

CHEM 1311 – General Chemistry I
Course Syllabus
Summer 2009

Section numbers: 016, 116

Synonyms: 39748, 43774

Instructor: Dr. Shawn Amorde

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Office Hours: W 11am-20pm (RVS), TTh 12-1pm and 7-8pm (PIN)

COURSE DESCRIPTION

Covers the fundamental facts, laws, principles, theories, and concepts of chemistry necessary for further work in science or science-related subjects. Stresses atomic structure, periodic properties of matter, chemical bonding, and molecular geometry of organic and inorganic molecules, states of matter, stoichiometry, and properties of solutions. **Prerequisites: One year of high school chemistry or CHEM 1405; two years of high school algebra or MATD 0390.**

RECOMMENDED TEXTS/MATERIALS

Lecture: "Chemistry the Central Science", Brown, LeMay, Bursten, and Murphy, 11th edition.

Lab: "Chemical Principles in the Laboratory, ACC Custom 2000/2001 Edition" Slowinski, et al.

CALCULATOR

You will need a scientific calculator for lecture and lab activities. During lecture, exams, and lab any style calculator is acceptable.

INSTRUCTIONAL METHODOLOGY

This course consists of a lecture section.

COURSE RATIONALE

This course covers the fundamental facts, laws, principles, theories and concepts of chemistry necessary for further work in science or science-related subjects.

COMMON COURSE OBJECTIVES

These can be found at: <http://www.austincc.edu/chem/curriculum/index.htm>

COURSE EVALUATION/GRADING

Lecture

The lecture portion constitutes 100% of your grade.

Homework: Required homework will be assigned to each chapter in the text as well as, through the *Sapling Learning* homework system provided. Homework will be due before each corresponding unit exam. Homework will comprise 10% of your grade. Exam questions will come from the homework as well as lecture notes, so it is suggested you work all the assigned problems. We will be working some of these problems in class during the lectures and concentrating on homework problems during the exam reviews. A student solutions manual is available with your text book and I will make the answer keys to each homework set available *just before* the exam.

Bonus Questions: There will be a challenging bonus problem given in class about a week before each exam, these are due on the day of the exam in class. You may use the combined total of your bonus questions to replace an exam score at the end of the semester.

Exams: There will be four regular exams. All exams will be given in the testing center during the *tentative* dates shown below. Grades may be curved at the discretion of the instructor. **There will be a 10-point penalty on exams given, for whatever reason, after the set exam dates. There are no late exams without prior approval, or a doctor's note.** A comprehensive final will be given on the last day of class.

Final Lecture Grade: Each regular exam is worth 100 points, the final is worth 100 points. There are a total of 600 possible points, but only 500 will be considered after one test grade is dropped. This total point score will comprise 90% of the course grade.

LECTURE OUTLINE/CALENDAR

**Test dates are tentative and will be confirmed in class*

Unit 1: The Atom

The Foundation of Chemistry

Structure of the Atom

Nuclear Chemistry

***Exam 1** (Week of 9/14)

Unit 2: Molecules and Compounds

Chemical Periodicity

Chemical Bonding

Molecular Structures and Covalent Bonding Theories

Inorganic Nomenclature

Molecular Orbitals in Chemical Bonding

***Exam 2** (Week of 10/5)

Unit 3: Molecules, Formulas, and Reactions

Chemical Formulas and Composition Stoichiometry

Chemical Equations and Reaction Stoichiometry

Some Types of Chemical Reactions

***Exam 3** (Week of 11/9)

Unit 4: Molecules Interacting

Gases and Kinetic Molecular Theory

Liquids and Solids

Solutions

***Exam 4** (Week of 11/30)

Comprehensive Final (December 10th, in class)

FINAL EVALUATION:

Grading Scale for the course: A = 90-100%, B = 80-89%, C = 70-79%, D = 60-69%

GENERAL COURSE POLICIES

Attendance Policy: You are not required to attend lecture. In the lab, students must complete 60% (8 experiments) of the lab activities to pass the course.

Classroom Behavior: Please turn off cell phone ringers during lectures and lab discussions.

Missed Exams: If you miss an exam, you need to contact me as soon as possible. I always grade exams within two days of the deadline, and return them promptly. Once exams are returned, there will be no chance for a make-up.

Incomplete Grade Policy: Incompletes can be given if you complete 75% of the course work with at least a 70% average.

Withdrawal Policy: If you wish to drop the class, please do so yourself, the instructor will not be responsible, unless you make a specific request prior to the drop deadline.

TESTING CENTER POLICY

ACC Testing Center policies can be found at: <http://www.austincc.edu/testctr/>.

Exams will only be available in the PIN testing center.

Please See Attached Testing Center Policy Handout

STUDENT SERVICES

The web address for student services is: <http://www.austincc.edu/rss/index.htm>.

The ACC student handbook can be found at: <http://www.austincc.edu/handbook/>.

INSTRUCTIONAL SERVICES

The web address is: <http://www.austincc.edu/evp/newsemester/index.htm>, then click on "Campus Based Student Support Overview".

Statement on Scholastic Dishonesty

"Acts prohibited by the college for which discipline may be administered include scholastic dishonesty, including but not limited to, cheating on an exam or quiz, plagiarizing, and unauthorized collaboration with another in preparing outside work. Academic work submitted by students shall be the result of their thought, research or self-expression. Academic work is defined as, but not limited to, tests, quizzes, whether taken electronically or on paper; projects, either individual or group; classroom presentations; and homework."

Academic dishonesty will not be tolerated. Repercussions for students caught engaging in academic dishonesty will be determined by the instructor and may include an automatic "F" in the course, with no chance of withdrawal.

Statement on Students with Disabilities

"Each ACC campus offers support services for students with documented physical or psychological disabilities. Students with disabilities must request reasonable accommodations through the Office of Students with Disabilities on the campus where they expect to take the majority of their classes. Students are encouraged to do this three weeks before the start of the semester."

Students who are requesting accommodation must provide the instructor with a letter of accommodation from the Office of Students with Disabilities (OSD) at the beginning of the semester. Accommodations can only be made after the instructor receives the letter of accommodation from OSD.

Statement on Academic Freedom

"Institutions of higher education are conducted for the common good. The common good depends upon a search for truth and upon free expression. In this course the professor and students shall strive to protect free inquiry and the open exchange of facts, ideas, and opinions. Students are free to take exception to views offered in this course and to reserve judgment about debatable issues. Grades will not be affected by personal views. With this freedom comes the responsibility of civility and a respect for a diversity of ideas and opinions. This means that students must take turns speaking, listen to others speak without interruption, and refrain from name-calling or other personal attacks."

Student Discipline Policy

"Students at the College have the rights accorded to all persons under the Constitution to freedom of speech, peaceful assembly, petition, and association. These rights carry with them the responsibility for each individual to accord the same rights to others in the College community and not to interfere with or disrupt the educational process. As willing partners in learning, it is expected that students will comply with College rules and procedures. ACC students are recognized as responsible persons who neither lose the rights nor escape the responsibilities of citizenship. Enrollment in the College indicates acceptance of the rules set forth in this policy, administered through the office of the Campus Dean of Student Services. Due process, through an investigation and appeal process, is assured to any student involved in disciplinary action."

