

CHM 2046	General Chemistry 2 Gower Sections	Fall 2014
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INSTRUCTOR: Jeff Gower (jgower@ufl.edu)

Lectures: MWF 4th and 5th Periods (CLB 130)

Discussion Classes: Tuesdays (multiple periods and rooms)

Office hours: MTR 7th and 8th Periods (CLB 314, telephone: 392-2155)

PREREQ: Grade of C or higher in CHM 2045.

TEXT: Chemistry: The Molecular Nature of Matter and Change (6th Edition)

by Martin Silberberg (McGraw-Hill)

PLANNED LECTURE SCHEDULE: It is expected that you attend each lecture and that you attend the lecture period for which you are registered. Please do not overcrowd the lecture hall by going to a lecture period for which you are not registered. For UF attendance policy, see <https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>

<u>Tentative</u> Lecture Schedule and Topics	Chapters
Aug. 25 – Sep. 24: Acid-Base and Solubility Equilibria	Chaps. 18, 19
Sep. 26 – Oct. 29: Gas-Phase / Heterogenous Equilibria and Thermodynamics	Chaps. 17, 20 (review Chap. 6)
Oct. 31 – Dec. 3: Redox Reactions / Electrochemistry and Main-Group and Transition Element Chemistry	Chaps. 4.5–4.6, 21, 14, 22, 23 (review Chaps. 8 through 13)
Dec. 5 – 10: Nuclear Chemistry	Chap. 24

HOLIDAYS (no classes): Sep. 1, Oct. 17, Nov. 11, Nov. 26-28

E-LEARNING / SAKAI (CLASS WEB SITE): <http://lss.at.ufl.edu>

We will be using the **SAKAI** system in e-Learning. Here you will find the syllabus, your gradebook, selected lecture material, files, end-of-chapter problem solutions, announcements, and other pertinent info for the course. It is your responsibility to check the Class Web Site often (as well as your gradebook) to make sure that you do not miss important announcements and other information and to ensure that your gradebook is accurate.

WEEKLY ONLINE ASSESSMENTS: There will be weekly online assessments posted on the Sakai web site for this course. Each assessment will begin at 12:00am on a Tuesday morning and end at 12:00am on the following Tuesday morning (i.e., midnight on Monday). To access the assessments, click on "Assessments" in Sakai. Although you'll be given four submission attempts for each assessment (be sure to write down your answers because you'll have to re-enter them for each submission attempt), you are to take the assessments during the first attempt "cold", as if you were taking an exam, in order to ASSESS yourself so that you can isolate your weaknesses with the material. Successive attempts are to be made after rethinking each question. Since there are no points earned for these assessments, they do not count toward your course grade; however, your preparedness and performance during the Tuesday Discussion Classes (see below under "Discussion Classes") will be directly related to the effort you put into the weekly online assessment and/or suggested end-of-chapter problems (see below). Note: In order to access the assessments after the due dates (for study purposes), you must at least open the assessment and attempt a problem; failure to do so will result in the assessment being inaccessible to you for the remainder of the semester. It is up to the student to keep track of the assessment schedule - no requests for time extensions on the assessments will be granted. To help avoid any Sakai or computer issues that may arise, it is suggested that you do the assessments early enough in the week to avoid last-minute time or computer issues.

SUGGESTED END-OF-CHAPTER PROBLEMS: These are problems from the Silberberg 6th edition (see top of syllabus) textbook that are selected based on their appropriateness for the course. However, you may need to do different or additional end-of-chapter problems, depending on your own personal weaknesses with the course

material (read the “How To Succeed In College Chemistry” document posted in Sakai for strategies for success in this course).

DISCUSSION CLASSES: The Discussion Classes meet every Tuesday (except for the first week of the semester) according to the schedule posted in Sakai. It is very important that you attend each Discussion Class, and that you attend the Discussion Class for which you are registered, because your participation in the Discussion Classes will be monitored and will constitute a portion of your grade for the course. You will be called on several times in Discussion Classes to participate in discussions of the previous week’s Online Assessment assignment and/or suggested End-Of-Chapter problems. Therefore it is important that you not only attend your registered Discussion Classes, but that you show up prepared to participate. Your presence, preparation, and participation will be reflected in your overall course grade (see under “GRADES” below).

EXAMS: You must use a non-graphing non-programmable scientific calculator (with log, ln, root, and exponent (scientific notation) functions) on exams. Be sure to also bring pencils, section number, and your UF ID card. No notes, papers, cell phones or other electronic devices can be in view during exams.

Date	Exam
Wednesday, Sep. 24 (8:20 – 10:20 pm)	Progress Exam 1
Wednesday, Oct. 29 (8:20 – 10:20 pm)	Progress Exam 2
Thursday, Dec. 4 (8:20 – 10:20 pm)	Progress Exam 3
Monday, Dec. 15 (3:00 – 5:00 pm)	Final Exam

All exams are cumulative. No makeup progress exams will be given for any reason. Since unavoidable emergent situations (illnesses, accidents, emergencies, etc.) do arise occasionally, we've incorporated a dropped-exam policy (the best 2 of 3 progress exams will be counted toward your grade - see under “GRADES” below). If you know in advance that you must be absent for an exam due to a documented and approved academic or UF athletic conflict, bring the documentation to your instructor beforehand (at least one week prior to the scheduled exam) and an early conflict exam will be scheduled for you. Planned or emergency trips home or elsewhere are not approved conflicts, however. For more information on UF General Chemistry exam policy, see http://iteach.chem.ufl.edu/Exam_Absence_Policy_GChem_s13.pdf

Checking your Scantron: Out of the tens of thousands of exam scantrons that have been scored while I've been at UF, not one has been scored incorrectly. Any discrepancies have always been due to student bubbling error, which of course can not be negotiated. However, scantrons may be checked during the two established instructor office hour sessions following the posting of the exam score in your Sakai gradebook, after which no further scantron checking will be accommodated.

CHEMISTRY LEARNING CENTER (CLC): Tutoring from graduate student TAs is available in the CLC Mon-Friday in Flint Hall 257. 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 in Sakai.

And, there is the **TEACHING CENTER** located on the ground floor of Broward Hall, if you'd like to use that free resource. Their web site is <http://www.teachingcenter.ufl.edu>.

CONTACTING THE INSTRUCTOR / OFFICE HOURS: Course administrative queries can be emailed to the instructor or made during office hours (or by special appointment if necessary). Chemistry queries should be made in person during office hours or before/after lectures. If this is not possible, please visit the CLC (see below). Please consult the online chapter solutions (if applicable) before coming to office hours.

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

Progress Exams (best 2 of 3 @ 200 pts)	400 pts
Discussion Class Preparedness and Participation	100 pts
Final Exam	250 pts
TOTAL	750 pts

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

90-100% = A 86-89% = A- 83-85% = B+ 80-82% = B 76-79% = B-
73-75% = C+ 70-72% = C 66-69% = C- 63-65% = D+ 60-62% = D
< 60% = E

For further information on UF's Grades and Grading Policies, go to <https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>

INSTRUCTOR EVALUATIONS: Students are expected to provide feedback on the quality of instruction in this course by completing online evaluations at <https://evaluations.ufl.edu> during the last two or three weeks of the semester. 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/>.

HONOR CODE: (<http://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/>)

The UF Student Honor Code applies to all exams and assessments given in this course. Please understand that absolutely no leniency will be extended in any case of academic dishonesty.

DISABILITIES / STUDENT MENTAL HEALTH COUNSELING: Students requesting classroom and exam accommodations should contact the Dean of Students Disability Resources Center (DRC) at 392-8565 or <http://www.dso.ufl.edu/drc/> and obtain the proper forms that need to be turned in to me during the first week of class or as soon as possible after obtaining the paperwork from the DRC. It is the student's responsibility to schedule and arrange accommodations with the DRC. Students may seek mental health counseling at any time. See <http://www.counseling.ufl.edu/cwc/>.

COURSE INFO: CHM 2046 and CHM 2046L constitute the second semester of the two term sequence of General Chemistry, CHM 2045-2045L-2046-2046L. This sequence is suitable for all science and engineering majors.

GENERAL EDUCATION CREDIT: This course is available for general education credit. This course introduces students to fundamental concepts of chemistry including bonding, atomic and molecular structure, chemical reactions, states of matter, and reaction rates. The scientific method and the place of chemistry in the everyday world are emphasized.

PROGRAM OBJECTIVES: 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 will be accomplished through participation in the course lectures and discussion sections, and individual work done on suggested homework assignments and online assessments.

GENERAL EDUCATION 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 progress (mid-term) examinations and final examinations.

GENERAL EDUCATION STUDENT LEARNING OUTCOMES, continued:

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.