

# Chemistry 102

## Spring 2012 Course Guidelines

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Class/Lecture Hours: Sullivan Center-Galvin Auditorium  
Office Hours: MWF 11:20-12:15 am and by appointment on TTh.  
Optional: **Weekly** Review Sessions: Time to be announced

### Materials:

**Text: Chemistry: The Central Science. 12th Edition: Theodore E Brown, H Eugene H LeMay, H Eugene LeMay, Bruce E Bursten, Catherine Murphy, Patrick Woodward (Prentice Hall)**

Please note that the text is a secondary source of information to help clarify concepts presented in lecture.

**The primary information is presented in class and also appears on website and lecture handout materials.**

**Basic Calculators** will be needed for homework assignments and exams but should have log/trig functions (typically under \$20). *Programmable calculators CAN NOT be used during exams,*

**Website:** [conradnaleway/chem102](http://conradnaleway/chem102) (also found on LUC blackboard)

**This course will cover essential material of Chapters 13-17 and 19-21 of**  
**The topics will include:**

1. Solutions and their Behavior	(Chapter 13).
2. Chemical kinetics, reaction rates, and reaction mechanisms	(Chapter 14).
3. Chemical equilibrium in gas and liquid phases	(Chapter 15).
4. Acids and bases, equilibrium in aqueous solutions	(Chapter 16).
5. Additional aspects of aqueous equilibria	(Chapters 17).
7. Chemical Thermodynamics: Entropy and Free Energy	(Chapter 19).
8. Electrochemistry and electron transfer reactions	(Chapter 20).
9. Nuclear chemistry	(Chapter 21) ( <i>selected topics</i> )
Special Topics in Chemistry	<i>Handouts</i>

### Exams:

There will be three fifty-minute exams and one **cumulative final exam**. Each exam will consist of questions and problems representative of the text, lecture, and discussion material. A calculator, periodic table, and a **single page of handwritten notes** (8.5 x 11 inches, both sides) may be used during each exam.

The single page of notes must be included with the exam prior to hand-in. All exams must be signed in the front, upper right hand corner. This signature will be taken as a statement of honest and completely independent work. Instances of academic dishonesty will warrant immediate failure of the course plus referral to the Dean's office. For more information on university policy, please read:

[http://www.luc.edu/academics/catalog/undergrad/reg\\_academicintegrity.shtml](http://www.luc.edu/academics/catalog/undergrad/reg_academicintegrity.shtml)

Exams will be graded and returned as soon as possible, usually the next 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 exam is returned**. There will be no exceptions to this rule!

**Exam Grade (70% of total grade)** will be assigned according to the highest percentage computed by the two methods:

- a) The average of the three 50 minute class exams, each weighing 1/3, plus completion of the final exam even though no included in grade. *Please note that attendance and completion of the final exam are mandatory and a grade of at least 60% must be achieved in the final!*
- b) The average of the top two 50 minute class exams plus the cumulative final. Thus the exams will weigh 1/3 each and the final will weigh 1/3. This relates to dropping the lowest in-class exam.

**NOTE:** Grade is NOT based upon a class curve. Thus individual performance determines one's grade and is not influenced by other's performance. This thus encourages each student to work collectively to help each other learn. Often discussing and working through a problem with someone else, helps one more than the other person, since it forces one to more critically see through a problem..

**Preassignment MasteringChemistry Homework** will represent at least **10%** of grade. Details will be presented in class.

#### **Quizzes and Participation during Discussions (10%):**

Multiple quizzes will be given during discussion periods throughout the semester based on the text and lecture materials.

**Final Grade** will be based upon:

**70%** Exam Grade (Above)

**10%** Homework (Largely Mastering Chemistry assignments)

**10%** Discussion Participation and Quiz Grades

**AND a FLOATING 10% of GRADE** will be assigned to either **Exam grade (above) OR Homework** whichever has the highest-grade value.

The following **grading scale** will be used:

90% - 100%	<b>A</b>
76% - 89%	<b>B</b>
60% - 75%	<b>C</b>
50% - 59%	<b>D</b>
< 50%	<b>F</b>

The 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 fundamentals as they appear. Students are urged to contact the instructor to discuss problems before they become serious.

#### **Help/Review Sessions:**

In preparation for exams, help/review sessions will be scheduled. Dates, times, and locations will be announced in class.

#### **Xerox Materials:**

There will be multiple hand-outs during the semester. These will include quizzes, problem sets, and old exams. Errors should be brought to the instructor's attention as soon as possible.