

CHEM 1243 GENERAL CHEMISTRY

Spring 2024 Syllabus MWF 8:00 am -8:50 am

Course Instructor

Dr. Fu-Cheng Liang (George), PhD

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Office: Pierce Hall 210

Class Website: D2L website

Homework: Achieve in D2L

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

Purpose of the Syllabus

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.

Prerequisites

Minimum Grade of D on Math 1233, Math 1534, Math 1634 and Chem 1143.

Required Textbook and Materials

- (1) Chemistry 2e – OpenStax (<https://openstax.org/details/books/chemistry-2e>)
- (2) ACS General Chemistry Study Guide, 2nd ed. (\$27 purchase from Chemistry office Pierce Hall)
[REQUIRED – you will be expected to actually read the text and do the problems, so you will need this book]
- (3) Optional textbook: Brown, LeMay, Bursten, Murphy, Woodward and Stoltzfus; *Chemistry: The Central Science*: 14rd ed. 2018 Pearson.

A scientific calculator of some kind is required. Bring it every day.

Computer (laptop/desktop, not including Chromebook) is required for online session.

Webcam is required for this class, please set it up as early as possible.

Class Format due to COVID-19

- (1) Face covering is recommended, but not required.
- (2) 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 and I will implement “livestreaming” our face-to-face classroom sessions. But you still have to show up for the quizzes and exams, because I will not give the online test.
- (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) 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.

Lecture Attendance Policies

1. Lecture attendance is required; it is not optional. You will only learn if you come to class.
2. Lecture will begin on time at 8am; students are expected to be in their seats, ready to begin, and will need to sign in before the class starts.
3. Students are expected to have read all required materials before walking into class.

4. If you miss class, it is up to you to get notes from another student as I will not provide them.
5. Students with excessive absences may be instructor dropped from the course with an "F".
6. No make-ups will be given for missed quizzes or assignments due to lack of attendance, regardless of the reason you did not attend.
7. No make-ups will be given for exams; however, under special circumstances (see section on exams), consideration will be given and a substitute grade offered.
8. No one is allowed to miss the final. Missing the final exam will result in an "F" for the course.

To monitor attendance, a seating chart or attendance sign-in sheet will be kept. Students who sign-in for students that are not present will be referred to the Dean of Students. Because quizzes and assignments cannot be made-up and because exams are written off of my lectures, attendance of the lecture is critical. If you need to leave class early, it must be for a good reason and you must tell me before class begins or you will be marked absent. Do not email me regarding lecture absences or bring doctor's notes, etc. if you miss lecture. If you miss lecture, it is up to you to find out from another student what was missed and obtain notes from other students. For further information on Class Attendance policies, see the MSU Student Handbook, available online through the Student Life section of the MSU website.

Late Assignment Policies

1. All assignments are to be turned in to the instructor prior to the beginning of class or electronic deadline on the day that the assignment is due.
2. Assignments are posted or assigned in advance and due dates will be clearly indicated; there is no excuse for not turning in homework on time. It is YOUR responsibility to pay attention to deadlines.
3. No late assignments will be accepted from any student for any reason.
4. Assignments should be stapled (if necessary) BEFORE they are turned in to the instructor.

Quiz Policies

1. Quizzes will be given periodically throughout the semester except for the day on which exams are given.
 - a. Each quiz will be worth 15 points and there will be a total of 10 quizzes.
 - b. Quizzes will be physically handed out and given at the very beginning of the class period. If you come late, you will NOT be allowed to take the quiz.
 - c. You will have no more than 10-15 minutes to take each quiz.
 - d. Quizzes may include problems directly from the lecture power point slide. Problems will be representative of what you may expect on the exams.
 - e. Disability students must take their quizzes under the same conditions as all other students.
 - f. There will be no make-ups for missed quizzes.
 - g. I will use Lockdown Browser and Respondus Monitor to monitor and record you during the quizzes if you take the quiz online.
 - h. 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.
 - i. Although some of the quizzes will be administered online if needed, 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.
2. The lowest quiz grade will be dropped to allow for one absence or one "bad day". If you miss more than one quiz, the resulting zeros will be incorporated into your quiz score.

Exam Policies

1. There will be 3 (three) midterms and 1 (one) comprehensive final.
 - a. Exam dates are listed on the Lecture Schedule and will not be moved.

- b. No make-up midterms will be offered if the midterm is missed, regardless of the reason.
 - c. Students are not allowed to miss the final exam. Failure to take the final exam will result in an F in the course. All graduating seniors are required to take the final exam.
2. Students with a legitimate, excusable reason for missing the midterm will be given consideration. A make-up exam will not be offered, but a substitute score based on the comprehensive final will be used to replace the zero received.

Exams	Cover Chapters	Date
Midterm Exam #1	Chapter 11-14	Feb 19, 2024
Midterm Exam #2	Chapter 15-17	Apr 3, 2024
Midterm Exam #3	Chapter 19-21	May 3, 2024
Final Exam	ACS exam	May 8, 2024

Excusable reasons for missing an exam include the following:

1. Extreme and verifiable illness (colds and elective procedures don't count and you must have a doctor's note verifying you could not come the actual day of the exam)
2. If you are quarantine because of COVID-19, students must report to MSU and provide the letter either from Office of Student Rights and Responsibilities or medical doctor.
3. Accident or injury (must present verification, e.g., tow slip, emergency room documentation)
4. MSU sanctioned event (you must be an active participant, not support staff)
5. Extreme family emergency (e.g., funeral the day of the exam; must show proof; immediate family only – best friends, great aunts, etc. don't count)
6. Students **MUST** notify me, the instructor, **PRIOR** to the start of the exam to receive consideration for an excused absence. If you are physically unable to notify me, then have a friend or family member notify me. Notifying me after the fact will result in an unexcused absence and a zero for the exam.

Inexcusable reasons for missing an exam include the following:

1. Scheduling doctor/dentist, therapy or other appointments for the day/time of the exam (possible exception: court dates). Note: you can control when your appointments are even if you are told "this is the only time you can come in", so scheduling conflicts are not an excuse to miss the exam.
2. Failure to show up (missed bus, forgot you had an exam, slept in, car problems, etc.). Emphasis: do NOT sleep through exams – you are all adults and you should act like it.
3. Weather; if MSU is open, then you must be here, so if bad weather is forecast, prepare for it. It is your responsibility to check the MSU website for information on weather closures or delays.
4. Congested exam schedule or overlapping classes
5. Failure to obtain babysitter or caregiver
6. Work schedule conflict

In general, none of these excuses will be accepted for missed exams as all of them stem from a lack of responsibility on the part of the student to maintain control over their own schedules. You know exactly when your exams are scheduled, and you should make every effort to take them.

Absolutely no electronic devices of any kind may be used during exams. All exams are closed book and will be monitored for cheating. If you are caught doing anything suspicious, your exam will be taken away from you and you will receive an automatic zero for the exam.

University-Sponsored Teams and Organizations

All members of in-season sports teams or other campus organizations who will be missing class because of university sanctioned events **MUST** present to me a written statement on university letterhead and signed by a university official indicating those dates that will be missed because of travel

or participation in the university-sponsored event. Athletics documentation must be presented to me within the first 2 weeks of the beginning of the semester. Other documentation (such as for theater, etc.) must be presented to me at least one week prior to the time that will be missed.

Students with Disabilities

Students with disabilities are required to register with Disability Support Services (DSS) before classroom accommodations can be provided. The instructor then needs to be notified by the student of the nature of these accommodations. This notification will take the form of an official letter obtained from DSS by the student and given to the instructor. Every effort should be made to provide me with this documentation within the first 2 weeks of the semester to avoid losing accommodations because you failed to provide proper notification in a timely manner. It is always the responsibility of the student to arrange accommodations with DSS. Students with disabilities must still take their exams on the same day as the rest of the class.

Course Policies Regarding Disruptive Behavior

1. Do not walk through the classroom or leave once class has begun (exception: sudden illness)
2. Do not talk during lecture except to ask questions of the instructor; talking to your friends, even to ask a question, is disruptive and will prevent other students in the class from hearing me
3. Do not engage in disruptive or disrespectful behavior
4. Do not cheat on exams or assignments (see Student Handbook)
5. Do not play games on your electronic devices or play with your social media sites, do homework for other classes, read books or newspapers, sleep, listen to music, etc. during the lecture
6. Do not eat or drink in class unless you can do so quietly; no one needs to listen to crinkling food wrappers or worse, listen to you chew or slurp
7. Disruptive students will be given one (1) verbal warning to improve their behavior. Second offenders will be asked to leave the classroom and will be referred to the Dean of Students. Abusive students will be dismissed from the class permanently.

Policy on Electronic Devices [READ THIS TWICE]

1. Turn off or silence (note: vibrate is not the same as silent) all cell phones, pagers, music players/headphones, and other electronic devices that make noise or have the potential to disrupt the class before you walk into the room.
2. NO cell phones are permitted to be out and/or in my (or your) sight in this class.
3. YOU MAY NOT TAKE PHOTOS OF MY SLIDES. These slides are copyrighted.
4. If your phone is out and/or in sight and/or you are caught using it, you will be asked to put it away and you will lose 1% from your final lecture grade in the course for each violation.
5. Should your phone ring/vibrate during class, you are dismissed for the day and you will lose 1% from your final lecture grade in the course for each violation.
6. If you want to use your phone to record the lecture, it must be placed at the front of the room and out of your reach.
7. No laptops/tablets are allowed AT ALL. Computers are distracting and you will learn more by writing.

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. Plagiarism hurts everyone and is never acceptable.

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.

Student Resources

To help achieve the vision of "STEM leadership--Diverse scholarship" the McCoy College of Science, Mathematics and Engineering (MCOSME) students benefit from the numerous offices and student services available on the MSU campus. Below are links to these resources and information on what they provide. https://msutexas.edu/academics/scienceandmath/student_resources.php

Final Grade Assessment

Final grades will be calculated using the following distributions:

Midterm Exams (3 @ 100pts each)	55%
Quizzes (10 @ 15pts each; lowest dropped)	15%
Homework	10%
Attendance	10%
Final Exam (ACS 100pts)	10%

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

Important: Based on experience, students with a failing quiz average at the time of the first midterm who then fail Midterm 1 go on to get Ds or Fs in the class. If you are struggling, it is recommended that you come see me EARLY in the semester. I cannot help you if you do not make the effort to come see me.

Overall, final course grades will be based on the following scale: A (90% or higher); B (80-89.9%); C (70-79.9%); D (60-69.9%); F (59.9% or less). If you do not get 90% or better on every assignment, you should not expect to get an A in the course. There will be no extra credit offered or adjustments made to the class.

Lecture Schedule

<i>Date</i>	<i>Topic</i>	<i>Date</i>	<i>Topic</i>
Jan 17	Course Introduction	Mar 13	Spring Break
Jan 19	Cp. 11 Liquids and Intermolecular Forces	Mar 15	Spring Break
Jan 22	Cp. 11 Liquids and Intermolecular Forces	Mar 18	Cp. 16 Acid-Base Equilibria
Jan 24	Cp. 11 Liquids and Intermolecular Forces	Mar 20	Cp. 17 Additional Aspects of Aqueous Equilibria
Jan 26	Cp. 11 Liquids and Intermolecular Forces	Mar 22	Cp. 17 Additional Aspects of Aqueous Equilibria
Jan 29	Cp. 13 Properties of Solutions	Mar 25	Cp. 17 Additional Aspects of Aqueous Equilibria
Jan 31	Cp. 13 Properties of Solutions	Mar 27	Cp. 17 Additional Aspects of Aqueous Equilibria
Feb 2	Cp. 13 Properties of Solutions	Mar 29	Easter Break
Feb 5	Cp. 13 Properties of Solutions	Apr 1	Cp. 17 Additional Aspects of Aqueous Equilibria
Feb 7	Cp. 14 Chemical Kinetics	Apr 3	Exam 2: Chapters 15-17
Feb 9	Cp. 14 Chemical Kinetics	Apr 5	Cp. 19 Chemical Thermodynamics
Feb 12	Cp. 14 Chemical Kinetics	Apr 8	Cp. 19 Chemical Thermodynamics
Feb 14	Cp. 14 Chemical Kinetics	Apr 10	Cp. 19 Chemical Thermodynamics
Feb 16	Cp. 14 Chemical Kinetics	Apr 12	Cp. 19 Chemical Thermodynamics
Feb 19	Exam 1: Chapters 11-14	Apr 15	Cp. 20 Electrochemistry
Feb 21	Cp. 15 Chemical Equilibrium	Apr 17	Cp. 20 Electrochemistry
Feb 23	Cp. 15 Chemical Equilibrium	Apr 19	Cp. 20 Electrochemistry
Feb 26	Cp. 15 Chemical Equilibrium	Apr 22	Cp. 20 Electrochemistry
Feb 28	Cp. 15 Chemical Equilibrium	Apr 24	Cp. 21 Nuclear Chemistry
Mar 1	Cp. 16 Acid-Base Equilibria	Apr 26	Cp. 21 Nuclear Chemistry
Mar 4	Cp. 16 Acid-Base Equilibria	Apr 29	Cp. 21 Nuclear Chemistry
Mar 6	Cp. 16 Acid-Base Equilibria	May 1	Cp. 21 Nuclear Chemistry
Mar 8	Cp. 16 Acid-Base Equilibria	May 3	Exam 3: Chapters 19-21
Mar 11	Spring Break		

COMPREHENSIVE ACS FINAL EXAM: Wednesday, May 8, 2024 from 8:00-10:00am

NOTE: GRADUATING SENIORS ARE REQUIRED TO TAKE THE FINAL. Seniors do not get a pass just because they are graduating, and if you need a specific grade to ensure that you graduate, you need to start working on that grade on the first day of class.