

General Chemistry I CHEM 2045

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 via an announcement on canvas.

Course Overview

Description

CHM 2045 and CHM 2045L constitute the first semester of the two term sequence of General Chemistry, CHM 2045/2045L - 2046/2046L. Prerequisite information and credit suitability can be found in the Undergraduate Catalog. Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at: <https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>

COURSE OBJECTIVES: As both a general education requirement and major's course, CHM2045 serves to teach: the scientific method, skills for problem solving, general chemistry knowledge, and a connection to the principles that govern the natural world.

INSTRUCTOR:

DR. MARTINA SUMNER Flint #250. E-mail (for administrative purposes): m.sumner@chem.ufl.edu	Office Hours (Flint #250): MWF 8:20 to 11:20 am and 2:50 to 3:20 pm
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REQUIRED MATERIALS: Silberberg and Amateis, 8th ed (can acquire an earlier edition), Chemistry, The molecular nature of matter and change, or Tro

- nonprogrammable, scientific calculator (TI) or casio, TI-36 does quadratic function which will be helpful in chm2046

GRADES: Grades for the term will be determined as follows:

3 Progress Exams	60%
Final Cumulative Exam	25%
Quizzes	5%
Clickers/Worksheets	5%
Pre-lecture assignments	5%
TOTAL	100%

The following grade cutoffs will be used (these are non-negotiable):

90-100% = A	83-85.9% = B+	73-75.9% = C+	66-69.9% = D+	< 60 = E
86-89.9% = A-	80-82.9% = B	70-72.9% = C	63-65.9% = D	
	76-79.9% = B-		60-62.9% = D-	

Information on current UF grading policies for assigning grade points can be found at:
<https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>

ONLINE PRE-LECTURE ASSIGNMENTS: Five percent of the course grade will be based on online pre-lecture homework through either tophat or canvas. Each assignment is due by 7:00 am for P1, 12:30 pm for P6 and 1:30 pm for P7. Extra practice homework may also be available through Canvas but it won't be worth any points. You should also work all sample problems, follow up problems, and end-of-chapter problems for each chapter.

QUIZZES: Five percent of the course grade will be based on weekly quizzes administered via canvas (5 to 10 questions worth a total of 10 points - we will have at least 10 quizzes – if we have more than 10 the best 10 will count towards your grade). You must work individually on these questions. Quizzes are due by 11:59 pm on Monday unless otherwise noted. You will have 60 minutes per quiz and 2 attempts.

CLICKERS/WORKSHEETS: Five percent of the course grade will be based on in-class clicker questions and weekly discussion worksheets. Clicker questions will be asked throughout class. You can earn points in class by correctly answering clicker questions through TopHat and your *percentage of correct answers will determine your points*. You earn points by correctly answering questions. Before calculating your final clicker grade I will drop 3 days worth of clicker points, so you may miss up to 3 days of lecture without it affecting your clicker grade. **Worksheets:** There will be 12 worksheets total. The first discussion classes meet the week of August 28, the last one the week of November 27. You can earn 2 points by completing worksheets in the discussion sections.

DISCUSSION CLASSES: The Discussion Classes meet every week and your attendance is expected. Your discussion section 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 by Monday night. You may start working on it before you come to discussion. Form groups of 2 to 3 students and work on it together. Any grade discrepancy needs to be addressed within a week of posting grades to canvas (an announcement will be posted to canvas). If you missed a discussion section and show your completed worksheet to your TA the following week you will receive half credit. Any worksheet that is later than a week is worth no points.

CONTACTING THE INSTRUCTOR / OFFICE HOURS: Emails are for administrative purposes only, and not for distance-instruction. All academic inquiries must be made during office hours or before/after lectures (if time permits). If this is not possible, visit the CLC (see below). Please be prepared before coming to office hours, bring specific questions and your previous work.

CHEMISTRY LEARNING CENTER (CLC): There is free help available from graduate student teaching assistants in the CLC Monday through Friday in JHH (Hernandez) Hall 105. Your discussion TA will have office hours in the CLC, but you may go there anytime any TA is assigned there to get help on questions pertaining to chemistry. A schedule of the TA schedules will be posted in the corridor outside the CLC and also online. Additionally, there is the teaching center located on the ground floor of Broward Hall, if you'd like to use that resource. Their web site is <http://www.teachingcenter.ufl.edu>.

COURSE SCHEDULE (the lecture schedule is tentative, but exam dates will not change)

PLANNED LECTURE AND EXAM SCHEDULE	Chapters
Aug 21–25: Intro and Review: Atoms, Molecules, and Ions (3)	1–2
Aug 28 – Sep 6: Stoichiometry and Quantitative Chemistry (4)	3
Sep 8–18: Aqueous Chemical Reactions (5)	4
PROGRESS EXAM 1 – Wednesday, Sep 20 (8:20–10:20pm)	Cumulative
Sep 22–27: Gases (3)	5
Sep 29–Oct 4: Thermochemistry (3)	6
Oct 9 –13 : The Nature of Light (1)	7
Oct 11 –16: Kinetics: Rates of Reactions and Reaction Mechanisms (3)	16
PROGRESS EXAM 2 – Tuesday, Oct 17 (8:20–10:20pm)	Cumulative
Oct 18: Quantum Mechanical Model (1)	7
Oct 20–25: Electron Configuration and Periodic Trends of Elements (3)	8
Oct 27 –30: Types of Chemical Bonding (2)	9
Nov 1–8: Lewis Structures and Molecular Geometry (4)	10
Nov 13–15: Theories of Covalent Bonding (2)	11
PROGRESS EXAM 3 – Thursday, Nov 16 (8:20–10:20pm)	Cumulative
Nov. 20 withdrawal deadline	
Nov 17–27: Intermolecular Forces of Attraction; Liquids and Solids (3)	12
Nov 29 – Dec 6: Solutions and Colligative Properties (4)	13
FINAL EXAM – Saturday, Dec 9 (3:00–5:00pm)	Cumulative

OFFICIAL UF HOLIDAYS (no classes): Sep 4, Oct 6, Nov 10, Nov 22–24 (Thanksgiving)

EXAMS: Exams will be taken in the evenings outside of class and the Exam Room. Assignments will be posted to canvas. You must use a non-graphing non-programmable scientific calculator on exams (with log, ln, root, and exponent (scientific notation) functions). Be sure to also bring pencils and your UF ID card. No notes, papers, cell phones or other electronic devices can be in view during exams.

No makeup (“do over”) progress exams will be given for any reason. If you must be absent for an exam due to a documented and approved academic or UF athletic conflict, bring the documentation to your instructor at least *one week prior* to the scheduled exam and an early conflict exam will be scheduled for you. If you are absent for an exam due to an unpredicted documented medical reason, you must contact the instructor as soon as

possible. More information regarding this policy can be found in the [General Chemistry Exam Absence Policy](#) document found on Canvas.

To alleviate the stress of potential issues that do not fall under officially-sanctioned absences, we've incorporated an "average/replace" policy (the lowest of the three progress exams will be replaced by the average of the three progress exams). This "average/replace" policy will help to minimize the impact of a single poor performance but it will not completely disappear. Example: exam 1 150, exam 2 missed but an excused absence, exam 3 160 so average replace 155, OR exam 1 150, exam 2 missed but **not** an excused absence so 0, exam 3 160 so average replace 103.33. The student that had an excused absence will replace that 0 on exam 2 with what they make on the final so, if they score a 190/250 on the final their exam 2 will now be 152 points.

Any and all exam grade disputes or Scantron confirmations must be performed within two weeks of the scheduled exam date. Bubbling errors 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.

HONOR CODE: 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.

CANVAS (<http://elearning.ufl.edu>): Here you will find the syllabus, gradebook, files, class announcements, and other pertinent info for the course. It is your responsibility to check Canvas often to make sure that you do not miss important announcements and to ensure that your gradebook is accurate. For computer assistance, visit <http://helpdesk.ufl.edu/>.

CLASS DEMEANOR: 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 and leave only when class is concluded by the instructor, and that the class is not disrupted by student talking or cell phone noises.

DISABILITIES: Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, <http://www.dso.ufl.edu/drc/>) 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.

U MATTER, WE CARE: Your well-being is important to the University of Florida. The U Matter, We Care 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 umatter@ufl.edu 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.

EVALUATIONS: Students are expected to provide feedback on the quality of instruction in this course by completing online evaluations at <https://evaluations.ufl.edu>. Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open. Summary results of these assessments are available to students at <https://evaluations.ufl.edu/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.

DISCLAIMER: This syllabus represents my current plans and objectives. If those need to change as the semester progresses, then the changes will be communicated to the class clearly.