**AP Chemistry Syllabus**

**Instructor Information:**

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Tutoring Hours: M, W, Th (2:00 -2:45) (Please check with teacher in case of conflicts)

**Course Description**:

This AP Chemistry course is designed to be the equivalent of the general chemistry course usually taken during the first year of college. For most students, the course enables them to undertake, as a freshman, second year work in the chemistry sequence at their institution or to register in courses in other fields where general chemistry is a prerequisite. This course is structured around the six big ideas articulated in the AP Chemistry curriculum framework:

Big Idea 1: Structure of matter

Big Idea 2: Properties of matter-characteristics, states, and forces of attraction

Big Idea 3: Chemical reactions

Big Idea 4: Rates of chemical reactions

Big Idea 5: Thermodynamics

Big Idea 6: Equilibrium

A special emphasis will be placed on the seven science practices, which capture important aspects of the work that scientists engage in, with learning objectives that combine content with inquiry and reasoning skills.

**Required Materials:**

3 ring binder (optional dividers for chapters)

Loose leaf paper

Pens (blue or black) and/or pencils

Scientific or graphing calculator (while not required, a graphing calculator is recommended. Please check the College Board website for approved calculators)

**Grading Policy:**

Nine week grades will be calculated on a total point basis. Daily objectives/work and upcoming assignments are posted on the board. A semester exam will be given. Its percentage value will be determined upon approval by the school/ school board.

Assignment values are as follows:

*Tests:* 200 points (Tests are usually given after one or two chapters and may include prior material. Tests are multiple choice and free response in the format of the AP exam. Approximately 3 or 4 tests per nine weeks can be expected)

*Homework/Classwork:* 50 points per chapter. (Homework will require approximately 2-3 hours per week. This is a fast paced course and you are expected to keep up with the chapter problems and readings. Homework will be checked at the beginning of class and collected prior to tests.)

*Laboratory Experiments:* 50 points (One formal lab report will be required per quarter and will be worth 100 points)

*Quizzes:* 25 points (Quizzes will be given at the beginning of class and will be announced in advance. Quizzes will cover current content and be similar to homework/chapter review problems.)

**Academic Honesty:**

All students are expected to be honest and follow the standards of the IB/Summerlin programs.

**Make Up Work:**

Students who are absent are expected to complete their make-up assignments within two days of the absence. Make up work will be in the make-up tray on my desk. It is your responsibility to ensure make up work is completed in a timely manner. Any assignment due on the day of an absence is due upon your return to class. Tests/quizzes will be made up during class time upon your return to class. Missed labs will either be made up after school or excused at the teacher’s discretion.

**Late Work:**

You will be given one pass for a late homework assignment per nine weeks . The late assignment will be accepted one day late (if an A day, you must turn it in on the B day). Other late assignments will not be accepted. Late passes may NOT be used on formal lab reports.

**Class Expectations:**

You are expected to behave in a responsible manner. Please be respectful of others and their belongings. Be on time, prepared for class with all necessary materials. Usage of electronic devices is not allowed in the classroom. You will be asked to put these items away during class time in your backpack in the back of the room. The possession of an electronic device during a test or quiz will result in the issuance of a zero grade with no make-up. Please keep classroom distractions to a minimum—remain in your seat, remain quiet while others are speaking, limit bathroom breaks to between classes. You will be given 4 passes per nine weeks. Failure to follow these expectations will result in a warning, parent contact, or referral. The code of conduct will be followed.

**Additional Help:**

AP chemistry is a fast paced course. If you are struggling, please seek immediate help. I am available for tutoring Monday, Wednesday, and Thursday after school as well as before school Monday through Friday. Please check with me to ensure there is no other conflict on that day. Use your textbook as a resource. Do additional problems beyond those assigned. Make sure you work sample problems during your study time. Review prior material that has been covered. I am also available via email if you encounter problems on homework.

**Course Calendar:**

1st Nine Weeks:

Introduction to Matter and Measurement

Atoms, Molecules, and Ions

Chemical Reactions and Stoichiometry

Aqueous Reactions

Thermochemistry

Electronic Structure of Atoms

2nd Nine Weeks:

Periodic Properties of Elements

Concepts of Chemical Bonding

Molecular Geometry and Bonding Theories

Gases

Properties of Solutions

Chemical Kinetics

3rd Nine Weeks:

Chemical Equilibrium

Acid-Base Equilibria

Aqueous Equilibria

4th Nine Weeks:

Chemical Thermodynamics

Electrochemistry

AP Review