

<b>CHM 2046</b>	<b>General Chemistry 2</b> Gower Sections	<b>Fall 2012</b>
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**INSTRUCTOR:** Jeff Gower ([jgower@ufl.edu](mailto:jgower@ufl.edu))

Lectures: MWF 4th Per. (CLB 130)

Office hours: MTR 6<sup>th</sup> and 7<sup>th</sup> Periods (CLB 314)

**TEXTBOOK:** Principles of General Chemistry, 2<sup>nd</sup> Edition, Martin S. Silberberg, McGraw-Hill

**PREREQ:** Grade of C or higher in CHM 2045 plus MAC 1140 or MAC 1147 or MAC 2311.

**LECTURE AND EXAM SCHEDULE (lecture schedule is tentative)**

Dates	Topics	Chapters
Aug. 22 – Sep. 19	Acid/Base Equilibria; Solubility Equilibria; Gas-Phase and Heterogenous Equilibria	Chaps. 17 – 19
<b>Thursday, Sep. 20 (8:20 – 10:20 pm)</b>	<b>Progress Exam 1</b>	Cumulative
Sep. 21 – Oct. 24	Thermodynamics; Redox Reactions and Electrochemistry	Chaps. 17, 20, 4.5–4.6, and 21
<b>Thursday, Oct. 25 (8:20 – 10:20 pm)</b>	<b>Progress Exam 2</b>	Cumulative
Oct. 26 – Nov. 28	Main Group Element Chemistry; Transition Metal Chemistry	Chaps. 14 and 22
<b>Wednesday, Nov. 28 (8:20 – 10:20 pm)</b>	<b>Progress Exam 3</b>	Cumulative
Nov. 30 – Dec. 5	Nuclear Chemistry	Chap. 23
<b>Monday, Dec. 10 (3:00 – 5:00 pm)</b>	<b>Final Exam</b>	Cumulative

**HOLIDAYS (no classes):** Sept. 3; Nov. 9,12,21-23

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

Here you will find the syllabus, your gradebook for the class, selected lecture material, files, end-of-chapter problem solutions, class 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.

**DISCUSSION CLASSES:** The Discussion Classes meet every week (except for the first week of the semester) according to the schedule posted in Sakai. You may go to as many Discussion Classes that you would like to attend, so long as space is available.

**CHEMISTRY LEARNING CENTER (CLC):** Tutoring from graduate student TAs is available in the CLC Mon-Friday 2<sup>nd</sup> through 11<sup>th</sup> periods 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:** Emails are for administrative purposes only, and not for distance-instruction (my experience has shown that it is almost impossible to adequately teach chemistry via email). All email queries about information covered in the syllabus or announced in lecture will be disregarded. 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 consult the online chapter solutions (if applicable) before coming to office hours.

**EXAMS:** Three cumulative progress exams and a cumulative final exam will be given. **No graphing or programmable calculators are allowed during exams!** 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, section number, and your UF ID card. No notes, information sheets, or cell phones allowed. **No makeup progress exams will be given for ANY reason.** Since unavoidable 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 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 a week prior to the scheduled exam). Planned or emergency trips home or elsewhere are **not** approved conflicts. **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. So checking your scantron has been repeatedly proven to be an exercise in futility. 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.

**ONLINE ASSESSMENTS:** There will be twelve (12) online assessments given via the Sakai web site for this course. **The schedule for these assessments is given below – it is up to the student to know the schedule.** Each assessment will begin at 12:00am on a Wednesday morning and end at 12:00am on the following Wednesday morning (i.e., midnight on Tuesday). To access the assessments, click on "Assessments" in Sakai. You'll be given two submission attempts for each assessment. You are to take the assessments during the first attempt "cold", as if you were taking an exam, in order to ASSESS yourself with the material. The second attempt is to be made after you have learned how to do the problems you missed during the first attempt. **No makeup assessments will be offered for ANY reason.** Computer issues that may arise will not be negotiated. To help assuage any unavoidable conflicts or computer issues that may arise, only the best 10 of 12 assessments count toward your grade – see under "GRADES" below. I suggest doing the assessments early enough in the week to avoid last-minute time or computer issues.

**Online Assessment Schedule: (start 12:00am Wed., end 12:00am Wed.)**

	1	2	3	4	5	6	7	8	9	10	11	12
Start Date	8/29	9/5	9/12	9/19	9/26	10/3	10/10	10/17	10/24	10/31	11/7	11/28
End Date	9/5	9/12	9/19	9/26	10/3	10/10	10/17	10/24	10/31	11/7	11/14	12/5

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

Progress Exams (best 2 of 3 @ 250 pts)	500 pts
Online Assessments (best 10 of 12 @ 20 pts)	200 pts
Final Exam	300 pts
<b>TOTAL</b>	<b>1000 pts</b>

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

900-1000 = A    860-899 = A-    830-859 = B+    800-829 = B    760-799 = B-  
 730-759 = C+    700-729 = C    660-699 = C-    630-659 = D+    600-629 = D  
 < 600 = E

NOTE: No exam scores are "dropped" until AFTER the last day of classes. Do not think in terms of "I will drop this-or-that exam" until then, because you never know when an unavoidable situation will arise that will result in your missing another exam. Also, do not make the very common mistake of thinking "I have an A going into the Final Exam" if that "A" is due to a "dropped" exam – think instead in terms of your PERFORMANCE level going into the Final Exam, which is reflected in ALL of your exam scores (including those that you think will be "dropped"). You will likely perform on the Final Exam at the level reflected by ALL of your scores unless you go back and address any deficiencies reflected in so-called "dropped" exams first.

For further information on UF's Grades and Grading Policies, go to <http://www.registrar.ufl.edu/staff/grades.html#grading>

**HOW TO SUCCEED IN COLLEGE CHEMISTRY:** Success in college-level chemistry requires both a strong conceptual understanding of the material and a competent proficiency with the quantitative problem-solving strategies that are required to successfully answer word problems that are typical on quizzes and exams. You will **not** excel in this course without both the conceptual and the competence aspects of the material. This means that you **MUST PRACTICE** most of the End-Of-Chapter problems in your textbook so that you can diagnose your own strengths and weaknesses with the material. The more practice with problems that you do, the more likely you will recognize and know how to approach and work through the same kinds of problems (with the fewest errors and avoidable missteps) that you will see on quizzes and exams. **FOCUSED AND EFFICIENT PRACTICE IS ESSENTIAL – FOLLOW CAREFULLY THE STRATEGY BELOW:**

**PROBLEM-SOLVING PRACTICE STRATEGY (VERY IMPORTANT!!):**

- 1) attempt each of the end-of-chapter problems one at a time;
- 2) consult the posted worked-out solutions (Silberberg solutions in Sakai) after attempting each problem to see if you got the correct answer (anything less than the absolute correct answer in bold print is an incorrect answer!) – if you didn't get the absolute correct answer the first time without looking at the solution, read over the solution carefully and try to understand where you made the error;
- 3) take detailed notes (keep a notebook for these notes) regarding the exact mistakes you make during each problem so that you will identify your own particular weaknesses and be able to “red-flag” where you are likely to make mistakes;
- 4) if you succeeded in getting the correct answer the first time without looking at the solution, check off that problem in the book, and if you did not succeed in getting the correct answer the first time without looking at the solution, circle the problem number and study the solution in the solutions manual;
- 5) revisit the circled problems the next day or a few days later, keeping in mind your own “red-flags” to watch out for, to see if you get the correct answer without looking at the solution;
- 6) repeat step 4); and
- 7) repeat steps 5) and 6) if necessary.

Never assume that you have understood or succeeded at a problem until you have obtained the CORRECT answer all on your own without looking at the solution first to do so, and do not merely look at the solutions and say "oh yeah, I see what I did wrong", and move on. ALWAYS go back and be sure that you can do each problem on your own successfully. Otherwise, you will most likely make the same errors on exams. Be sure to take DETAILED and PRECISE NOTES as you do problems, indicating your weaknesses and strengths and where you made specific mistakes, so that you will be able to be on the lookout for when these “red flag” types of situations arise in the future!

**IMPORTANT:** ALWAYS be assessing yourself – at the end of every problem-practice session, count the number of problems you did correctly the FIRST time without looking at the solution, and the number you did not do correctly the first time – the percentage of problems you did correctly will be your “grade” for that session, which is a very good approximation of your performance level – ALWAYS BE ASSESSING YOURSELF, AND DO NOT WAIT UNTIL YOUR INSTRUCTORS ASSESS YOU ON EXAMS, AFTER WHICH IT IS TOO LATE TO DO ANYTHING ABOUT IT. Merely "doing all the problems at the end of the chapters" does not equal "doing all the problems at the end of the chapters correctly". HARD WORK DOES NOT NECESSARILY EQUAL PRODUCTIVE WORK!! Do not make this very very common mistake. Giving yourself a “grade” after each session will keep you mentally on track regarding how you are performing at that time – without this information, you WILL NOT have any real idea of how well you are doing and how well you are prepared for exams.

**SUGGESTED END-OF-CHAPTER HOMEWORK:** I have posted in Sakai (in “Resources”) suggested Silberberg End-Of-Chapter problems for you to do from each Chapter. It is strongly recommended that you do these and other problems, depending on your own needs, using the detailed method outlined below in the “How To Succeed In College Chemistry” portion of the syllabus. It is up to you to determine what and how many problems you need to do to prepare yourself for what you might see on an exam.

**HONOR CODE:** The [UF Student Honor Code](#) (ctrl+click to open link) 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:** If you are applying for disability resource status come see me the first week of class. Students requesting classroom and exam accommodations should contact the Dean of Students Disability Resources Center at <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. It is the student's responsibility to schedule and arrange accommodations with the DRC. Students with disabilities may request special classroom accommodation. See <http://www.chem.ufl.edu/~itl/disabilities.html>. Students may seek mental health counseling at any time. See <http://www.chem.ufl.edu/~itl/counseling.html>.