

JEFFERSON TOWNSHIP HIGH SCHOOL COURSE OUTLINE AND REQUIREMENTS

COURSE: CHEMISTRY CP

DEPARTMENT: SCIENCE

YEAR: 2011-2012

DESCRIPTION: Chemistry is concerned with the systematic identification and classification of matter as elemental or compound substances. The properties and behaviors of different kinds of substances is a consequence of their chemical structure and composition. This course studies a variety of concepts within the field of chemistry, with an emphasis on chemical stoichiometry and the relationship between the periodic table and the chemical and physical properties of elements and their compounds. Chemical nomenclature, atomic structure, bonding theories, periodic properties, solution calculations, gas laws, the properties of solids and liquids, solution properties, and acids and bases are also studied in this course.

CONTENT: An outline of major topics covered in class is listed below:

Laboratory Safety and Procedures
Measurement and Uncertainty
Matter and Energy
Atomic Structure
Electron Structure
The Periodic Table
Chemical Bonding
Chemical Nomenclature

Chemical Reactions
Stoichiometry
The Gas Laws
Water and Solutions
Acids, Bases and Salts
Acid-Base Reactions
Oxidation and Reduction

RELATED REQUIREMENTS: Students must keep a daily notebook of topics covered, complete all assigned class work, homework, and lab reports, and must make up all work missed due to absence. In addition to any other homework assigned, students are expected to review and study notebooks every night in order to prepare for the following day's activities. Appropriate behavior and observance of safety guidelines are **mandatory** during laboratory activities. All students must take a midterm exam and final exam.

EXTRA HELP AND MAKE-UP: Extra help and make-up will be available after school on days announced to students or by special appointment with the teacher.

EVALUATION: Marking period and final averages will be determined by using the grading scale outlined in the current edition of the Student Handbook. Numerical grades will be assigned based on the quality of the student's work on homework assignments, laboratory reports, quizzes, tests, midterm and final examinations, supplementary assignments and the quality and extent of the student's participation in class.