

Tentative Chemistry 102

Spring 2016 Course Syllabus

Instructor: Dr. Conrad Naleway
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Class/Lecture Hours: Flanner Hall 133 **MWF 8:15 -9:05 am OR TTh 8:30-9:45 am**

Office Hours: M 10-11am and T 10:30-11:30am *plus by appointment*

Optional: **Review Sessions:** Time to be announced

Text: Chemistry: The Central Science. 13th Edition: Theodore E Brown, H Eugene H LeMay, , Bruce E Bursten, Catherine Murphy, Patrick Woodward, Matthew E. Stoltzfus (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 (also found on LUC blackboard)

This course will cover essential material of Chapters 13-17 and 19-21. 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>)

Exams:

There will be three exams scheduled during the lecture periods and a cumulative final exam. All exams will consist of questions and problems representative of the lecture and text material. All answers to test problems must contain detail information illustrating the steps and method of solution. Answers must contain correct units since this is an essential aspect of the course.

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/cas/pdfs/CAS_Academic_Integrity_Statement_December_07.pdf

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! Each returned exam must be copied with original being returned to instructor with a hand written note stapled to exam addressing concern(s). **Only exams completed in INK are eligible for possible regrading.**

Exam Grade (70%)

Exam Grade will be assigned according to the highest percentage computed by the two methods:

- a> All three midterms plus the cumulative final are averaged. Thus each exam will weigh 1/4.
- b> The top two midterm exams weigh 1/4 each, and the final exam will weigh 1/2. This equates to the final exam score replacing the lowest midterm score.

Pre-assignment MasteringChemistry Homework (15%)

Grading settings for MasteringChemistry are visible within each assignment. Use each assignment to prepare for the upcoming lecture. Each assignment is weighted equally in the overall homework grade. Typically due twice per week online at masteringchemistry.com

Discussion Quizzes (15%)

A problem set will be assigned and **completed during discussion**. Each problem set will cover material from the prior week of lectures. No make-up problem set will be permitted, any missed problem set is scored as a zero. At the end of the semester, the lowest problem set score will be dropped.

Final Course Grade will be based upon:

70%	Exam Grade (2 options, see above)
15%	Homework (MasteringChemistry pre-assignments)
15%	Discussion Quizzes

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 should encourage 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. Tutorial help is also available at the Tutoring Center, www.luc.edu/tutoring

Assignment of Final Grade

A	100% - 90%
B	89% - 78%
C	77% - 60%
D	59% - 50%
F	<50 %

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: Additional Weekly reviews session will be scheduled to help in preparation for exams.