Revised Chemistry 102 Spring 2019 Syllabus

Instructor: Dr. Conrad Naleway
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Email: cnalewa@luc.edu Website: www.conradnaleway.net/chem102 *(also found on LUC blackboard)*

SI Leader: Michael Mendoz
Class/Lecture Hours: Flanner Hall 133 **MWF 8:15-9:05 am**
Office Hours: MW 9:15-10:15 am *plus by appointment*
Optional: **Review Sessions**: Time to be announced

Help/Review Sessions: *Additional Weekly reviews session will be scheduled to help in preparation for exams.*

Text: Chemistry: The Central Science. 14th 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,*

Course Content:

This course will cover essential material of Chapters 13-17 and 19-20 and parts of 11 and will include:

1. Intermolecularr Forces and Solutions Chemistry	**(Chapter 11 & 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).**

Course Objectives:

The material is highly cumulative over two semesters, such that you will be able to do the following:
- Quantify relationships between variables controlling chemical systems.
- Solve quantitative multistep problems combining multiple concepts within the systems.
- Differentiate among closely related factors, categorize problem types, & select appropriate tools to solve these problems.
- Apply chemical principles to explain natural phenomena.

Exams: Dates: 2/4, 3/1, 3/29, 4/15 Final: 5/2(Th) @ 9:00am

There will be 4 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.

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 (65%)

Exam Grade will be assigned according to the highest percentage computed by the two methods:
1) All three midterms plus the cumulative final are averaged. Thus each exam will weigh 1/5.
2) The top three midterm exams weigh 1/5 each, and the final exam will weigh 2/5. This equates to the final exam score replacing the lowest midterm score.

Pre-assignment MasteringChemistry Homework (20%) ID=MCNALEWAYCHEM102SPRING2019

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 MC will be worth 15% and Chem101 will be worth 5% of your grade

Discussion Problem Sets (15%)

A problem set will be assigned and must completed during discussion. Each problem set will cover material from the prior week of lectures. No make-up problem set will be allowed. 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:

65%	**Exam Grade (2 options, see above)**
20%	**Homework (MasteringChemistry pre-assignments)**
15%	**Discussion Problem Sets**

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.

Assignment of Final Grade

A	**100% - 93%**
A-	**90- 92 %**
B+	**89- 88 %**
B	**87% - 80%**
B-	**78-79 %**
C+	**77-76 %**
C	**75% - 62%**
C-	**60-61 %**
D	**59% - 50%**
F	**<50 %**

NOTE: In order to get a straight grade such as an A or B, one must have **AT LEAST ONE exam grade with that straight grade value**. 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.

Other Policies:

Academic Integrity: All students in this course are expected to have read and to abide by the demanding standard of personal honesty, drafted by the College of Arts & Sciences: http://www.luc.edu/cas/advising/academicintegritystatement/
A basic mission of a university is to search for and to communicate the truth, as it is honestly perceived. A genuine learning community cannot exist unless this demanding standard is a fundamental tenet of the intellectual life of the community. Students of Loyola University Chicago are expected to know, to respect, and to practice this standard of personal honesty. Academic dishonesty can take several forms, including, but not limited to cheating, plagiarism,

copying another student's work, and submitting false documents. Any instance of dishonesty (including those detailed on the website provided above or in this syllabus) will be reported to The Chair of The Department of Chemistry & Biochemistry who will decide what the next steps may be. Instances of academic dishonesty will warrant **immediate failure** of the course plus referral to the Dean's office. See university policy at: *http://www.luc.edu/cas/pdfs/CAS_Academic_Integrity_Statement_December_07.pdf*

Final Exam: The University sets the schedule for all final exams. The final will be held on May 2nd at 9:00 in Flanner 133. You will have exactly 2 hours to complete the exam. Additional time will not be granted, even if you arrive late. There will be no make-up final exams given under any circumstance, and the exam will not be given early, either.

Instructors may not reschedule final exams for a class for another day and/or time during the final exam period. There can be no divergence from the posted schedule of dates for final exams. Individual students who have four (4) final examinations scheduled for the same date may request to have one of those exams rescheduled. If a student reports having four final examinations scheduled for the same date, students should be directed to e-mail a petition to Lester Manzano, Assistant Dean for Student Academic Affairs, CAS Dean's Office (lmanzan@luc.edu).

Supplemental Instruction (SI): There are Supplemental Instruction (SI) study sessions available for this course. An SI leader, who is a student that has recently excelled in the course, leads SI sessions. Session attendance is open to all and is voluntary, but extremely beneficial for those who attend weekly. Times and locations for the SI session can be found here: www.luc.edu/tutoring. Students who attend these interactive sessions find themselves working with peers as they compare notes, demonstrate and discuss pertinent problems and concepts, and share study and test-taking strategies. Research shows students whom regularly attend sessions have higher grades at the end-of-the-semester and more deeply understand course concepts than those who do not. Students are asked to arrive with their Loyola ID, lecture notes, and textbook.

Course Repeat Rule: Effective with the Fall 2017 semester, students are allowed only THREE attempts to pass Chemistry courses with a C- or better grade. The three attempts include withdrawals (W).

After the second attempt, the student must secure approval for a third attempt. Students must come to the Chemistry Department, fill out a permission to register form or print it from the Department of Chemistry & Biochemistry website: http://www.luc.edu/chemistry/forms/ and personally meet and obtain a signature from either the Undergraduate Program Director, Assistant Chairperson, or Chairperson in Chemistry. A copy of this form is then taken to your Academic Advisor in Sullivan to secure final permission for the attempt.

Student Accommodations: If you have any special needs, please let me know in the first week of classes. The university provides services for students with disabilities. Any student who would like to use any of these university services should contact the Student Accessibility Center (SAC), Sullivan Center, and (773) 508-3700. Further information is available at http://www.luc.edu/sac/.

Loyola University Absence Policy for Students in Co-Curricular Activities (including ROTC): Students missing classes while representing Loyola University Chicago in an official capacity (e.g. intercollegiate athletics, debate team, model government organization) shall be allowed by the faculty member of record to make up any assignments and to receive notes or other written information distributed in the missed classes.

Students should discuss with faculty the potential consequences of missing lectures and the ways in which they can be remedied. Students must provide their instructors with proper documentation (develop standard form on web) describing the reason for and date of the absence. This documentation must be signed by an appropriate faculty or staff member, and it must be provided as far in advance of the absence as possible. It is the responsibility of the student to make up any assignments. If the student misses an examination, the instructor is required to give the student the opportunity to take the examination at another time.
(https://www.luc.edu/athleteadvising/attendance.shtml)

Accommodations for Religious Reasons: If you have observances of religious holidays that will cause you to miss class or otherwise effect your performance in the class you must alert the instructor ***within 10 calendar days of the 1st class meeting of the semester*** to request special accommodations, which will be handled on a case-by-case basis.