Chemistry 106X - Fall 2010  
General Chemistry  
Instructor: Christopher Iceman  
Class: MWF 9:15-10:15  
Office: Reichardt 192  
Classroom: Reichardt 201  
E-mail: christopher.iceman@alaska.edu  
Office Hours: MWF 10:30-11:30

Course materials
The following materials are required for the course and can be purchased in the UAF bookstore or elsewhere:

- *Chemistry and Chemical Reactivity* 7th Ed. by Kotz, Treichel, and Townsend. The following choices are available:
  

- OWL pin number for *Chemistry and Chemical Reactivity* 7th Ed. (1 or 2 semester)

- TurningPoint Technologies Response Card RF radio frequency clicker (new or used)

- Experiments in General Chemistry 106X: A Laboratory Manual (free! pick up in lab)

- American Chemical Society (ACS) General Chemistry Study Guide

- A non-programmable non-graphing scientific calculator is required for each exam. The Department of Chemistry and Biochemistry does not provide calculators for exams, the student must provide their own. A $10 calculator will meet the needs of this course so long as it has the standard arithmetic keys as well as $10^x$, LOG, EXP or $e^x$, LN and $x^y$ functions.

- A University of Alaska email address is required for all communication in the class. This also provides access to the Blackboard system for individual scores and grades.

The following materials are optional and may assist the student in their studies:

- *Chemistry and Chemical Reactivity* 7th Ed. *Student Solutions Manual* by Banks

- *Chemistry and Chemical Reactivity* 7th Ed. *Study Guide* by Moran and Townsend

- *Essential Algebra for Chemistry Students* 2nd Ed. by Ball
Who should take this course?
The course is intended for students who are interested in enriching their lives with chemistry. The study of chemical science is valuable from both an academic standpoint, fulfilling UAF’s core science credits, as well as introducing students to proper laboratory techniques. Chemistry 106X is the second semester of a two-semester series in general chemistry, emphasizing the quantitative and mathematical analysis of chemical phenomena.

Course expectations and outcomes
Students are expected to attend class, attendance will be monitored using clicker responses. Each day before class the student should read and digest the portion of the textbook appropriate as per the class schedule, including example questions. Active learning involves the student utilizing their sensory motor cortex (sight, smell, sound, taste and touch) in addition to their intelligence, to solidify through practice a concept the student has just read or heard about. The goals for this course are to continue build the student’s skills solving chemical problems, reading critically, formulating questions, completing laboratory experiments, and communicating information assimilated throughout the course by completing exams. Class conduct should be professional as well as respectful of the rights other students to a quiet and uninterrupted learning experience.

Grading
Grades will be posted to blackboard, which can be accessed from the UAF homepage. Class grades may be adjusted (curved) from the following schedule only in the students’ favor.

<table>
<thead>
<tr>
<th>Criterion</th>
<th>Max Points</th>
<th>Range of Points</th>
<th>Letter Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Examination 1</td>
<td>100</td>
<td>700 - 630</td>
<td>A</td>
</tr>
<tr>
<td>Examination 2</td>
<td>100</td>
<td>629 - 560</td>
<td>B</td>
</tr>
<tr>
<td>Examination 3</td>
<td>100</td>
<td>559 - 490</td>
<td>C</td>
</tr>
<tr>
<td>Final Examination</td>
<td>100</td>
<td>489 - 420</td>
<td>D</td>
</tr>
<tr>
<td>Class Participation</td>
<td>100</td>
<td>419 or less</td>
<td>F</td>
</tr>
<tr>
<td>OWL Homework</td>
<td>100</td>
<td></td>
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<tr>
<td>Lab Reports</td>
<td>100</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>700</strong></td>
<td></td>
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</tbody>
</table>

The instructor reserves the right to drop any student from class if that student has missed an exam without an excused absence, has missed more than two labs, appears to be failing as of September 17, 2010, or has many zeros for class participation grades. Students will be notified once via email before the drop, if the student corrects the deficiency, the student may remain in this class. Additionally progress reports for freshman students are due to the Registrars Office by October 8, 2010. The grade reported at that time will be based on the students scores on exam 1, OWL and the in-class participation grade as of October 1, 2010. The last day for instructor initiated withdrawal is October 29, 2010 (W grade appears on academic record). An incomplete grade will only be assigned if a student misses the final exam for an outstanding reason, such as a medical problem, a death in the family, etc.
Homework
Homework problems will be assigned using end of chapter questions from the textbook in coordination with the online web learning (OWL) program. Students should expect approximately 10 homework problems to be assigned each week. Homework assignments for the week will be due the following Monday at midnight on the OWL system clock. It is recommended that students promptly register and log in to OWL as homework will be assigned within the first class period.

Quizzes
Each student must obtain a radio frequency clicker (see above), which is used in lecture to answer questions projected on the overhead. Clicker numbers must be registered online in the Blackboard system to receive grades as responses are recorded electronically by the TurningPoint receiver and software on the classroom computer. No answers on paper will be accepted unless specified, any student found using any clicker other than their own will be in violation of the UAF honor code (see below). The quiz questions are likely to be similar to assigned homework problems, students should come prepared to class with any materials needed for the quizzes, as the quiz may be open book or open note. However, sharing of class materials will not be permitted. Clicker responses will also be used in part to monitor class attendance and participation scores.

Laboratory
The purpose of the lab is to do hands-on investigation of chemical principles and theories. Students will gain skills in scientific reasoning, experimental design, and use of chemicals as well as laboratory apparatus. Laboratory procedures will be available for printing on blackboard before the start of the lab section. Lab reports must be turned in the following week to be graded by the laboratory assistant, attendance in lab is mandatory for report credit. The laboratory portion of the student’s grade will be based upon the average of the student’s best 10 lab reports. Students may miss one lab with no impact on their lab grade, lack of attendance or failure to complete 8 laboratories will result in a failing grade for the course. If the student has special scheduling problems please discuss alternative options with Emily Reiter, Laboratory Director. Late reports may be accepted with penalized scores, excluding the last report of the semester which will not be accepted late. The first lab of the semester includes a safety review and must be attended in order to continue in the course.

Exams
The student is responsible for all information from text, lecture, homework, quizzes and assigned study questions. Any of these sources will be used to construct exams questions. No use of a cell phone, pda, graphing calculator or otherwise will be allowed during the exam. Three one-hour exams and a cumulative final exam will be given as per the course schedule. The final exam will be a two hour 70 item multiple choice exam provided by the American Chemical Society Examinations Institute. The required review text (see above) is an excellent source of information assist students in practicing and preparing for the final exam.

Absences
Make up examinations will be allowed for legitimate absences only, an unexplained absence from an exam results in a zero. If the student anticipates an absence (intercollegiate sports, travel for military or university business) talk to the professor before the exam to make possible arrange-
ments. If the absence is unexpected (illness, family or personal calamity) talk with the professor at the earliest possible opportunity. Please note that makeup exams require the student to have no knowledge of the original exam. No extensions, makeup or late work will be accepted otherwise, however clicker and homework grades will receive a 10% buffer for any missed assignments to be utilized by the student at their discretion.

**Ethical considerations**
The Chemistry and Biochemistry Department *Policy on Cheating* states the following:

> Any student caught cheating will be assigned a course grade of F. The student’s academic advisor will be notified of this failing grade and the student will not be allowed to drop the course.

Examples of cheating include, but are not limited to:

- Copying another student’s answer while taking a quiz or exam
- Copying another student’s answer in response to in-class questions
- Using another student’s clicker for any reason
- Using another student’s work while writing lab reports

Students must also adhere to the University of Alaska *Honor Code* which states in part:

> Students will not collaborate on any quizzes, in-class exams, or take-home exams that will contribute to their grade in a course, unless permission is granted by the instructor of the course. Only those materials permitted by the instructor may be used to assist in quizzes and examinations.

> Students will not represent the work of others as their own. A student will attribute the source of information not original with himself or herself (direct quotes or paraphrases) in compositions, theses, and other reports. No work submitted for one course may be submitted for credit in another course without the explicit approval of both instructors. Violations of the Honor Code will result in a failing grade for the assignment and, ordinarily, for the course in which the violation occurred. Moreover, violation of the Honor Code may result in suspension or expulsion.

**Help and tutoring**
There are a large number of sources for help in the case that the student is having difficulty with the material. The student may make an appointment to see the instructor for help. (The instructor will attempt to reply to email questions within 24 hours during the school week.) The Chemistry and Biochemistry Department may offer free tutoring services, and the student may see a tutor for additional assistance. The student may also see any laboratory teaching assistant for help during the teaching assistant’s office hours.

**Disabilities**
Students with a physical or learning disability are required to identify themselves to the Disability Services office, 474-7043, located in the Center for Health and Counseling. The student must provide documentation of the disability. Disability Services will then notify the instructor of special arrangements for taking tests, working homework assignments, and doing lab work.

**Course outline and calendar** (next page)
November 2010

**Labor Day**

**Thanksgiving**

December 2010

**Christmas (observed)**

**Christmas (observed)**

**New Year's Day**

**Election Day**

**Veteran's Day**

**Thanksgiving**

**Christmas (observed)**

**Christmas (observed)**

Figure 1: Course outline is subject to change depending on class progress.