CHM 2046: General Chemistry and Quantitative Analysis

Fall 2020

This course will be delivered online/synchronously. Course content will be delivered through the Canvas course shell with lectures provided through Microsoft Stream (available through Gator Cloud) and discussion meetings will occur on the Zoom platform during your scheduled discussion period.

Instructor	Leslie J. Murray, CL	3 410B			
Email:	email through Canvas only				
Zoom office hours:	T Period 7 (1:55 PM - 2:45 PM) R Period 6 - 7 (12:50 PM - 2:45 PM)				
Class Numbers	11051, 11052, 1108	0, 11081, 11082, 110	083, 11084, and 110	85	
Teaching Assts.	Subhadeep Bera, Will Buratto, and Devender Singh <u>email through Canvas only</u>				
Discussions	Wednesday classes corresponding to section numbers above meet with a Teaching Assistant (TA) virtually (Zoom) and will start on September 9 .				
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				
	CHM2046 will be participating in the UF All Access program for the fall 2020 semester. Students will have the opportunity to "opt-in" to purchase a discounted, digital version of the textbook (\$43.75 for 5 year access) DURING the first week of classes and pay for these materials through their student account. The digital textbook will then be available through RedShelf in the Canvas course. Students who do not choose this option will be able to purchase a print textbook through the UF Bookstore. Instructions detailing the opt-in process will be posted in Canvas. There is also an eBook copy of the student solutions manual for the textbook, titled CHM 2046 - SSM with ISBN 9781307629750 available for purchase here https://create.mheducation.com/shop/ or via the bookstore. Please email julia@chem.ufl.edu if you have textbook questions.				
Required Equipment	 A computer with an internet connection, a functional webcam, and microphone A handheld mirror (for Honorlock) A non-graphing non-programmable scientific calculator 				
Disclaimer	The instructor reserves 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.				
Grades	Grades will be based	d on the following di	vision:		
	Worksheets (each equally weighted):7%Quizzes (each of equal weight):8%Progress exams (3 @ 21.25% each):63.75%Final exam:21.25%				
	For information on UF's Grading Policy, see: <u>https://registrar.ufl.edu/grades/gradepolicy.html</u> and <u>https://student.ufl.edu/minusgrades.html</u> Course grades will be assigned with the following percentages used for guidance:				
	85-100% = A	78-81.9% = B+	68-71.9% = C+	58-61.9% = D+	55% > E
	82-84.9% = A-	75-77.9% = B	65-67.9% = C	55-57.9% = D	
		72-74.9% = B-	62-64.9% = C-		

Regrade Or Score Change Requests	and submitted to <u>thei</u> posted to canvas. Afte	to dispute any grade received in this c r TA as a message through Canvas onl er one week has passed from when the aware of the posting of the grade(s) thr ars those grades final.	y within one week of the grade being grade was posted and since all
Honorlock	allows you to take you account, download so and all that is needed To get started, you wi You can download the When you are ready t "Launch Proctoring" w of yourself, show you mirror so you can sho or desk. Honorlock w screen. Honorlock also not attempt to search	r your exams this semester. Honorlock ar exam from the comfort of your home ftware, or schedule an appointment in is a computer, a working webcam, and Il need Google Chrome and to downloa e extension at www.honorlock.com/ext o test, log into Canvas, go to your cours vill begin the Honorlock authentication r ID, and complete a scan of your room w your computer screen to the camera ill be recording your exam session by w o has an integrity algorithm that can de for answers, even on a secondary devi unter any issues, you may contact them c@honorlock.com).	e. You DO NOT need to create an advance. Honorlock is available 24/7 a stable Internet connection. d the Honorlock Chrome Extension. ension/install se, and click on your exam. Clicking process, where you will take a picture You will need a small handheld and also show underneath your table ebcam as well as recording your tect search-engine use, so please do ce. Honorlock support is available
Quizzes	your final grade and t designed to be compl the assigned week, sp succeeding Thursday.	be administered during the semester. If he three quizzes combined are worth 7 eted within a 30-minute time frame and ecifically, on the Wednesday (your disc Quizzes will be administered through C ons for missed quizzes will not be gram	% of the final grade. Each quiz is d will be available for two days within ussion section meeting day) and the Canvas.
Exams	questions will consist and quizzes. One can answers requiring nur choice, matching, and	tered at night from 8:20pm–10:20pm (of questions similar to the end-of-chap expect a mixture of conceptual and qua neric entry, multiple dropdowns, multi multiple fill in the blanks. You must us n exams (with log, In, root, and exponer	ter problems, worksheet questions, antitative/calculation questions with ple answer, true/false, multiple e a non-graphing non-programmable
Important Dates	Event	Date	Time
	Quiz #1	Wednesday September 31	due 10/01 @ 11:59PM
	Quiz #2	Wednesday October 14	due 10/15 @ 11:59PM
	Quiz #3	Wednesday November 18	due 11/19 @ 11:59PM
	Exam #1	Monday, October 5	8:20PM – 10:20PM
	Exam #2	Wednesday, October 21	8:20PM – 10:20PM
	Exam #3	Monday, November 30	8:20PM – 10:20PM
	Final Exam	Monday, December 14	5:30PM – 7:30PM

Absence from Exams or Quizzes and Conflict/Make-up Policy	Exam and quiz absences will be handled in accordance with <u>official UF academic regulations</u> . Make-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</u> <u>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 <u>UF Policy regarding absences</u> . If you must be absent for an exam due to a conflict known in advance, you must provide the <u>DSO</u> or appropriate documentation. DSO staff will then notify the instructors if your absence satisfies <u>UF's Absence & Absentee Policy</u> . Your instructor must receive notifications from the <u>DSO</u> or appropriate body at UF (<i>e.g.</i> , 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 <u>DSO</u> 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 <u>UF's policy on absences</u> , a make-up exam or quiz will be scheduled as soon as reasonably possible but prior to the end of the semester.
Canvas	UF's elearning platform, Canvas, can be found at <u>http://elearning.ufl.edu</u> . 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	The discussion sections meet every Wednesday and will cover content from the weekly worksheets or other questions/problems. Students are <u>strongly</u> encouraged to attend discussion sections as it provides you with a dedicated time to go over specific problems with your TA and seek clarification on course material. Attendance at discussion sections, however, is not required and will not be used as part of your grade calculation. Up to 7% of your course grade is allocated based on correct completion discussion worksheets. There will be 9-10 discussion worksheets over the course of the semester, and all worksheets are due on your discussion day (every Wednesday) and will be assigned on the Friday prior (posted on Canvas). No make-ups will be provided for Discussion worksheets except for absence that meets the criteria in the policy above. Any queries regarding assigned grades must be addressed within a week of posting grades to Canvas.
Chemistry Learning Center	There is free help available from graduate student teaching assistants via Zoom as part of a virtual CLC. Your discussion TA will have office hours on Zoom. You will also receive zoom links for the other CHM2046 graduate TAs so you may attend any TA's Zoom office hours. Additionally, there is the teaching center <u>http://www.teachingcenter.ufl.edu</u> , which offers some resources for being successful in your CHM2046 class.
Academic Honesty	UF students are bound by The Honor Pledge which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code." On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The Honor Code

	 (https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor or TAs in this class. 5 points will be deducted from your score if you neglect to sign the Honor Pledge question at the end of every exam. You will receive a 0 for the exam if cheating has been detected.
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> <u>Resource Center</u> (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.
Recordings	Our class sessions may be audio-visually recorded for students in the class to refer to at a later time and for enrolled students who are unable to attend live. <i>Students who participate with their camera engaged or utilize a profile image are agreeing to have their video or image recorded.</i> If you are unwilling to consent to have your profile or video image recorded, be sure to keep your camera off and do not use a profile image. Likewise, students who un-mute during class and participate verbally are agreeing to have their voices recorded. If you are not willing to consent to have your will need to keep your mute button activated and communicate exclusively using the "chat" feature, which allows students to type questions and comments live. The chat will not be recorded or shared. As in all courses, unauthorized recording and unauthorized sharing of recorded materials is prohibited.
UF Course Evaluation Process	Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via <u>GatorEvals</u> . Guidance on how to give 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 <u>GatorEvals</u> or in their <u>Canvas</u> course menu under GatorEvals. Summaries of course evaluation results are available to <u>https://gatorevals.aa.ufl.edu/public-results/</u> .
General Education Requirements	 This course satisfies the General Education requirement in the Physical Sciences. A minimum grade of C is required for general education credit. Physical science courses provide instruction in the basic concepts, theories and terms of the scientific method in the context of the physical sciences. Courses focus on major scientific developments and their impacts on society, science and the environment, and the relevant processes that govern physical systems. Students will formulate empirically-testable hypotheses derived from the study of physical processes, apply logical reasoning skills through scientific criticism and argument, and apply techniques of discovery and critical thinking to evaluate outcomes of experiments. These objectives are accomplished through participation in the course, and individual work done on homework assignments and assessments.

Student LearningThe following learning outcomes (see table below) will be assessed through monitored DiscussionOutcomesSection 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):

Equilibrium	Chapter 17	week 1–2
Acid-Base Equilibria	Chapter 18	week 2–3
Ionic Equilibria in Aqueous Systems	Chapter 19	week 3–5
Thermodynamics	Chapter 20	week 5–7
Electrochemistry	Chapter 21	week 7–8
Electronic Structure of Atom	Chapter 7 redux + supplementary material	week 8–9
Main Group Chemistry	Chapter 14, 22	week 9–10
Transition Metals	Chapter 23	week 10–12
Special Topics		week 12-end