CH 202 - General Chemistry (3 credits)

Instructor:

Dr. A. D. Richardson
Office: Gilbert Hall 8
Office hours: T, Th, 11:30 - 12:30 or by appt.
Phone: 737-9172
Email: richarda@chem.orst.edu

CH 201, 202: A general chemistry sequence for engineering students. **These courses may be subject to enforced prerequisites that restrict registration into the courses.**

Prerequisites: Intermediate algebra topics - simple linear equations, exponent rules, and logarithms. CH201 and CH 202 must be taken in order.

Textbook and Related Items:

Chemistry: The Central Science, Brown/Lemay/Bursten/Murphy/Woodward (Required)
Mastering Chemistry, Pearson Education. Available for purchase at the bookstore or online at: www.masteringchemistry.com (Required).
Solutions Manual to accompany *General Chemistry* (Optional).

Course Content:

Chapter 09: Thermochemistry
Chapter 10: Gases
Chapter 11: Liquids and Intermolecular Forces
Chapter 12: Properties of Solutions
Chapter 13: Chemical Kinetics
Chapter 14: Chemical Equilibrium
Chapter 15: Aqueous Equilibria: Acids and Bases
Chapter 17: Chemical Thermodynamics
Chapter 18: Electrochemistry

Student Learning Outcomes:

The successful student will:

1) Demonstrate mastery of basic chemical concepts and principles covered in this course as measured by performance on exams and participation in the lecture.
2) Demonstrate the ability to think scientifically and critically as measured by performance on exam questions requiring written explanations.
3) Demonstrate problem-solving skills applicable to a wide variety of problems drawn from the topics covered in this course, as measured by performance on exams and participation in the lecture.
4) Continue to build an understanding of how molecular structure, thermodynamics, kinetics, and equilibrium are interrelated and are all factors that affect the feasibility and outcome of chemical processes as measured by performance on exam and homework questions.

CH 201 and 202 has adopted the "atoms first" approach to teaching general chemistry. This means that early on we will discuss quantum mechanics and the seminal experiments that have lead to our current conception of atomic structure and function. One advantage to this approach is that it emphasizes the tentative nature of science. Science, and by extension chemistry, will be viewed as a process rather than a static set of facts.

Examinations:

Students will take two midterm exams, week 3 and week 7, and a comprehensive final exam, week 11.

Grading:

Exam 1*	100 pts	week 3
Exam 2*	100 pts	week 7
Final Exam *	150 pts	week 11 (Finals Week)
Mastering Chemistry	100 pts	
Qwizdom Participation	100 pts	

*If the percentage on the final exam is higher than the percentage on the two midterm exams, the exam component of the course grade will be calculated from the final exam score.

Course grade	**% of total pts**
A	92.0 - 100 %
A-	90.0 - 91.9%
B+	88.0 - 89.9%
B	82.0 - 87.9%
B-	80.0 - 81.9%
C+	78.0 - 79.9%
C	72.0 - 77.9%
C-	70.0 - 71.9%
D+	68.0 - 69.9%
D	62.0 - 67.9%
D-	60.0 - 61.9%
F	<60.0%

Services for Students with Disabilities - Accommodations are a collaborative effort between students, faculty, and the Disability Access Services (DAS) office. Students with accommodations approved through DAS are responsible for contacting the faculty member in charge of the course prior to, or during, the first week of the term to discuss accommodations. Student's who believe they are eligible for accommodations, but who have not yet obtained approval through DAS, should contact DAS immediately at 541-737-4098.

Expectations for Student Conduct - Student conduct is governed by the universities policies, as explained in the Office of Student Conduct: Information and Regulations. In an academic community, students and faculty, and staff each have responsibility for maintaining an appropriate learning environment, whether online or in the classroom. Students, faculty, and staff have the responsibility to treat each other with understanding, dignity, and respect.

Academic Integrity - Students are expected to comply with all regulations pertaining to academic dishonesty, defined as: *An intentional act of deception in which the student seeks to claim credit for the work or effort of another person or uses unauthorized materials or fabricated information in any academic work.* For further information, visit Avoiding Academic Dishonest, or contact the office of Student Conduct and Mediation at 541-737-3656