

Chemistry 1010
Introduction to Chemistry
Spring 2017

Instructor: Dr. Don Davies

Office: TY 255K

Phone #: 801-626-6224

Office hours: MWF 10:30 - 11:20 a.m.

Lecture time: MWF 9:30-10:20 a.m.

Lecture location: LL125

faculty web: <http://faculty.weber.edu/ddavies1>

email: ddavies1@weber.edu

course web: <http://canvas.weber.edu> (flipped classroom)

book site: <http://www.conceptualchemistry.com>

Materials:

Conceptual Chemistry, 5th Ed. with Mastering access code, John Suchocki, (Required)

Electronic Device (Laptop computer or tablet)

Foundations of the Natural Sciences Learning Outcomes

1. Nature of science. Scientific knowledge is based on evidence that is repeatedly examined, and can change with new information. Scientific explanations differ fundamentally from those that are not scientific.
2. Integration of science. All natural phenomena are interrelated and share basic organizational principles. Scientific explanations obtained from different disciplines should be cohesive and integrated.
3. Science and society. The study of science provides explanations that have significant impact on society, including technological advancements, improvement of human life, and better understanding of human and other influences on the earth's environment.
4. Problem solving and data analysis. Science relies on empirical data, and such data must be analyzed, interpreted, and generalized in a rigorous manner.

The Physical Sciences Learning Outcomes

1. Organization of systems: The universe is scientifically understandable in terms of interconnected systems. The systems evolve over time according to basic physical laws.
2. Matter: Matter comprises an important component of the universe, and has physical properties that can be described over a range of scales.
3. Energy: Interactions within the universe can be described in terms of energy exchange and conservation.
4. Forces: Equilibrium and change are determined by forces acting at all organizational levels.

Course Description:

This course will provide a blend of basic principles of chemistry with real-life applications. The goal of this course is to help students become aware of and understand how chemistry has enriched our lives. While most of the material taught in this course will be concept oriented, some of the problems will involve basic math calculations. Chapters to be covered are listed in the homework section and a tentative lecture schedule is also provided in the back of this handout.

Minimum letter grade assignments are as follows:

A: 92 - 100%	B: 80 - 83.9%	C: 68 - 71.9%	D: 56 - 59.9%
A-: 88 - 91.9%	B-: 76 - 79.9%	C-: 64 - 67.9%	D-: 52 - 55.9%
B+: 84 - 87.9%	C+: 72 - 75.9%	D+: 60 - 63.9%	E: 0 - 51.9%

Note: I reserve the opportunity to adjust the grading scale or point contribution to your favor.

Lecture Composite:

	<u>Totals</u>
Mastering Chem Homework	200 points
Approx. 33 Quizzes (5 points each)	165 points
3 Course exams (100 points each)	300 points
<u>Final exam</u>	<u>200 points</u>
Total	865 points

Online Homework:

To help teach and assess your comprehension of chemical principles, online homework problems through Mastering Chemistry have been assigned. If you have purchased the textbook new through the bookstore, there should be an access code that can be used to register onto Mastering Chemistry. If you have purchased the textbook used or from a different supplier, you can purchase an access code directly from Pearson. I have looked through and selected the best problems from the bank of questions provided. There is a large variety of types of questions from multiple choice, ranking, short answer and calculations. Most questions give immediate feedback on your comprehension. On multiple choice questions, the point percentage is divided by the number of options provided minus one. So if there are 4 options (a-d), each missed response will deduct 33% from the total point value, and true or false type questions are all or nothing. There will also be a few essay type responses that are submitted to the instructor for grading. Generally, chapter problem sets will be due the class period after discussion on the chapter is completed (see the class schedule). Late completion of homework will be subject to a 10% deduction for each day it is late. Your homework score will be kept as a percentage and then at the end of the semester that percentage will be multiplied by 2 to bring the total value of homework up to 200 points possible.

Quizzes:

The first 10 minutes of most class periods will be reserved for taking a short quiz, containing between 3 and 5 questions. The electronic quiz will be made available on your canvas portal only during this time period. Questions on the quiz will pertain to the subject listed on that particular day, made available the previous day as a video on your canvas portal. To ensure the lecture video is watched and that thorough notes are taken, one of the questions will pertain specifically to the video. You may use any notes you have taken on the quiz. To ensure attendance in class, one of the questions will simply be to report a shape or symbol drawn on the chalkboard. Each of the quizzes will have a value of 5 points.

Examinations and Final:

Course exams, worth 100 points each, will consist primarily of material covered since the previous exam; however, due to the cumulative nature of chemistry, principles taught earlier in the course may be included on an exam. Each exam, except the final, will be administered in a designated testing center and no class will be held on exam days. The final exam will be worth 200 points. Approximately half of the final exam will focus primarily on the last three chapters covered, while the rest of the exam will be comprehensive. The final exam will be administered in class. Below are exam dates along with the tentative chapters to be covered on each exam.

Exam 1 - Wednesday February 1st, Ch. 1, 2, 3, 4

Exam 2 – Wednesday March 1st, Ch. 5,6, 7, 8

Exam 3 - Monday April 3rd, Ch. 9, 10, 11

Comprehensive Final (nearly half for Ch. 12,13,14) – Wednesday April 26th (9:00 – 10:50 a.m.)

If an emergency should arise and you must miss an exam, notify me as soon as possible. If the reason for the missed exam is acceptable and backed with evidence, I reserve the right to either allow you to take the exam at another time or apply the average of the remaining 2 exams adjusted according to the class averages of each individual exam. **Note:** any questions about the grading of a particular exam or quiz must be addressed within one week of the return date.

General Information:

Students having a disability, which inhibits their performance or participation, may receive special accommodations through Services for Students with Disabilities (SSD) located in the Student Service Center.

Violations of academic honesty and integrity will be subject to disciplinary actions, which may include University sanctions. For definitions regarding academic honesty and these sanctions refer to the Student Code in the office of the Vice President for Student Services.