General Chemistry 127
FALL 2017

Professor Pam Mork [redacted]

Office Phone [redacted]

Office Hours:
Monday through Friday 10:00 to 11:00 AM

Required Materials:
- Kotz and Treichel, " *Chemistry and Chemical Reactivity-8th ed.,*" Brooks/Cole, 2012.
- non-programmable calculator (recommended model is TI-30XA)
- Laboratory Manuals (available for purchase at the tables thirty minutes prior to first lab meeting)
- Safety Goggles/Glasses (available for purchase at the tables thirty minutes prior to first lab meeting)
- Solutions Manual for the text is optional

This class does NOT satisfy the "N" graduation requirement.
You must earn at least a C- in CHEM 127 in order to advance to CHEM 128.

Grading: The "guaranteed" grading scale is as follows: A- : 90%, B- : 80%,C- : 70%, D- : 60%, F: ,60%. The guarantee is that while these cutoffs MAY go down, they WILL NOT go up.

Exams (3)	45%
Quizzes	10%
Homework (online)	8%
Homework (handouts)	2%
Laboratory	15%
Final Exam	20%
	100%

ALEKS: All students taking CHEM 127 are required to complete a summer math review course on ALEKS. This counts as one of your homework sets. It is due on September 9th. Completion of the assignment at an 80% level will give you full credit for the homework assignment. Completion at the 100% level will give you a 1% increase in your first exam score. ALEKS starts with a diagnostic test, and then it takes you through instructional modules. Plan on spending 10 hours on the assignment in order to reach the 100% level.

Cell Phones and Laptops: Even though many cell phones function as calculators, cell phones are not allowed during quizzes or exams. Laptops are not particularly useful during lecture and will not be allowed.

Tutoring and Additional Help: Chemistry tutoring is available in the Academic Enhancement and Writing Center (AEWC) located in the lower level of Fjelstad Hall. This is a service you must sign up for if you are interested. Tutoring is a two hour per week commitment for the duration of the semester to promote continuous learning and is available on a first-come, first-served basis. Contact [redacted] for more information.

Examination: Three regular class exams will be given on the dates indicated. You are expected to take the exams at the scheduled times. Exam times will not be moved because of exams in other courses. Plan ahead! If you need to miss the exam for legitimate reasons (serious personal illness or death in the family), you must

contact me **before** the exam and present documentation **before** a make-up exam will be permitted. The general time for make-up exams is Saturday mornings at 9:00 am.
OWL: You should buy an OWL code from the bookstore and register it immediately.

Quizzes: Both announced and unannounced quizzes are given during lecture periods. They will cover material studied since the last quiz or exam. No make-up quizzes will be given, but the lowest quiz score will be dropped.

Homework: The majority of the homework grade comes from the on-line homework system. You have unlimited tries to get the question correct. Homework handouts have specific due dates. **NO LATE** homework will be accepted under any circumstances.

Cheating: In the firm belief that one's integrity is an invaluable commodity, cheating in any form will not be tolerated. A zero will be given on any assignment where cheating has occurred. A report outlining the nature of the violation, as well as the consequences, will be sent to the Academic Dean. It is, therefore, in your best interest to do your work in such a manner that it cannot be questioned.

FERPA: Concordia's statement of compliance with the 1974 Federal Family Educational Rights and Privacy Act (FERPA or the Buckley Amendment) states: "Grades should not be distributed or posted in any fashion that permits identification of the student by anyone other than the student." In this class, I will give you the option of accessing your grades from the course's web site. Realize that this site is available to anyone with access to the web. However, no names will be included on this grade sheet. Instead, I will use a personal identification number, which will simply be the four (4) digits of your Concordia student ID number that follow the year of admission. Furthermore, the list will be sorted from lowest to highest number and so scores will in no way be alphabetized. Posting grades in this manner is not a violation of Concordia's policy on FERPA. **Exams will always be handed out individually**.

Laboratory: The laboratory aspect of the course compliments this lecture. Laboratory work begins during the week of September 1st. Please bring the laboratory notebook and manual to your first lab session. These items may be purchased from the Chemistry department secretary or from the Chem Club. You are required to attend each of your lab sessions. A separate lab syllabus will be provided during the first meeting of your lab.

The Chemistry Department faculty has agreed upon the following list of goals and student learning outcomes that graduating seniors are to develop by the time they complete the chemistry major.

The goals of the department are that a chemistry major should:

1. **Have a firm understanding of the core principles of chemistry as they apply to each of the major subdivisions of the discipline.**

   Student Learning Outcomes for Goal 1:
   a. Students will demonstrate competency within the discipline on standardized national exams.
   b. Students will be able to gather experimental data safely and accurately using a wide variety of laboratory instruments and methods.
   c. Students can apply their knowledge of chemistry to the explanation and interpretation of new or unfamiliar chemical information.
   d. Students illustrate good problem solving skills, independently and collaboratively.

2. **Be able to communicate their knowledge of the field, both through writing and speaking.**

   Student Learning Outcomes for Goal 2:
   a. Students can select and interpret relevant scientific literature from a variety of sources including libraries, electronic databases, and the Internet.
   b. Students can prepare a professional scientific paper.
   c. Students can prepare, present and defend a professional scientific talk.

d. Students employ knowledge and implement skills in professional experiences such as teaching, research, and internships.

3. **Be comfortable and competent in the use of modern technology for the acquisition, analysis, and presentation of chemical data and information.**

   Student Learning Outcomes for Goal 3:
   a. Students are able to design and implement experiments using the principles of the scientific method.
   b. Students are able to use modern instrumentation to collect and analyze data.

4. **Possess a holistic understanding of the relationship of chemistry to other sciences and to the needs of society as a whole.**

   Student Learning Outcomes for Goal 4:
   a. Students can connect relevant scientific literature to real world situations.
   b. Students can discuss the impact of the discipline on the environment.
   c. Students recognize the ethical issues related to the use and misuse of chemical information and materials.

Tentative Course Schedule

Month		Material to be Covered
Week 1	Aug 28-29	Concepts of Chemistry
Week 2	Sept 1-5	More Concepts and Introduction of the Atom
Week 3	Sept 8-12	Atoms, Molecules, and Ions
Week 4	Sept 15-19	Chemical Reactions
Week 5	Sept 22-26	**Exam 1: Chapters 1 – 3 September 25th**
Week 6	Sept 29-Oct 3	Stoichiometry
Week 7	Oct 6-10	Energy and Reactions
Week 8	Oct 13-17	**Exam 2: Chapters 4 – 5 Thursday, October 16th**
Week 9	Oct 20-24	Atomic Structure
Week 10	Oct 27-31	Periodicity
Week 11	Nov 3-7	Bonding and Structure
Week 12	Nov 10-14	Bonding and Structure
Week 13	Nov 17-21	Bonding and Structure
Week 14	Nov 24-28	**Exam 3: Chapters 6 – 9 Tuesday, November 25th**
Week 15	Dec 1-5	Gases and their Properties
Week 16	Dec 8-12	Intermolecular Forces and Review
	Dec 15	**Final Exam at 2 PM**