Required Materials

1. There is lab manual required for this course. Make sure to purchase the manual before class starts.
2. Scientific Calculator: bring every day unless you like doing math in your head.
3. In order to make sure you watch the video before coming to the lab, you need to write prelab assignment before coming to the lab. No prelab is not allowed to enter the lab.

Prerequisites

Credit for or Concurrent Enrollment in CHEM1143. Note: if you drop the lecture and are enrolled in the lab, then you must drop the lab as well. Lecture and lab do NOT follow the same sequence, so you will need to study both together and sometimes read ahead in the textbook to do well in the lab.

Attendance Policy

Attendance of the lab is mandatory. You need to watch the [lecture power point video](#) and [lab experimental video](#) before coming to the lab. Lab meets once per week and labs build upon each other. Students are expected to have read all materials prior to class and to have formulated their own datasheets and wrote prelab assignment for the day's work. If you have a dire excuse (extreme and verifiable illness, accident, or injury; extreme family emergency) and you have proof of this dire excuse (which must be provided to me), one lab may be missed without penalty. Missing more than one lab will result in an instructor drop with the grade of "F". Please plan on being present the entire lab period as well; you *may* get out early, but you should not assume that you will. Do NOT be late to class. Lab begins at our specific time and you are expected to be there on time.

Weekly Quizzes

- a. Quizzes will be given each week online in D2L and will cover material from past labs and the lab to be done on that given Monday. No make-up quizzes will be given for any reason. These quizzes will involve open-ended questions and calculations. LAB QUIZZES MUST BE COMPLETED ONLINE BEFORE CLASS, no exceptions.
- b. I will use Lockdown Browser and Respondus Monitor to monitor and record you during the quizzes if you take the quiz online.
- c. Lockdown Browser is NOT compatible with Chromebook Laptops or mobiles devices. iPad and regular PCs are the only devices that are compatible with such software.
- d. Although some of the quizzes will be administered online, treat them as though you were in a proctored classroom setting. That means not looking up answers online or in your notes. If you spend time searching for answers you may not complete the exam within the allotted timeframe.

Pre-lab Assignments

To ensure that you are actually ready to perform daily Experiments, you will turn in your prelab assignments for each lab day. Pre-lab assignments may include a simple list of

questions to answer, or tables that will be filled out, etc. Pre-lab assignments are part of your grade and are a pre-requisite for actually doing the lab that day. You must show me or the TA your prelab assignments to perform the lab, and if you do not have the prelab assignments, you will receive a “zero” for the prelab AND YOU WILL NOT BE ALLOWED INTO THE LAB, thus receiving a “zero” for the lab and the resulting lab report. This is not a group data sheet; every member of the group must devise a datasheet of their own. You may then “merge” them while working in the lab, but each person must be prepared to do the work.

Laboratory Data Sheet

Over the course of the semester you will be asked to write lab data sheets (or call lab reports). Below you will find descriptions of the sections that must be included in each report along with general requirements for writing the lab reports.

1. Handwritten reports will be accepted.
2. Calculations, equations, and structures may be handwritten (include only if relevant to the report).
3. All work must be proofread and checked for mathematical errors prior to submission. Both grammar and spelling count. Poorly written reports will be docked 10 points even if they are technically correct.
4. All reports are to be individually written, but you may talk with your lab partners and work together when discussing results and any problems/mistakes that may have occurred during the experiment.
5. Do not be afraid to rewrite/rework various sections of your reports to make them and the overall report coherent and informative. Do NOT wait until the night before to write your reports. Last minute work always receives a poorer grade.
6. **Late Data Sheet Policy:**
 - a. Reports are due at the beginning of the class schedule. If they are not turned in before class, then they are late. (Even if you are only 5 minutes late, the report is late, as are you.)
 - b. Late reports will lose 10% points from the score you earn on the report for each 24 hour period that it is late.
 - c. After 5 days late, reports will NOT be accepted and you will receive a “0/100”.
7. Reports are to contain the following sections:
 - a. **Data and Results:** The Results section is ALWAYS a combination of text PLUS your data sheet in the manual, with the text explaining the visual results. Each method usually has a result, which needs to be presented, and all methods/results together produce a final overall result of the experimental sequence. Make sure there is logic and cohesion to this section and that you actually walk the reader through the key results of the report.
 - b. **Calculation:** Make sure to show all the calculation you did in your data sheet, otherwise it is very challenge to trace back which step is wrong.

Cell Phones in Lab

You should never make or receive phone calls or texts during lab. Phones are a distraction that can result in lab accidents that are harmful to you, your lab partners, and your experiments. If I catch you on your phones playing, you will lose 1% from your overall grade in the lab. An exception to the “no cell phones in lab” policy may on occasion be made for data collection purposes. Cell phones can be of surprising use in documenting data; HOWEVER, should you spill anything caustic on your phone or contaminate your phone with potentially hazardous or infectious materials, YOUR PHONE WILL BE CONFISCATED AND TREATED AS WASTE (i.e., it will be destroyed and you will NOT be reimbursed for your

loss). Many phones will fit into a plastic baggie if you wish to protect your phone and use it in the lab. In all cases, cell phone use is to be limited and any loss of damage associated with cell phone use in the lab will be the fault and responsibility of the student, not the department or instructor.

University Code of Conduct

For university standards of conduct please refer to the MSU Student Handbook. In general, students are to attend all meetings of all classes; instructors may drop students for excessive absences, indifference, disruptive behavior, or failure to complete class assignments; students are prohibited from cheating, plagiarizing, or colluding. Students are expected to have read the Student Handbook.

Academic Dishonesty

Cheating, plagiarism, and collusion (as well as several other forms of conduct) are all strictly prohibited at MSU. Please read the MSU Student Handbook definitions of cheating, plagiarism, and collusion and MAKE SURE that you do not engage in any of these behaviors. If you are unclear on what may count as cheating, plagiarism, or collusion, please see the instructor or the Dean of Students. If I am even suspicious that your report is plagiarized, you will receive "0/100".

Instructor Drops

According to the 2012-2013 MSU Student Handbook, p. 47, "An instructor may drop a student any time during the semester for excessive absences, for consistently failing to meet class assignments, for an indifferent attitude, or for disruptive conduct." For the purposes of this course, "consistently failing to meet class assignments" includes consistently not turning in assigned work or turning in work that consistently receives a failing grade.

Intellectual Property

By enrolling in this course, the student expressly grants MSU a "limited right" in all intellectual property created by the student for the purpose of this course. The "limited right" shall include but shall not be limited to the right to reproduce the student's work product to verify originality and authenticity, and for educational purposes.

Grading

Students are expected to demonstrate their mastery of the material through the successful completion of all assignments, quizzes, and exams. Final grades will be calculated using the following distributions:

| | |
|--|------|
| Pre-lab Assignments (9 exp., 10pts each) | 10 % |
| Weekly Quizzes (9 weeks; 15 pts each, lowest drop) | 10 % |
| Lab video/lecture attendance | 10 % |
| Class Participation | 10 % |
| Lab Data Sheet (10 data sheets total; 100pts each) | 45 % |
| Lab Midterm/Final | 15 % |

Grades will be assigned on a strict 10% scale (100-90% = A; 89-80% = B; 79-70% = C; 69-60% = D; 59% and below = F).

Midterm Exams and Final Exam will be multiple-choice. All exams will be a significant test of your ability to understand both detail and context and use your knowledge to solve problems.

Specific information regarding what is to be included in each lab report will be given during lab lecture. This information will be in addition to the material in this syllabus.

Schedule of Experiments

Spring 2025 CHEM 1141 SCHEDULE

| Date | Experiment | Online video and Quiz Due at the BEGINNING of Lab | | | |
|---------------|---------------------------------------|---|----------------------|------------|-----------------|
| | | Online Videos | Prelab (PL) | Quiz (QZ) | Data Sheet (DS) |
| Jan 20 | MLK HOLIDAY—NO LAB | | | | |
| Jan 27 | Equipment and Safety Lab, Check-in | *ONLINE safety and AIP sheets must be signed, and turned in by Feb 3 Monday at 5 PM Safety Video must review before coming to the lab!!! | | | |
| Feb 3 | Exp #1 Density | Density lect, Density Lab | Exp #1 PL | Exp #1 QZ | Equip/Append DS |
| Feb 10 | Exp #2 Paper Chrom. | Paper Chrom lect. | Exp #2 PL and SDS | Exp #2 QZ | Exp #1 DS |
| Feb 17 | Exp #3 Use of Micropipets | Use of Micropipets lect. | Exp #3 PL | Exp #3 QZ | Exp #2 DS |
| Feb 24 | Exp #4 Mass Relationships | Mass Relat. lect, Mass Relat lab | Exp #4 PL | Exp #4 QZ | Exp #3 DS |
| Mar 3 | Exp #5 Prep of Alum | Alum lecture, Alum lab | Exp #5 PL | Exp #5 QZ | Exp #4 DS |
| Mar 10 | Spring Break | | | | |
| Mar 17 | MIDTERM EXAM | | | | |
| Mar 24 | Exp #6 Calorimetry | Calorimetry lect, Calorimetry lab | Exp #6 PL | Exp #6 QZ | Exp #5 DS |
| Mar 31 | Exp #7 Vit C | Vit C lect, Vit C lab | Exp #7 PL | Exp #7 QZ | Exp #6 DS |
| Apr 7 | No classes due to conference | | | | |
| Apr 14 | Exp #8 Alkaline Earths and Halogen | Alk Earth lect, Alk Earth lab | Exp #8 PL | Exp #8 QZ | Exp #7 DS |
| Apr 21 | Exp #9 Nonmetals | Nonmetals lect, Nonmetals lab | Exp #9 PL | Exp #9 QZ | Exp #8 DS |
| Apr 28 | Exp #10 VSEPR models CHECK OUT | VSEPR lect, VSEPR lab | Exp #10 PL | Exp #10 QZ | Exp #9 DS |
| May 5 | FINAL EXAM | | | | Exp #10 DS |