CHEM 1141 GENERAL CHEMISTRY LAB

Spring 2021 Syllabus Monday 5:30 pm -07:35 pm/7:40 pm -9:40 pm. Bolin 304

Course Instructor

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Office: Bolin 307G
Class Website: We will be using the Desire 2 Learn (D2L) platform accessible through the MSU portal.
Online office Hour: MW 10:00-12:00 am; 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.

Requirement in Class due to COVID-19

(1) During class, students must comply with MSU's requirement for wearing a face covering.
(2) If a student is not wearing a face covering because they do not have one or the mask is inappropriate. Go to the nearest office to acquire one and return to class.
(3) If a student is not wearing a face covering because they do not want to wear one. Do not remain in class if you will not wear a mask.
(4) If a student continues to refuse to wear a face covering, you have to leave the class.
(5) Failure to comply with the face covering requirement is considered a student conduct violation. Such violations may be escalated through the Office of Student Rights and Responsibilities. Any missed work due to the student refusal to wear a face covering is the responsibility of the student.

Class Format due to COVID-19

(1) This course has been planned as a fully face-to-face course for Spring 2021. The class will meet in its regularly scheduled room but will utilize social distancing and an assigned seating chart.
(2) I will post lecture power point file with audio included and online 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. There will be some online office hours announced through D2L. 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 video and listen to the online power point slides before coming to the lab. Lab meets once per week and labs build upon each other. Although you will be working in groups, it is not acceptable to miss class and make your lab partners do all of the work. 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. All text for all reports (e.g., title, introduction, etc.) must be typed. No handwritten reports will be accepted and hand annotations will be marked off. Additionally, all graphs and tables must be computer-generated.
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. **Separate Title Page:** Descriptive title, your name, the names of your lab partner(s), the date(s) the lab(s) were performed and a 100-word-or-less statement of purpose (the goal of the experiment or experimental series performed – what was done overall, what was done specifically, and why it was done).
    b. **Introduction:** This should be a brief section setting the stage for the rest of the report. What did you do and why (in general)? Why does the experiment matter? We have a purpose for the experiments, but are the experiments chosen the best ones to achieve our purpose? In a lab class this should not be a grand statement of cosmic significance, but it should set up why we are looking at the results and conclusions reported.
    c. **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.

d. **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.
e. **Conclusion:** The conclusion is not a rehash of the results, but rather summarizes the results and places them within a broader scientific context. You can use the conclusions highlight in the manual and make sure to answer all the questions list in the manual.
f. **Source of error:** This part describes problems encountered and their solutions, suggestions for further refinement of the experimental system, and usually recommends further research or changes to the protocols used; you should include such a commentary in your report.

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 2021 CHEM 1141 SCHEDULE

Date	Experiment	Homework Due at the BEGINNING of Lab[1]			
		Online Videos	Prelab (PL)	Quiz (QZ)	Data Sheet (DS)
Jan 11	NO LAB				
Jan 18	**MLK HOLIDAY—NO LAB**				
Jan 25	Equipment and Safety Lab, Check-in	*ONLINE safety and AIP sheets must be signed, and turned into the proper Dropbox folders on D2L by Sunday, January 25, at 5 PM Safety Video must review before coming to the lab!!!			
Feb 1	Exp #1 Density	Density lect, Density Lab	Exp #1 PL	Safety QZ, Exp #1 QZ	Equip/Append DS
Feb 8	Exp #2 Paper Chrom.	Paper Chrom lect.	Exp # 2 PL and SDS	Exp #2 QZ	Exp #1 DS
Feb 15	Exp #3 Mass Relationships	Mass Relat. Lect, Mass Relat lab	Exp #3 PL	Exp #3 QZ	Exp #2 DS
Feb 22	Exp #4 Prep of Alum	Alum lecture, Alum lab	Exp #4 PL	Exp #4 QZ	Exp #3 DS
Mar 1	**MIDTERM EXAM**				Exp #4 DS
Mar 8	No lab				
Mar 15	Exp #6 Calorimetry	Calorimetry lect, Calorimetry lab	Exp #6 PL	Exp #6 QZ	
Mar 22	Exp #7 Vit C	Vit C lect, Vit C lab	Exp #7 PL	Exp #7 QZ	Exp #6 DS
Mar 29	Exp #8 Alkaline Earths and Halogen	Alk Earth lect, Alk Earth lab	Exp #8 PL	Exp #8 QZ	Exp 7 DS
Apr 5	Exp #9 Nonmetals	Nonmetals lect, Nonmetals lab	Exp #9 PL	Exp #9 QZ	Exp #8 DS
Apr 12	Exp #10 VSEPR models CHECK OUT	VSEPR lect, VSEPR lab	Exp #10 PL	Exp #10 QZ	Exp #9 DS
Apr 19	**FINAL EXAM**				Exp #10 DS

[1] LAB QUIZZES MUST BE COMPLETED ONLINE BEFORE CLASS, no exceptions.