



Dallas High School Home of the Dragons



AP Chemistry

2013-2014

Instructor: Lee Jones

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Office Hours: Tues-Friday 10:10-11:00 and 3:00-3:30. Additional times by arrangement.

Course Description: The AP Chemistry course is designed to be the equivalent of the general chemistry course usually taken during the first college year. For some students, this course enables them to undertake, in their freshman year, second-year work in the chemistry sequence at their institution or to register in courses in other fields where general chemistry is a prerequisite. The objective of the course is for students to master the concepts, take the AP Chemistry test and achieve scores accepted by universities as qualification for second year course work. Students in AP Chemistry should attain a depth of understanding of fundamentals and a reasonable competence in dealing with chemical problems. The course contributes to the development of the students' abilities to think clearly and to express their ideas, orally and in writing, with clarity and logic. Emphasis is placed on chemical calculations and the mathematical formulation of principles. Some of the initial principles in Chemistry will be reviewed briefly but the majority of the material covered will be more detailed and beyond the scope of the basic Chemistry course. Mastery of advanced laboratory techniques will also be expected.

Texts: Chang Chemistry, 7e.

Online Practice: All students are required to sign up for the online service www.webassign.net. The cost is \$14.50 per student for the whole year. If the cost is a problem, please see Mr. Jones.

Course Outline

	Unit Topic	Summative Assessment	"Big Ideas" Addressed
Unit 1	Atomic Theory	Unit 1 Test	1, 2, 3
Unit 2	Bonding	Unit 2 Test	1, 2, 3
Unit 3	Solutions and Reactions	Unit 3 Test	1, 3
Unit 4	Thermodynamics	Unit 4 Test	3, 5
Unit 5	Equilibrium	Unit 5 Test	6
Unit 6	Electrochemistry	Unit 6 Test	1, 3
Unit 7	IMFs	Unit 7 Test	2, 3, 5
Unit 8	Solutions	Unit 8 Test	1, 3, 6
Unit 9	Gases	Unit 9 Test	2, 3, 5
Unit 10	Acids and Bases	Unit 10 Test	6
Unit 11	Kinetics	Unit 11 Test	4
Unit 12	Nuclear	Unit 12 Test	1, 2
Unit 13	Organic	Unit 13 Test	1, 2, 3

Standards to Be Assessed:

Big Idea 1: The chemical elements are fundamental building materials of matter, and all matter can be understood in terms of arrangements of atoms. These atoms retain their identity in chemical reactions

Big Idea 2: Chemical and physical properties of materials can be explained by the structure and the arrangement of atoms, ions, or molecules and the forces between them

Big Idea 3: Changes in matter involve the rearrangement and/or reorganization of atoms and/or the transfer of electrons

Big Idea 4: Rates of chemical reactions are determined by details of the molecular collisions

Big Idea 5: The laws of thermodynamics describe the essential role of energy and explain and predict the direction of changes in matter

Big Idea 6: Any bond or intermolecular attraction that can be formed can be broken. These two processes are in a dynamic competition, sensitive to initial conditions and external perturbations

Career Related Learning Standards: Career-related learning standards (CRLS) are fundamental skills essential for success in employment, college, family, and community life. We have integrated the Personal Management standard from the CRLS into all courses at DHS. **This standard will be assessed and communicated independent of the academic grade.** It is included below and mainly includes behaviors that will be assessed in this course.

- **Personal Management Standard:** Exhibit appropriate work ethic and behaviors in school, community and workplace.
 - Students will identify tasks that need to be done and initiate action to complete the tasks.
 - Students will plan, organize and complete projects and assigned tasks on time, meeting agreed upon standards of quality.
 - Students will take responsibility for decisions and actions and anticipate consequences of decisions and actions.
 - Students will maintain regular attendance and be on time daily.
 - Students will maintain appropriate interactions with colleagues.

Grading and Assessment:

Student's final grade for each course will be broken down into two categories:

- 1) **Academic:** based on assessments, tests, projects and performances that measure learning.
- 2) **Personal Management:** based on homework completion and other behaviors measuring the CRLS personal management standard.

The Final grade is calculated as follows: 90% of the course grade will be based on the **Academic** grade and **10%** on the **Personal Management** grade.

- Any items included in the Academic grade (PA) may be retaken and the higher grade recorded. Teachers may extend the retake time period, but as a rule all retakes need to be done within 1 week of the initial assessment.
- Students will complete extra preparation before retaking an assessment.
- Personal management work turned in late may be reduced by up to 50% credit.
- Retakes are not allowed on Personal Management assignments.

Academic Integrity: We expect students to express academic integrity by doing their own work and properly documenting information gathered from other sources. Students who violate the principles of academic integrity will be subject to disciplinary consequences (see Insubordination section of the on-line student agenda).

Tardies and Unexcused Absences: Points will be given towards the Personal Management grade at the end of each grading period (9 weeks/18 weeks) for daily attendance and punctuality. Points will be deducted for each tardy and each unexcused absence in that 9-week grading period. Overly disruptive behavior may also result in loss of attendance points.

Classroom Needs:

In order to meet the strict lab requirements established by the College Board, all students will need a composition notebook to record all lab information. I personally recommend a "graph paper" composition notebook, but college ruled will work as well.

Classroom Needs:

I would appreciate the following items to donate to a collective “bin” of student supplies:

- Scotch Tape
- Colored pencils
- Nitrile gloves (small, medium, large)

Parents: Please keep the rest of the syllabus. By signing this form, you acknowledge that you have read and fully understood the expectations, rules, and standards associated with AP Chemistry. If you have questions, please call 503-623-8336 ext 3910 or email using the email address provided in this document.

Parent Name: _____

Parent Signature: _____

Parent email Address: _____

Parent Phone: _____

Student Name: _____

Student Signature: _____