Freshman Chemistry II
CHEM 1212

The instructor reserves the right to make changes or corrections to this syllabus at any time. Students will be notified when any changes are made by email or eLC announcements.

Course Overview

Description

Chemistry 1212 is a three-credit hour course that will have lectures delivered asynchronously (online) with a once per week synchronous (face to face) recitation session. Chemistry 1212L is the companion one credit hour lab course and must be taken concurrently, unless you already have credit for the lab course. Chemistry 1212L is being taught with weekly alternating synchronous and asynchronous labs. CHEM 1212/1212L are freshman chemistry courses that are comparable to similar sequences for science majors taught at major state universities in the country. This course uses an American Chemical Society Examinations Institute standardized exam as the final.

Instructor

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Course Information

Recorded lectures will be delivered asynchronously on eLC, and you may watch them on your own schedule. On Monday or Wednesday each week there will be a mandatory face-to-face recitation session during the regularly scheduled class time. Students will be assigned to a recitation session based on their lab schedule.

Textbook (e-text purchased through eLC)

General Chemistry: Principles and Modern Applications, 11th edition, Ralph H. Petrucci, F. Geoffrey Herring, Jeffry D. Madura, Carey Bissonnette

A loose-leaf print copy can be purchased for $44.99.

Other Required Materials:

Any non-programmable, scientific calculator such as the Ti-3x series or the Casio ClassWiz series (The TI-36x Pro is recommended).

Learning Outcomes

1. Demonstrate the ability to solve scientific problems by following logical procedures based on well-established scientific principles.
2. Relate microscopic theories to macroscopic observations using chemical principles to explain observable phenomena.
3. Illustrate the principles of kinetics and thermodynamics as applied to rates and equilibrium positions of chemical reactions.
4. Use quantitative measures of solution concentration in describing acid-base, solubility, and electrochemical principles of aqueous solutions.
5. Interpret the value of logarithmic functions in the determination of rate constants; half-lives for radioactive isotopes; and solution concentrations of specific analytes (i.e., pH measurements to determine hydrogen ion concentrations).
6. Analyze nuclear processes such as radioactivity, fission, and fusion in terms of kinetic and thermodynamic principles.
7. Apply the principles of equilibrium to aqueous systems using LeChâtelier's Principle to predict the effects of concentration, pressure, and temperature changes on equilibrium mixtures.

Course Requirements and Grading

Course Coverage

These chapters will be covered in CHEM 1212:

Chapter 12: Intermolecular Forces: Liquids and Solids
Chapter 20: Chemical Kinetics
Chapter 13: Spontaneous Change: Entropy and Gibbs Energy
Chapter 14: Solutions and Their Physical Properties
Chapter 15: Principles of Chemical Equilibrium
Chapter 16: Acids and Bases
Chapter 17: Additional Aspects of Acid-Base Equilibria
Chapter 18: Solubility and Complex-Ion Equilibria
Chapter 19: Electrochemistry
Chapter 25: Nuclear Chemistry

Course Assignments

Recitation Sessions

Mandatory recitation sessions will be held each **Monday and Wednesday** during the scheduled class time. **Students must be present to receive credit for the worksheet.** During the recitation sessions, students will work in small groups and recitation worksheets will be due at the end of the session. The worksheets will be converted to a PDF file and uploaded to Gradescope. Instructions for conversion of the worksheets to a PDF file and uploading to Gradescope are in separate documents and are available on eLC. There will be 13 recitation sessions and the one with the lowest score will be dropped. The recitation attendance and worksheets will be worth 40 points.

Lecture Questions

The instructor will provide worksheets to accompany the twice weekly video lectures during the semester and they will be worth 70 points. The question sets will be available at 8:00 a.m. and will be due at noon the following day. **Late assignments will not receive credit.**

Everyone in the course will receive a portion of the Lecture Question points based on your total percentage. If you score 90% of the credit for the lecture questions, you will earn 90% of 70 points (or 63 points) toward your final grade.

Academic Honesty Expectations: You must respond to your own questions.

Reading Checks

Before beginning a chapter in class, you will need to complete a reading check that assesses basic mastery of the material. Reading checks will be delivered on MasteringChemistry and will be available on Thursdays at 5:00 p.m. and will be due on Sundays at 11:59 p.m. There will be a total of **sixteen** reading checks worth **two** points each. The reading check with the lowest score will be dropped at the end of the semester. No credit will be received for late Reading Checks.

Five attempts will be allowed for each question in the Reading Check. There is a 5% penalty for each incorrect attempt, so it is in your best interest to work the problems as you read the chapter.

Academic Honesty Expectations: You may work in groups on reading checks; however, each of you must do your own problems.

Progress Checks

Progress checks are timed assignments designed to test your understanding of the course materials and simulate exam conditions. The point value of progress checks has been intentionally set at a low value so that you can stumble on the progress check and not severely hurt your grade in CHEM 1212. It is much better to find out what you're struggling with on the progress check instead of the exam.

Progress checks will open on Fridays at 5:00 p.m. and will be due on Mondays at noon. **Be Aware:** Opening the progress check before it is due to look at the questions commits you to completing the assignment. The timer cannot be stopped or reset. There will be a total of **sixteen** progress checks worth **four** points each. The lowest progress check will be dropped.

Academic Honesty Expectations: You are expected to work on your own when completing the progress checks. You should not use any outside resources. This is your opportunity to see what you need to work on before the exam. You should not share or post progress check questions for other students while the progress check is open.

Suggested Exercises and Practice Quizzes

Suggested practice problems for each chapter will be posted. I recommend that you do these with your available resources to help you build skills and master the material.

There are practice quizzes in your Study Area on MasteringChemistry. These are a great way to test yourself without the pressure of earning points. I highly recommend that you do the practice quizzes without any resources to prepare for Progress Checks and exams.

Exams

Four (4) 90-minute, 200-point examinations will be given on Tuesday evenings. **There will be no makeup exams.**

- Exams will be administered on eLC using Respondus Monitor. A working camera and microphone are required for usining Respondus Monitor.

- Your exam grade with the lowest percent value will be replaced with your final exam percentage value if it is higher.

Exam Schedule:

Exam 1	Tuesday, 7:00-8:30 p.m.	February 9, 2021
Exam 2	Tuesday, 7:00-8:30 p.m.	March 2, 2021
Exam 3	Tuesday, 7:00-8:30 p.m.	April 6, 2021
Exam 4	Tuesday, 7:00-8:30 p.m.	April 27, 2021
Final Exam	Thursday, 7:00-8:50 p.m.	May 6, 2021

Final Exam

The final exam will be administered on Thursday, May 6. The final exam will be the **Full Year General Chemistry Exam from the American Chemical Society Examinations Institute.** This multiple-choice exam has a total value of 300 points in the course. Remember, if your percentage grade on this exam is higher than your lowest exam percentage grade, this percentage grade will replace it. It is in your best interest to do as well as you can on this exam.

Course Grades

Course grades in CHEM 1212 will be calculated based on these components:

Assignment	**Points**
Four exams	800
Final Exam (ACS)	300
Reading Checks	30
Progress Checks	60
Lecture Questions	70
Recitation Worksheets and Attendance	40
Total	**1300**

If you score below 50% on the final exam, you will receive an 'F' for the course. If you score 50% or higher on the final exam, your final grade will be based on the total points earned out of -- total possible points:

A	= 1170 to 1300	90%
A -	= 1144 to 1169.9	88%
B+	= 1118 to 1043.9	86%
B	= 1040 to 1117.9	80%
B-	= 1014 to 1039.9	78%
C+	= 975 to 1013.9	75%
C	= 884 to 974.9	68%
D	= 650 to 883.9	50%
F	= 0 to 649.9	

Final grades will not be adjusted (i.e., "curved") at the end of the semester. Course letter grades are delivered via Athena and appear when they are posted and released by the Registrar's Office.

Policies and Procedures

Communication

The instructor will communicate with the class in two ways: (1) email and (2) news post on the course eLC site. You may login to eLC at http://elc.uga.edu using your UGA myID and password. It is highly recommended that you forward you eLC e-mail to your preferred e-mail address. Remember that official communication is through eLC e-mail and/or UGA mail. It is your responsibility by UGA policy to check both on a daily basis.

The eLC site will also be used to store and deliver lecture videos, lecture slides, exam resources, general handouts and other documents. You will also find instructions covering Gradescope and MasteringChemistry.

Email Etiquette

The course instructor receives a large number of student emails per day. To ensure your email is answered as quickly as possible:

- Do not send email to eLC accounts. Instructors may be reached via their primary email addresses.
- Instructors will not respond to questions that are answered in the course syllabus or postings on eLC.
- Please allow at least **48 hours** for a response due to the high volume of emails.
- Your emails must be both courteous and coherent. If you would not say it in person, don't write it in an email.
- Experience has demonstrated that it is not effective to answer homework or concept questions via email. In order to receive help concerning class work or homework you must visit your instructor during regularly scheduled office hours.

What about lab (CHEM 1212L)?

CHEM 1212 and 1212L are individual courses that are administered and graded separately. You will receive separate and independent grades for these two courses. However, CHEM 1212 and 1212L must be taken concurrently. All students must be registered for both lecture and lab. (A small number of students may have already completed the lecture or lab when rules allowed that. Students who have taken CHEM 1212 and 1212L previously, and received grades of "I", should not register for the course(s) a second time because the earlier "I" grade will automatically be changed to an "F".)

Withdrawal Policy

The last day to withdraw from CHEM 1212 is Tuesday, March 23rd, 2021. A grade of 'W' is assigned to all withdrawals made prior to the withdrawal deadline, irrespective of performance in the course. Withdrawal is accomplished through Athena. Go to the withdrawal section of Athena and follow the instructions.

CHEM 1212 and CHEM 1212L are corequisite courses. You may not remain enrolled in CHEM 1212L if you withdraw from CHEM 1212. There are no exceptions to this policy. After the withdrawal deadline, no student may withdraw from CHEM 1212/1212L except in the case of an approved hardship withdrawal that is authorized by the Office of Student Services (http://reg.uga.edu/policies/withdrawals).

Incomplete Policy

An incomplete grade, "I", may be assigned to students that are passing CHEM 1212 but are unable to complete all university coursework during the current semester due to unforeseen personal and/or medical

circumstances. An incomplete grade is not assigned to students who are able to complete their university coursework but choose not to complete chemistry due to poor performance. In order to receive an incomplete in the class you must meet with your instructor and sign a contract which stipulates the terms and conditions of all university sanctioned incompletes.

Disability Accommodations

Students with a disability that are seeking classroom or testing accommodations must register with the Disability Resource Center (DRC). More information can be found at https://drc.uga.edu/site/content_page/register-for-services.

Academic Honesty

As a University of Georgia student, you have agreed to abide by the University's academic honesty policy, "A Culture of Honesty," and the Student Honor Code. All academic work must meet the standards described in "A Culture of Honesty" found at: www.uga.edu/honesty. Lack of knowledge of the academic honesty policy is not a reasonable explanation for a violation. Questions related to course assignments and the academic honesty policy should be directed to the instructor.

FERPA Notice

The Federal Family Educational Rights and Privacy Act (FERPA) grants students certain information privacy rights. See the registrar's explanation at https://osas.franklin.uga.edu/ferpa-and-privacy FERPA allows disclosure of directory information (name, address, telephone, email, date of birth, place of birth, major, activities, degrees, awards, prior schools), unless a https://reg.uga.edu/_resources/documents/imported/FERPARequestForRestriction.pdf is submitted to the Registrar's Office.

Mental Health and Wellness Resources

If you or someone you know needs assistance, you are encouraged to contact Student Care and Outreach in the Division of Student Affairs at 706-542-7774 or visit https://sco.uga.edu. They will help you navigate any difficult circumstances you may be facing by connecting you with the appropriate resources or services.

UGA has several resources for a student seeking mental health services (https://www.uhs.uga.edu/bewelluga/bewelluga) or crisis support (https://www.uhs.uga.edu/info/emergencies).

If you need help managing stress anxiety, relationships, etc., please visit BeWellUGA (https://www.uhs.uga.edu/bewelluga/bewelluga) for a list of FREE workshops, classes, mentoring, and health coaching led by licensed clinicians and health educators in the University Health Center. Additional resources can be accessed through the UGA App.

Coronavirus Information for Students

Face Coverings

Effective July 15, 2020, the University of Georgia—along with all University System of Georgia (USG) institutions—requires all faculty, staff, students and visitors to wear an appropriate face covering while inside

campus facilities/buildings where six feet social distancing may not always be possible. Face covering use is in addition to and is not a substitute for social distancing. Anyone not using a face covering when required will be asked to wear one or must leave the area. Reasonable accommodations may be made for those who are unable to wear a face covering for documented health reasons. Students seeking an accommodation related to face coverings should contact Disability Services at https://drc.uga.edu/.

DawgCheck

Please perform a quick symptom check each weekday on DawgCheck—on the UGA app or website—whether you feel sick or not. It will help health providers monitor the health situation on campus: https://dawgcheck.uga.edu/

What do I do if I have symptoms?

Students showing symptoms should self-isolate and schedule an appointment with the University Health Center by calling 706-542-1162 (Monday-Friday, 8 a.m.-5 p.m.). Please DO NOT walk-in. For emergencies and after-hours care, see https://www.uhs.uga.edu/info/emergencies.

What do I do if I am notified that I have been exposed?

Students who learn they have been directly exposed to COVID-19 but are not showing symptoms should self-quarantine for 14 days consistent with Department of Public Health (DPH) and Centers for Disease Control and Prevention (CDC) guidelines. Please correspond with your instructor via email, with a cc: to Student Care & Outreach at sco@uga.edu, to coordinate continuing your coursework while self-quarantined. If you develop symptoms, you should contact the University Health Center to make an appointment to be tested. You should continue to monitor your symptoms daily on DawgCheck.

How do I get a test?

Students who are demonstrating symptoms of COVID-19 should call the University Health Center. UHC is offering testing by appointment for students; appointments may be booked by calling 706-542-1162.

UGA will also be recruiting asymptomatic students to participate in surveillance tests. Students living in residence halls, Greek housing and off-campus apartment complexes are encouraged to participate.

What do I do if I test positive?

Any student with a positive COVID-19 test is **required** to report the test in DawgCheck and should self-isolate immediately. Students should not attend classes in-person until the isolation period is completed. Once you report the positive test through DawgCheck, UGA Student Care and Outreach will follow up with you.