

CHM 2045, General Chemistry 1

Fall 2012

Instructor: Dr. Kathryn R. Williams, CLB 220, 392-7369, krw@chem.ufl.edu
Office Hours: M, 5th; T, 8th; W, 5th; Th, 4th; F, 3rd

Class Logistics: M, W, F, 1st period; CLB C130; Discussions on Tuesdays (see class schedule for rooms).
Please turn cell phones **OFF** during lectures and discussions.

Description: CHM 2045 is the first half of the two-semester general chemistry sequence for science majors. Topics include: chemical formulas and reactions, stoichiometry, states of matter, thermochemistry, quantum theory and the periodic table, chemical bonding, solutions, and kinetics. To proceed to CHM 2046, students must earn at least a C (not C-) in CHM 2045.

Prerequisites: Passing score on the Chemistry Readiness Assessment (6 or higher on each portion, math and chemistry) OR Grade of C or higher in CHM 1025 OR Score of 3 or higher on the AP Chemistry Exam OR Score of 4 or higher on the IB Chemistry Exam **PLUS** MAC 1140 OR MAC 1147 OR MAC 2311. Students may take the MAC prereq concurrently with CHM 2045, **but the MAC requirement MUST be met prior to taking CHM 2046.**

Text: Silberberg, Martin S. *Chemistry: The Molecular Nature of Matter and Change*, 6th ed. ; McGraw-Hill: New York, 2012.

Attendance: Attendance will not be recorded, but it is highly recommended that you attend every lecture and discussion. Material discussed in class is fair game for quizzes and exams.

Quizzes: Four 40-point quizzes will be given during discussions (see schedule). The lowest quiz grade will be dropped. There will be **NO** makeup quizzes. You must take quizzes during your assigned discussion.

Exams: Three 250-point progress exams will be given on the evenings of Th, Sept. 13; W, Oct. 24; and M, Nov. 19. The lowest exam score will be dropped. Exam rooms will be assigned by section number and posted in the Sakai announcements. Evening exam times are 8:20-10:20 PM. No student will be allowed to start after 9:00 PM. Bring a non-programmable calculator, several sharp #2 pencils, an eraser, and your Gator1 card; **NO** study sheets or cell phones.

Final Exam: The 300-point cumulative final exam is scheduled for Sat. Dec. 8, 5:30-7:30 PM.

Make-up Policy: There will be **NO** makeup quizzes or progress exams, except for required attendance at university-sponsored events (see back). A missed quiz or exam will be the one dropped.

Calculators: **NO** programmable calculators are permitted on exams and quizzes. Bring a calculator with all the common mathematical operations, including log, ln, powers, and roots.

Grades: Your letter grade will be based on 1000 total points, distributed as follows:

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|---|---------|
| CONNECT Homework | 80 pts |
| Quizzes (best 3 of 4 @ 40 pts each) | 120 pts |
| Progress Exams (best 2 of 3 @ 250 pts each) | 500 pts |
| Final Exam | 300 pts |

The **fixed, non-negotiable** grading scale is as follows:

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|-------------|-------------|-------------|------------|-----------------|-------------|
| 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 (fail) | |

Grade Posting: All quiz and exam scores will be posted on Sakai E-Learning. The URL is <http://lss.at.ufl.edu>. It is **your responsibility** to make sure that your scores are posted correctly. Any questions about exam or quiz scores (including Scantron verification) must be brought to Dr. Williams' attention within one week after the exam score posting or quiz return.

GCLC: The General Chemistry Learning Center, the go-to place for help in this course, is in Flint Hall 257. TA's will be available during most business hours Monday-Friday. Any CHM 2045 TA present in the GCLC is able to assist with topics in CHM 2045. You should take advantage of this free resource.

Other Links:

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|---------------------|---|
| Honor Code: | http://www.chem.ufl.edu/~itl/honor.html |
| Disabilities: | http://www.chem.ufl.edu/~itl/disabilities.html |
| Counseling: | http://www.chem.ufl.edu/~itl/counseling.html |
| Grade Point Values: | http://www.isis.ufl.edu/minusgrades.html |

Student Athletes and School Events: Students required to attend university-sponsored events must see Dr. Williams personally **at least one week prior to the event** about accommodations for quizzes or exams.

CONNECT (On-Line) Homework: CONNECT assignments for each textbook chapter will be due on the dates listed in CONNECT – times due for each due date are just before midnight. Do NOT wait until the last minute to access and attempt to complete CONNECT assignments, because **NO extensions** will be given for computer issues. To avoid problems relating to computer or other “glitches,” the total number of possible CONNECT points is 100, and you are encouraged to work and correctly answer all questions. However, at the end of the semester, a maximum of 80 points will be included in your final grade tally. The access URL is http://connect.mcgraw-hill.com/class/k_williams_fall2012sections Step-by-step sign-on instructions are provided in Sakai Resources.

Course Schedule

| Week | Topic/Chapter | Special Dates |
|---------------------------|--|---|
| 8/22-8/24 | Basics/Components of Matter, Chap 1,2 | |
| 8/27-8/31 | Nomenclature /Stoichiometry, Chap 2,3 | |
| 9/3-9/7 | Stoichiometry/Classes of Reactions, Chap 3,4 | No class M, 9/3, Labor Day Quiz 1 during discussion |
| 9/10-9/14 | Classes of Reactions/Thermochemistry, Chap 4,6 | Exam 1,Th, 9/13; Chap 1,2,3,4 |
| 9/17-9/21 | Thermochemistry/Quantum Theory, Chap 6,7 | |
| 9/24-9/28 | Quantum Theory/Atomic Structure, Chap 7,8 | |
| 10/1-10/5 | Electron Configurations/Periodic Table, Chap 8 | |
| 10/8-10/12 | Bonding Principles, Chap 9 | Quiz 2 during discussion |
| 10/15-10/19 | Molecular Shapes/Covalent Bonding, Chap 10,11 | |
| 10/22-10/26 | Covalent Bonding/Gases, Chap 11,5 | Exam 2, W, 10/24 Chap 1-4,6,7-11 |
| 10/29-11/2 | Gases/Kinetic Molecular Theory, Chap 5 | |
| 11/5-11/9 | IMF's/Solids & Liquids, Chap 12 | No class F, 11/9, Homecoming |
| 11/12-11/16 | Solutions, Chap 13 | Quiz 3 during discussion No class, M, 11/12 Vet. Day |
| 11/19-11/23 | Solutions, Chap 13 | Exam 3, M,11/19; Chap 1-13 No class T-F, 11/20-23 Thanksgiving |
| 11/26-11/30 | Kinetics, Chap 16 | |
| 12/3-12/5 | Kinetics, Chap 16 | Quiz 4 during discussion |
| Sat.12/8; 5:30-7:30 PM | | Final Exam, Cumulative |