Chemistry 102 Summer 2013 Course Guidelines

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Office Hours: MWF 1130 - 1230 or by arrangement. Class Hours: MWF 0830 - 1120, Flanner Lecture Hall

Textbook: *Chemistry: the Central Science*, by Brown, LeMay, Bursten, Murphy, and Woodward, Twelfth Edition. We will refer to this book as BLB—this is easier to remember and say than BLBMW. BLB is the same text used for Chem 101 this past academic year. The early bird section of summer 102 will focus on essential material of Chapters 13 – 21 with a detour around Chapter 18. If time allows, we will discuss aspects of Chapter 23. The principal topics are...

1. Properties of solutions, mostly ideal ones (Chapter 13).
2. Chemical kinetics, reaction rates, and thermal effects (Chapter 14).
3. Chemical equilibrium states in gas and liquid phases (Chapter 15).
4. Acids and bases: equilibrium states in aqueous solutions (Chapter 16).
5. More aspects of liquid solutions and equilibrium states (Chapters 17).
6. Chemical Thermodynamics Revisited: The second law and applications (Chapter 19).
7. Electrochemistry: electrolyte solutions, voltaic, and electrolytic cells (Chapter 20).
8. Nuclear chemistry: reactions, kinetics, and energy considerations (Chapter 21).
9. Chemistry of transition metals and coordination compounds (Chapter 23, if time allows).

Exams: There will be three eighty-minute exams and one cumulative final exam. Each exam will consist of questions and problems representative of the text and lecture material. All calculations, units, and essays will be entered in a standard blue book provided by DG. A calculator, periodic table, and a single page of notes (8.5 x 11 inches, both sides OK) may be used during each exam.

The single page of notes must be included with the blue book prior to hand-in. Blue books must be signed on the front, upper right-hand corner. Each signature will be taken as a statement of honest, independent work. Instances of academic dishonesty will warrant immediate failure of the course plus referral to the Arts and Sciences Dean's office. Please review the policy on academic honesty via the College of Arts and Sciences/Loyola University website.

All blue books will be graded and returned as soon as possible, usually the following class period. All grading questions and errors must be brought to DG's attention no later than one week after return of the exam.

If special provisions are needed for the exams and other aspects of Chemistry 102, please consult DG during the first week.

Assignment of Grades:

The following scale will be used: 87% - 100% A-, A; 72% - 86% B-, B, B+; 59% - 71% C-, C, C+; 50% - 58% D, D+; < 50% F. Grades will be assigned by weighting the eighty-minute exams 0.55, assignments 0.10, and the final exam 0.35, with account given to improvement during the semester.

An aim of the grading policy is to allow time and incentive for improvement. Chemistry is not easy to learn, but the process can be rewarding if necessary effort is made to master fundamentals as they appear. Please contact DG to discuss problems before they become serious.

Assignments: Multiple assignments will be featured. Students are urged to work problems with the help of each other and the instructor. Good-faith effort on each assignment will warrant full credit plus one point applied to the up-coming exam. Key problems from the assignments will be discussed in class.

Chem Coaching: The lecture hall is free for an hour or so after the MWF morning sessions. This offers time and space for Q&A and practice problems. Chem coaching will also be offered at TBA-times in Flanner Hall lobby to prepare for exams.

Handouts: There will be multiple postings on Sakai (Blackboard's replacement) during the semester. These will include assignments, old exams, and instructor work. Errors should be brought to DG's attention as soon as possible.

Schedule: The typical class day will feature lectures, problem solving, and breaks. Exam days will begin with the exam at 0830 followed by class sessions and breaks.

M 070113 First Day of Class. We will begin with Chapter 13 on Solution Properties.

F 071213 **Exam I at 0830**: Material of Chapters 13 - 15 will be emphasized.

W 072413 **Exam II at 0830**: Material of Chapters 15, 16, and 17 will be emphasized.

F 080213 **Exam III at 0830**: Material of Chapters 17, 19, and 20 will be emphasized.

W 080713 Last lectures, i-dotting and t-crossing.

F 080913 **Cumulative Final Exam at 0830**