

Chemistry 101 Fall, 2011 Course Guidelines

Instructor: Daniel Graham, Flanner Hall Room 401 (office and voice-mail, 773 508-3169); Loyola Chemistry Office: 773 508-3100; FAX: 773 508-3086; email: dgraha1@luc.edu

Office Hours: MW 2:30 – 3:30 PM, Th 11:30 AM – 12:30 PM, or by arrangement.

Class Hours: MWF 8:15 – 9:05 AM, Flanner Lecture Hall = Flanner 129.

Discussion Sections: Th 8:30 – 9:45, Dumbach Hall 117
Th 10:00 – 11:15, Dumbach Hall 227

Textbook: *Chemistry, the Central Science*, by Brown, LeMay, Bursten, Murphy, and Woodward, Twelfth Edition. This text will also be used in Chemistry 102.

The course will cover essential material of Chapters 1 – 11 of BLBMW. The topics will include:

1. Matter, measurements, physical and chemical properties.
2. Atomic theory and the elements; molecules, ions, and compounds.
3. Stoichiometry and chemical formulas.
4. Reactions in Aqueous Solution
5. Thermochemistry
6. The electronic structure of atoms
7. More electronic structure: periodic law.
8. Chemical bonding and molecular structure.
9. More molecular structure
10. Gas Laws
11. The forces between molecules; phase behavior

Exams:

There will be three one-hour exams and one two-hour cumulative final exam. Each exam will consist of questions and problems representative of the text, lecture, and discussion material. All calculations and proper units will be entered clearly in a standard "blue book" provided by the instructor. A calculator, periodic table, and a single page of notes (8.5 x 11 inches, both sides) will assist taking 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. All blue books must be handed directly to the instructor upon completion.

The exams will be graded and returned as soon as possible, usually the following class period. All grading questions, points of clarification, and grading errors must be brought to the instructor's attention during office hours no later than one week after return of the exam.

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 according to the highest percentage computed the following three ways:

1. The average of the three one-hour exams, each weighted 1/3, plus completion of the final exam. Completion of the final exam is mandatory.
2. The average of the top two one-hour exams plus the cumulative final. Here the two one-hour exams will each be weighted 1/4; the final exam will be weighted 1/2.
3. The final exam by itself plus completion of the three one-hour exams.

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 extensive, daily effort is made to master the fundamentals as they appear. Students are urged to contact the instructor to discuss problems before they become serious.

Assignments:

Multiple problems will be assigned weekly during the semester based on the text and lecture materials. Students are urged to complete the assignments with the help of each other and the instructor.

Discussion Sessions:

Weekly discussions will take place. These aim at reinforcing ideas encountered in the textbook and lectures. Each discussion session will feature a quiz followed by individual chem coaching. Completion and hand-in of each quiz *plus* the assignment for that week will warrant one point of credit applied to the up-coming exam.

On-Line Resources

The Mastering Chemistry Series which accompanies the textbook is recommended. This offers on-line tutorials and practice quizzes for each chapter. The course ID is GRAHAMFALL2011. The actual assignments completed for early bird Chem 101, however, will be written and turned in the old fashioned way via paper. The tutorials and other facilities will prove equally useful in Chem 102. Several Chem 102 instructors use the on-line tutorials, homework system, and grade book.

Schedule:

The typical MWF class day will offer a lecture beginning at 8:15 AM. The discussion groups will meet on Thursday morning in Dumbach Hall. This is the oldest building at the Lake Shore campus.

M	082911	First Day of Class. We will begin with Chapter 1 on basic concepts.
M	090511	Labor Day Holiday ☺ 🎵
F	092311	Exam I.
M	101011	Fall Break ☺ 🎵
F	102111	Exam II.
F	111811	Exam III.
F	120911	i-dotting and t-crossing.
M	121911	Two-Hour Cumulative Final Exam beginning at 9:00 AM.