CHM 2046: General Chemistry and Quantitative Analysis

Lectures MWF 11:45AM – 12:35AM (Period 5) in CLB C130

InstructorsLeslie J. Murray, CLB 410BEmail:email through Canvas only

Office hours: W 10:30–11:30 AM R 9–10AM; F 1:30–2:30PM

Class Numbers 11133, 11134, 11162, 11163, 11164, 11165, 11166, and 11167

Teaching Assts. Subhadeep Bera, Will Buratto, and Juan Torres Gonzalez

email through Canvas only

DiscussionsTuesday classes corresponding to section numbers above meet with a Teaching Assistant (TA) and

will start on **August 27**.

Course Objective To introduce general chemistry concepts and problem solving skills and their relationship to advanced topics in science and engineering.

Textbook 1. The Molecular Nature of Matter and Change (8th edition), by Martin Silberberg, McGraw Hill

2. Any other edition of the Silberberg book, also available as a Smartbook

Disclaimer The instructors reserve the right to make changes or corrections to this syllabus at any time. Students will be notified when any change is made by an announcement on Canvas.

Homework Students are strongly advised to do the problems found at the end of the chapters, although these

problems will not be graded.

Exams & QuizzesThree (3) announced quizzes will be administered during the Tuesday discussion periods. Each quiz will be worth 50 points. You must take quizzes with your respective TA <u>only</u> and during the discussion period for which you are registered. Quizzes can cover content from prior lectures.

The three (3) in-semester exams are cumulative (*i.e.*, cover all prior lectures and associated content in the textbook). Room assignments will be posted on Canvas prior to each exam. Dates and times of exams are given below. The in-semester exam with the lowest score will be halved, *e.g.*, if your three scores are 100, 180, and 160, then they will contribute 180+160+(100/2) = 390 out of a possible 500 points (200 + 200 + 200/2).

You will need to bring or know the following for exams:

- (i) A non-graphing, non-programmable, scientific calculator (log, ln, root, exponent functions)
- (ii) Pencil(s)
- (iii) Your Class Number
- (iv) UFID card (i.e., Gator1 card)

No notes, papers, cell phones, or other electronic devices can be in view during exams. The use of electronic devices (including phones, computers, and tablets), notes, and the textbook during a quiz or exam are strictly prohibited. **Use of non-permitted items will result in <u>zero</u> points awarded for that quiz or exam without exception.**

Important Dates	Event	Date	Time
	Quiz #1	Tuesday, September 10	@ registered discussion section
	Quiz #2	Tuesday, October 8	@ registered discussion section
	Quiz #3	Tuesday, November 5	@ registered discussion section
	Exam #1	Thursday, September 19	8:20PM – 10:10PM
	Exam #2	Monday, October 21	8:20PM – 10:10PM
	Exam #3	Monday, November 18	8:20PM – 10:10PM
	Final Exam	Monday, December 9	5:30PM – 7:30PM

Absence from Exam and quiz absences will be handled in accordance with official UF academic regulations. Make-

Exams or Quizzes and Conflict/Make-up Policy

up quizzes and conflict/make-up exams will be administered only if absence from the exam or quiz is deemed by <u>Dean of Students Office</u>'s staff to meet the <u>UF's official Absence & Absentee Policy</u>. If your documentation is deemed insufficient to excuse your absence you will receive a zero on the missed exam or quiz.

Further clarification for two different types of situations is given below.

- (1) Conflicts with other events: Acceptable reasons to miss a scheduled exam or quiz include conflicting evening exams in courses with higher course numbers, religious holidays, military obligations, special curricular requirements (e.g., attending professional conferences), or participation in official UF-sanctioned activities (e.g., athletic competitions). For more information on such absences, see the UF Policy regarding absences. If you must be absent for an exam due to a conflict known in advance, you must provide the DSO with appropriate documentation. DSO staff will then notify the instructors if your absence satisfies UF's Absence & Absentee Policy. Your instructor must receive notifications from the DSO or appropriate body at UF (e.g., UAA representative) at least one week in advance for predetermined absences to the scheduled exam and an early conflict exam will be scheduled for you.
- (2) Emergency or sudden illness: If you are absent for an exam due to an unpredicted documented medical reason or family emergency, you must email your TA as soon as possible and preferably before the exam/quiz that will be missed. You are then required to provide DSO with appropriate documentation to satisfy the Attendance & Absence Policy for that missed date, and DSO staff will then notify the instructors. If the DSO staff concur that your provided documentation satisfies the UF's policy on absences, a make-up exam or quiz will be scheduled as soon as reasonably possible but prior to the end of the semester.

N.B.: Medical personnel only provide documentation if you are examined while you are ill.

Regrade Or Score Change Requests

All queries regarding exam, quiz, or other scores must be made within two weeks of the scheduled exam date without exception. After this two-week period, scores will be considered final. Bubbling errors (i.e., correctly filling in the answer circles) will not be negotiated, and a 5 point penalty will be applied for failure to bubble in a form code, UFID, or not taking the exam in the assigned room. Concerns regarding points awarded should first be addressed to your TA. The TA will notify the instructor(s) and the student's course record will be amended if the student's concerns are valid. If the student is dissatisfied with the TA's response (e.g., the TA does not agree that more points should have been awarded), the student may request a regrade of the exam or quiz by the instructor. In this scenario, the entire exam will be regraded and not only a specific question; that is, the points awarded on questions unrelated to the student concerns can also change. Submitting an exam or quiz for a regrade means that you agree to accept the score awarded from the regraded exam as the score of record even if it is lower than the initially awarded score.

Canvas

UF's elearning platform, Canvas, can be found at http://elearning.ufl.edu. You will find the syllabus, gradebook, files, class announcements, and other pertinent info for the course. Check Canvas often to ensure that you do not miss important announcements and that your gradebook is accurate.

Discussion Worksheets

You can earn points by completing worksheets (about 9 worksheets for the semester) in the discussion sections (10 points per worksheet). There are more than 50 available points, but you are capped at 50 points. No make-up will be provided for Discussion worksheets.

Discussion

The discussion sections meet every Tuesday and will contain weekly worksheets that will count toward your overall grade. You must go to your assigned discussion section to receive credit for the worksheet. The worksheet will be posted to Canvas (http://elearning.ufl.edu) on the preceding Monday afternoon. You are encouraged to work on the worksheet in groups (2–3 students) before you come to discussion. Any queries regarding assigned grades must be addressed within a week of posting grades to canvas. If you missed a discussion section but present your completed worksheet to your TA within one week of that discussion period, you will receive half credit. Any

	worksheet that is tu	rned in later than on	e week after the disc	cussion date is worth	n zero points.	
Grades	Grades will be based	d on a total of 1000 p	oints with the follow	ving division:		
	In-semester exams: 500 points (two best scores & ½ of lowest) Quizzes: 150 points (3 x 50 points) Worksheets: 50 points Final Exam: 300 points Total: 1000 points				½ of lowest)	
	For information on UF's Grading Policy, see: https://registrar.ufl.edu/grades/gradepolicy.html and https://student.ufl.edu/minusgrades.html Course grades will be assigned with the following percentages used for guidance:					
	90-100% = A	83-85.9% = B+	73-75.9% = C+	63-65.9% = D+	< 50 = E	
	86-89.9% = A-	80-82.9% = B	70-72.9% = C	60-65.9% = D		
		76-79.9% = B-	69.9-66% = C-	50-55.9% = D-		
Chemistry Learning Center	The CLC, located in 105 Joseph Hernandez Hall, is a study facility available to all chemistry students. You may work here whenever the building is open, generally up to 8pm on weekdays. Please be quiet, and ask others to be so also, when you are in this room. Eating and socializing are to be conducted outside in one of our many courtyards. Chemistry teaching assistants will be available here to answer questions and provide help during most daytime and early hours. Your discussion TA will have office hours in the CLC, but you may go there at any time that a TA is assigned to get help on questions pertaining to chemistry. Times at which the CHM 2046 assistants are available will be posted on the web and outside the CLC.					
Class Etiquette	In order to have an optimal learning environment, the classroom needs to be free of disruptions. Therefore, it is expected that students come to class on time, leave only when class is concluded by the instructor, and do not disrupt the class (<i>e.g.</i> , student talking or cell phone noises).					
Academic Honesty	Students are required to be honest in their coursework. Any act of academic dishonesty will be reported to the Dean of Students, and may result in failure of the assignment in question and/or the course. <i>N.B. Unauthorized recordings are a violation of the honor code §3.i.</i> UF's honor code: https://sccr.dso.ufl.edu/process/student-conduct-code/					
U Matter, We Care	Your well-being is important to the University of Florida. The <u>U Matter, We Care</u> initiative is committed to creating a culture of care on our campus by encouraging members of our community to look out for one another and to reach out for help if a member of our community is in need. If you or a friend is in distress, please contact <u>umatter@ufl.edu</u> so that the U Matter, We Care Team can reach out to the student in distress. A nighttime and weekend crisis counselor is available by phone at 352-392-1575. The U Matter, We Care Team can help connect students to the many other helping resources available including, but not limited to, Victim Advocates, Housing staff, and the Counseling and Wellness Center. Please remember that asking for help is a sign of strength. In case of emergency, call 9-1-1.					
Accommodations for Students with Disabilities	Students with disabilities requesting accommodations should first register with the <u>Disability</u> Resource Center (352-392-8565,) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. The student is responsible for scheduling the exam dates with the DRC. Students with disabilities should follow this procedure as early as possible.					
UF Course Evaluation		ed to provide profes	· ·	· ·		

Process	feedback in a professional and respectful manner is available at. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals or in their Canvas course menu under GatorEvals. Summaries of course evaluation results are available to https://gatorevals.aa.ufl.edu/public-results/ .
General Education Requirements	This course satisfies the general education program requirements for the physical sciences at the University of Florida. More information regarding the program objectives, student learning outcomes, and specific goals for CHM2045/CHM2046 can be found in the General Education Program Requirements document found on Canvas.
Student Learning Outcomes	The following learning outcomes (see table below) will be assessed through monitored Discussion Section preparation and participation, as well as through online assessments and in-semester and final examinations.

Area	Institutional Definition	Institutional SLO
CONTENT	Content is knowledge of the concepts, principles, terminology, and methodologies used within the discipline.	Students demonstrate competence in the terminology, concepts, methodologies, and theories used within the discipline.
COMMUNICATION	Communication is the development and expression of ideas in written and oral forms.	Students communicate knowledge, ideas, and reasoning clearly and effectively in written or oral forms appropriate to the discipline.
CRITICAL THINKING	Critical thinking is characterized by the comprehensive analysis of issues, ideas, and evidence before accepting or formulating an opinion or conclusion.	Students analyze information carefully and logically from multiple perspectives, using discipline specific methods, and develop reasoned solutions to problems.

Topics & associated reading (timetable provided is a best estimate of course progress):

Main Group Chemistry	Chapter 21 Chapter 14, 22	week 8–10 week 10–12	10/09 – 10/21 10/23 – 11/04
Electrochemistry	Chapter 21	week 8–10	10/09 - 10/21
Thermodynamics	Chapter 20	week 6–8	09/25 – 10/07
Ionic Equilibria in Aqueous Systems	Chapter 19	week 5–6	09/16 - 09/25
Acid-Base Equilibria	Chapter 18	week 3-4	09/04 - 09/13
Equilibrium	Chapter 17	week 1–2	08/21 – 08/30