Wed, Sept 25

- Welcome to CHEM 110!
- Syllabus and Intro to ALEKS

ALEKS®

Chem 110: Who, Where, and What

Instructor: Dr. Colleen Craig | cfcraig@uw.edu | 202C Bagley

Office Hours: MF 9:45-10:45, or by appointment

Teaching Assistants: Addie Kingsland and Tracy Stanzel

Lecture: MWF in Kane 110 from 8:30 to 9:20 a.m.

Discussion Section: See online time schedule.

Course Website: http://canvas.uw.edu

Required Materials:

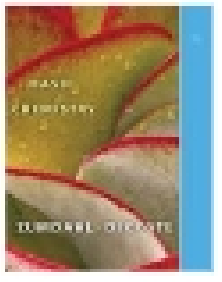
"Basic Chemistry" 7th edition, Zumdahl and Decoste

4 Scantron Forms for exams and surveys

Scientific calculator (NOT graphing)

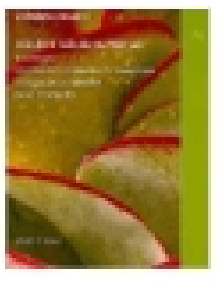
ALEKS access

About the books…



Basic Chemistry
REQUIRED
On reserve at Odegaard

Study Guide
Optional
On reserve at Odegaard



Student Solutions Manual
Optional
On reserve at Odegaard

All of these titles are available for rent from the UW Bookstore, or from the publisher (Cengage).

Course Organization

CHEM 110 is organized into five units:

1. **Relationships.**
   Goal: To develop relationships with each other and with the material.
2. **Communication.**
   Goal: To learn how to properly communicate scientific findings.
3. **Representation.**
   Goal: To represent matter at microscopic and macroscopic scales of measure.
4. **Connecting.**
   Goal: To move quantitatively between microscopic and macroscopic scales of measure.
5. **Change.**
   Goal: To describe chemical change qualitatively and quantitatively.

Learning Goals

At the end of CHEM 110, you will be able to:

- **describe** matter qualitatively at the microscopic and macroscopic levels.
- **predict** microscopic quantities given macroscopic data, and vice versa.
- **predict** the types and amounts of products of common chemical reactions.
- **analyze** a complex problem using chemical principles, **discriminate** between useful and un-useful information within the context of the problem, **design** a solution path, and **present** the result with appropriate descriptors.
- **evaluate** whether the result of a calculation makes physical sense, **analyze** sources of error in the approach (i.e., arithmetic, logical, or conceptual) and **redesign** the solution path to achieve an accurate result.

Textbook Coverage

Chem 110 covers eleven chapters of "Basic Chemistry."

Chapter #1	Chemistry: An Introduction
Chapter #2	Measurements and Calculations
Chapter #3	Matter
Chapter #4	Chemical Foundations: Elements, Atoms and Ions
Chapter #12	Chemical Bonding
Chapter #5	Nomenclature
Chapter #6	Chemical Composition
Chapter #8	Chemical Reactions: An Introduction
Chapter #7	Reactions in Aqueous Solutions
Chapter #9	Chemical Quantities
Chapter #10	Energy

We will follow an "atoms-first" course sequence.

Grading

This course is graded Credit/No Credit. You must earn 200/400 in the course *and* 50% or better in each course component to earn credit in this class.

	Points	Percentage
Exams (two at 100 pts/ea.)	200	50%
Reading Quizzes (online)	60	15%
Case Study Participation	60	15%
ALEKS (50% Objectives, 50% Assessment)	60	15%
Chemistry Concepts Survey, Iclicrials	20	5%
TOTAL	400	100%

Reading quiz is due the night *before* the class meeting at 9:00 pm.
ALEKS Objective is due the night *after* a lecture at 7:00 pm.

Class Meetings

- Most classes will follow a standard lecture format.
- About once a week, we will "flip" a class…you will watch a video lecture before class, and then work with your colleagues in class on a "case study" activity.
- All lectures, whether in person or online, will assume that you have done the assigned reading and completed the reading quiz!
- Respect your Classmates!
  - Arrive on time. If you must be late, please enter quietly.
  - If you must leave early, sit in the back or in the aisle.
  - Keep chatter to a minimum. Do not use electronic devices for non-class related reasons.

Discussion Sections

- Discussion sections are comprised of 25 students each, and are monitored by an experienced TA.
- There is a weekly meeting with your discussion section and TA every Tuesday (check Canvas for the time and place of your meeting).
- You are required to attend discussion section in Weeks 2 and 11 to complete a Chemistry Concepts survey.
- Attendance at all other discussion sections is optional, but **strongly recommended**.
- This is an excellent place to work on end-of-chapter problems with your TA and colleagues, or to discuss the Case Studies in more detail.

Exams

Exam #1
Mon, 10/28

Exam #2
Tues, 12/10

- All exams will take place in KNE 110
- Bring a prepared Scantron form, a few pencils, a calculator, and a photo I.D. to every exam.
- Be in your seat at least 5 minutes before exam starts.
- Exams are 50 minutes
- *All exams are cumulative.*

What Is ALEKS?

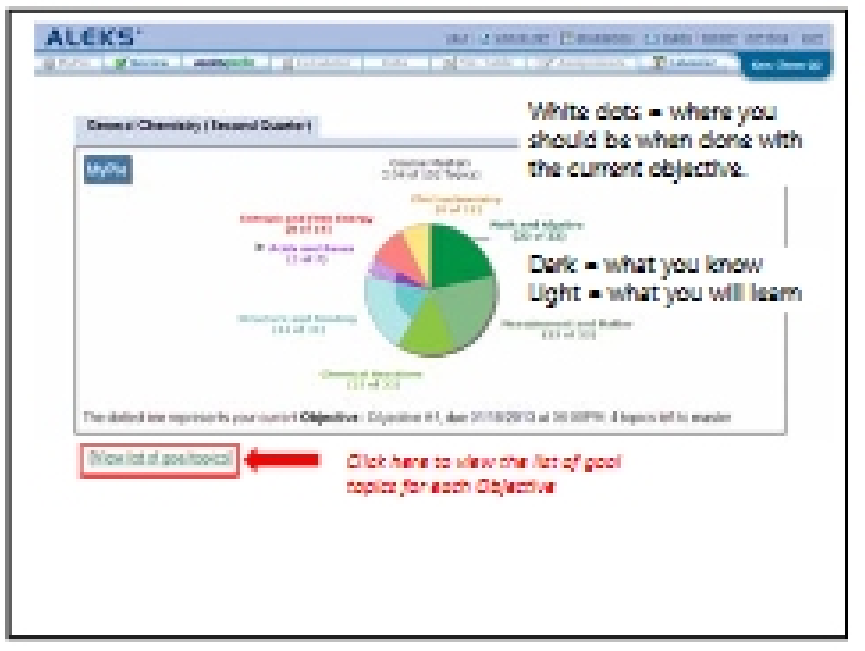
- ALEKS (Assessment and Learning in Knowledge Spaces) is an on-line learning environment for general chemistry.
- ALEKS is based on artificial intelligence. Rather than a static set of homework problems that everybody does, ALEKS adapts to the learning needs of each student.
- ALEKS has two components:
  - Working problems to develop skills
  - Assessment of your learning

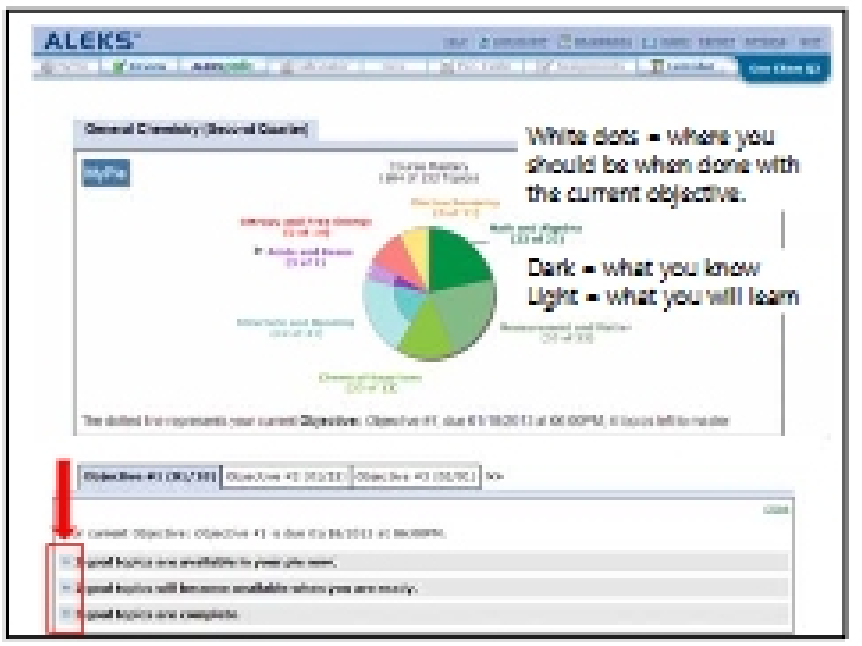
Registration in ALEKS

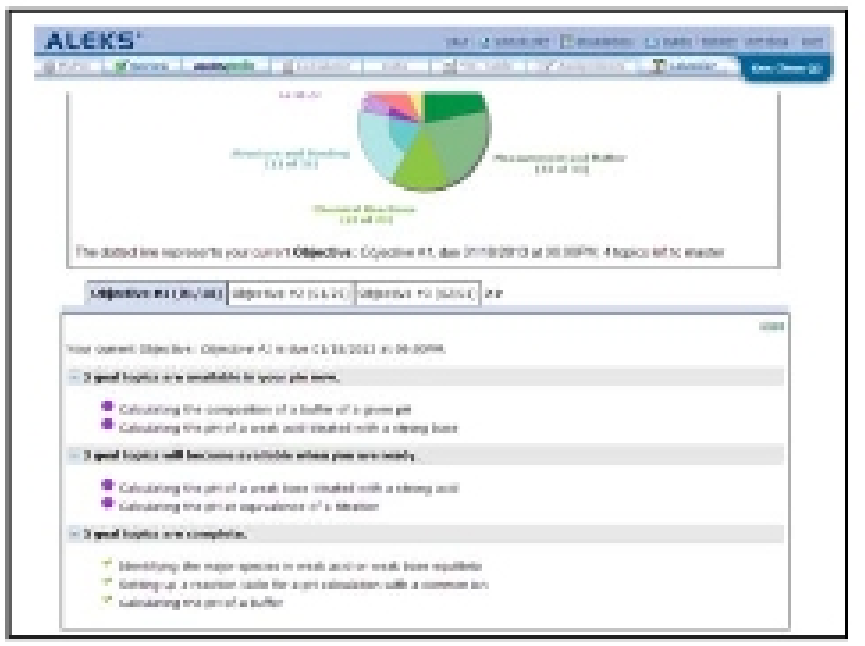
- First thing you need to do is get registered for ALEKS at www.aleks.com.
- Registration instruction including the specific course code for Chem 110 is available on the course websites. **Be sure to use the course code for your section!**
- 1 quarter of access is $30. Three quarters is $70, four quarters is $90. If you plan to take the full Chem 1x2 series, we recommend purchasing three or four quarters.

What will I do in ALEKS?

- When you enter the ALEKS environment you will go through a brief tutorial on how to use ALEKS.
- After the tutorial you will take an initial assessment which will determine where you will begin. This assessment consists of ~30 questions and will take about 1 hour.
- Your first Objective is due Tues, Oct 1. You cannot work on the objective until you have completed the Initial Assessment.







The ALEKS "Cycle"

- Each week (except when you have an exam) there will be a set of skills aligned with what we are covering in lecture. This set of skills is called an objective.
- The percent of the skills you master in the objective by the due date is your score for an objective.
- After an objective closes, you will take a learning assessment and then begin working towards the next objective.
  - *It is important to take all the assessments in ALEKS honestly!*

How is ALEKS Graded?

- Half of your ALEKS grade is based on your total objective score (the sum of the percent mastery for the objectives).

- Half of your ALEKS grade is based on the percent mastery of the course as determined by assessment.

- You may have to relearn a skill as a result of an assessment, but we will not take that skill away from your objective score.