



ADVANCED PLACEMENT CHEMISTRY

Insert Teacher Name

Insert Room Number

Full Year

Insert Period

Insert Email Address

COURSE DESCRIPTION

The Advanced Placement Chemistry course will emphasize the theoretical aspects of chemistry. Topics such as the structure of matter, kinetic theory of gases, chemical equilibria, chemical kinetics, and the basic concepts of thermodynamics are presented in considerable depth.

Instruction will be directed toward developing the student's ability to reason with the fundamental facts of science. Students should expect to spend approximately 150 minutes in the classroom and 180 minutes in the laboratory each week. It is assumed that the student might spend an additional six hours a week in unsupervised individual study.

The difference between college chemistry and high school courses lies mainly in the laboratory. Observing chemical substances and reactions, recording data, and calculating and interpreting results based on the quantitative data are required. The students will gain experience in working with glass, filtrating, titrating, collecting and handling gases, colorimetry, potentiometry, synthesis of compounds, and analysis and identification of unknowns.

COURSE OBJECTIVES

Students will understand that:

- The periodic table displays the elements in increasing atomic number and shows how periodicity of the physical and chemical properties of the elements relate to atomic structure
- Biological, chemical and physical properties of matter result from the ability of atoms to form bonds from electrostatic forces between electrons and protons and between atoms and molecules
- The conservation of atoms in chemical reactions leads to the principle of conservation of matter and the ability to calculate the mass of products and reactants
- Chemical reaction rates depend on factors that influence the frequency of collisions of reactant molecules
- The bonding characteristics of carbon allow the formation of many different organic molecules of varied sizes, shapes and chemical properties, and provide the biochemical basis of life.

UNITS OF STUDY

- Structure of Matter
- States of Matter
- Reactions
- Descriptive Chemistry

COURSE POLICIES AND REQUIREMENTS

GRADING

Summative Assessments: 100%
Insert Categories/Weighting (ie. Papers – 30%)
Formative Assessments: 0%
Behavioral Characteristics: 0%

Insert Additional Grading Information Here

MATERIALS

Insert Course Materials Here (ie. Textbook, Binder, Calculator, Highlighters)

EXPECTATIONS OF STUDENTS

Insert Course Expectations Here

EXTRA HELP

Insert Course Expectations Here

Insert Additional Information Here