

Chemistry 721, Honors, is an introductory chemistry course for upper level students in a college preparatory program. Chemical principles and concepts are developed through lecture, demonstrations, experimental observations, and individual and group activities.

### COURSE OUTLINE:

#### *1st semester*

1. Matter, Energy & Changes
2. Measurement, Problems & Significant Digits
3. Atomic Structure
4. Chemical Equations & Reactions  
Redox Reactions
5. Periodic Law
6. Solutions & Ionization
7. Formulas, Compounds & Oxidation Numbers

#### *2nd semester*

1. Electron Arrangement & Quantum Numbers
2. Stoichiometry Problems
3. Gases & Kinetic Theory
4. Ideal Gas Law, Density & Stoichiometry
5. Liquids, Solids & Equilibrium
6. Chemical Bonding
7. Acids, Bases & pH
8. Kinetics

(Schedule is subject to change based on constraints of time and the particular needs of our students.)

### GRADING:

- 35% Labs and daily work (15% lab reports and 10% quizzes, classwork, homework)  
45% Tests (there will be a test on each of the topics in the course outline)  
20% Final Exam

### MATERIALS:

pencil, pen, calculator, loose-leaf binder (at least 1 inch, 3 ring, not a folder), text: Chemistry by Spencer, Bodner & Rickard. **Students must bring all materials to class each day**, or run the risk of detention.

### ASSIGNMENT AND TEST MAKE-UP POLICIES:

Problem solving and concept development are essential to the understanding of chemistry. All assignments will be graded with the chapter test, but spot checks will be done on an occasional basis to see if the students are keeping up. To be successful in this course, students **must** keep up with homework assignments.

Student who are absent are still responsible for homework assignments. Missed or late assignments will be given a grade of zero, unless the student receives permission from the instructor to be late.

**Students who are absent one or two days before a test will be expected to take the test. Students who are absent for one or two days, and who miss a test are responsible to take the test on the day that they return to school ( students must find the instructor before school or during lunch if they cannot stay after school to make up a test). Make up tests are not scheduled during class time.**

Students who are absent for several days and miss a test are responsible to tell

the teacher that they need to make up the test. Students must speak to the instructor to make arrangements to make up the test on the day that they return to school. It is the responsibility of the student to find out what work has been assigned and what lab work has been assigned and to complete the work.

Make up tests will be given for unexcused absences and will be graded at 65%.

Any student missing a major test due to late arrival, early dismissal, or medical appointment must see the instructor during that school day. Students are still expected to take a test on that day during lunch or free period. Exceptions can be made only with the permission of the instructor. Students who fail to see the instructor on or before the absence will be allowed to make up the test and will receive only 65% of the credit.

### SAFETY AND CARE OF EQUIPMENT:

Because of the potential hazardous nature of many science materials, students may NOT touch any science equipment without authorization from the instructor.

Students must follow written safety regulations and oral directions from the teacher at all times.

Laboratory procedures must be followed exactly; students may NOT use equipment in any other manner.

Laboratory work is an interesting and exciting part of a science course. Students who follow regulations will be allowed to participate in all classroom activities.

Students are responsible to act in a manner that promotes their own and their classmates' safety.

### CLASSROOM PROCEDURES:

Students are expected to bring textbook, notebook, loose-leaf, pencil, pen, and calculator every day.

Each student is to be in the seat when the bell rings. Students must move out of the doorway and into class upon arrival.

Students are expected to remain in their seats and to be silent during class time unless otherwise instructed by the teacher.

Students should raise their hands **and** wait to be called on before speaking.

Each student is expected to keep a record of grades earned in the chemistry class. Grades reports will be issued periodically through the semester and *documented* problems will be resolved in your favor.

Students are expected to come to class with homework assignments complete to the best of their ability even in the event of an absence from school for the previous day(s).