CHEM 1311 - General Chemistry I Lecture
CHEM 1111 – General Chemistry I Lab
Combined Lecture and Lab Syllabus
Summer 2010

Course section number synonym meeting time
CHEM 1311 (lecture) 009 10786 MTWThF 10:40 a.m. – 12:10 p.m.
CHEM 1311 (lecture) 109 10787 MTWThF 10:40 a.m. – 12:10 p.m.
CHEM 1111 (lab) 009 10781 THF 8:00-10:30 a.m.
CHEM 1111 (lab) 109 10782 MWF 12:20-2:50 p.m.

Instructor: Dr. Debbie Sackett
Office Number: RGC 319.1
Phone Number: 223-3314
e-mail address: dsackett@austincc.edu
web page: http://www.austincc.edu/dsackett/
Office Hours: Monday and Wednesday 9:00-10:30 a.m.
Tuesday and Thursday 12:15-1:30 p.m.

COURSE DESCRIPTION
Lecture: 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.

Lab: This course is the laboratory to accompany CHEM 1311 lecture. Emphasis is placed on techniques, properties and reactions, and reinforcing principles offered in the lecture portion of the course.

Prerequisites: One year of high school chemistry or CHEM 1405 (CHEM 1305 & 1105); two years of high school algebra or MATD 0390.
Corequisites: CHEM 1311 and CHEM 1111 must be taken simultaneously

TEXTS/MATERIALS
• "Chemistry: The Central Science", 11th ed., by Brown, LeMay, Bursten, Murphy is the departmentally approved text. Use of an older edition of this or another college text is acceptable.

CALCULATOR
You will need a scientific calculator for lecture activities. Graphing calculators will NOT be allowed during tests.

COMMON COURSE OBJECTIVES
These can be found at: http://www.austincc.edu/chem/curriculum/index.htm
**Lecture**

**Homework:** Recommended homework will be assigned to each chapter, but not graded. Exam questions will come from the homework as well as lecture notes, so it is suggested you work all the assigned problems. Answer keys to the homework are available on the course Blackboard website. Ancillary material is available on my website.

**Exams:** There will be five 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. Make-up exams may be given with prior notice or under special circumstances (e.g., hospitalization or incarceration). There will be a 10-point penalty on exams given, for whatever reason, after the set exam dates. A comprehensive final will be given on the last day of class. The final exam is optional. You can take this exam if you wish to replace a lower grade on a previous exam with the grade from the final exam. If you take the final exam and it is your lowest grade, it will be dropped.

**Final Lecture Grade:** Each exam is worth 100 points. You will be graded on your 5 highest exams. There is not extra credit work available. Grading for the lecture follows a standard curve: A = 90-100%, B = 80-89%, C = 70-79%, D = 60-69%

**LECTURE OUTLINE/CALENDAR**

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

Unit 1: Introduction to Matter and Measurements (1.1-1.6, definitions from 5.1, 5.5)
Unit 2: Chemical Formulas and Composition Stoichiometry (2.6, 2.7, 3.3-3.5)
  *Exam 1 (June 7-8)*

Unit 3: Chemical Equations and Reaction Stoichiometry (3.1, 3.2, 3.6, 3.7, 4.5, 4.6)
Unit 4: Writing Chemical Equations (2.5, 4.1-4.4)
  *Exam 2 (June 15-16)*

Unit 5 Inorganic Nomenclature (2.8)
Unit 6: Structure of the Atom (2.1-2.4, 6.1-6.9)
Unit 7: Chemical Periodicity (7.1-8.5, 8.4-electronegativity)
  *Exam 3 (June 23-24)*

Unit 8: Chemical Bonding (8.1-8.7)
Unit 9: Molecular Structures and Covalent Bonding Theories (9.1-9.6)
  *Exam 4 (June 29-30)*

Unit 10: Gases (10.1-10.6)
Unit 11: Liquids and Solids (11.1-11.5, 11.7)
Unit 12: Solutions (13.1-13.5)
  Exam 5 (July 6-7)
**Comprehensive Final** (July 7th), in class, optional.
Laboratory

Preparation before lab:

- You must write a stepwise procedure before lab. It is not graded or worth any points. However, you cannot perform the lab without the procedure.
- You must complete the advanced study assignments (ASA) before lab. It is worth 10 points. It will be checked at the beginning of lab (for completion), and will be turned in for grading at the end of lab. You must show all calculations the space provided or on a separate piece of paper. No credit for late ASAs.

During lab:

- A lab quiz, worth 10 points, will be given at the beginning of lab. Quizzes will cover your knowledge of the experimental concepts and calculations. Some questions may be answered by referring to your written procedure, so prepare well for lab.
- Data/calculation page is worth 20 points and will be completed in lab, and turned in the same day. You must show your calculations.

Your final grade will be based on the results of your 12 of 13 best labs. There are no makeup labs. Each lab exercise is worth 40 points. There is no extra credit available.

<table>
<thead>
<tr>
<th>grade</th>
<th>percentage</th>
<th>points needed</th>
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</thead>
<tbody>
<tr>
<td>A</td>
<td>90-100%</td>
<td>432-480</td>
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<tr>
<td>B</td>
<td>80-89%</td>
<td>384-431</td>
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<tr>
<td>C</td>
<td>70-79%</td>
<td>336-383</td>
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<tr>
<td>D</td>
<td>60-69%</td>
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LAB OUTLINE/CALENDER

Date:
June 2 & 3  Introduction, Lab Orientation and Safety
June 4  Experiment 1 – Density of Liquids and Solids
June 7 & 8  Experiment 2 – Paper Chromatography
June 9 & 10  Experiment 13 – Heat Effects and Calorimetry
June 11  Experiment 42 – Water of Hydration
June 14 & 15  Experiment 5 – Identification of Compounds by Mass Relationships
June 16 & 17  Experiment 11 – Alkaline Earth Metals
June 18  Experiment 6 – Analysis of an Unknown Chloride
June 21 & 22  Experiment 43 – Spot Tests for Some Common Anions
June 23 & 24  Experiment 33 – Qualitative Analysis of Group I Cations
June 25  Experiment 36 – Ten Test Tube Mystery
June 28 & 29  Experiment 12 – The Geometric Structure of Molecules
June 30 & July 1  Library Research Assignment
July 2  Experiment 45 – Charles’ Law
July 5 & 6  lab checkout
GENERAL COURSE POLICIES
Attendance Policy: You are not required to attend lecture; however, your life will be so much easier if you do attend class.

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

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. This policy applies to both lecture and lab.

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. The drop deadline is June 30, 2010.

TESTING CENTER POLICY
ACC Testing Center policies can be found at: http://www.austincc.edu/testctr/.

Exams will only be available in the RGC testing center. RGC testing center (room 127) hours are as follows:
- Monday-Thursday: 8:00 a.m. – 8:00 p.m.
- Friday: 8:00 a.m. – 4:00 p.m.
- Saturday: 9:00 a.m. – 1:00 p.m.

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."