

# Chemistry, Honors Chemistry and AP Chemistry

## Course Overview:

A conceptual course of science involving coursework and laboratory work designed to present chemistry in the light of modern theory. Chemistry includes the study of the composition of matter and its changes, the organization of the elements, and chemical calculations. The student is responsible for having a class notebook, composition notebook with graph paper and a scientific calculator. Prerequisites: Algebra I and Biology, with at least an earned grade of "B" recommended. *This class meets seven periods per week for ½ unit of credit each semester.*

*Honors Chemistry-* This course is a systematic, conceptual study of chemistry that challenges the student to develop an understanding of modern theories and laws of chemistry. Problem solving skills are integral to this course. In many cases, quantitative arguments are used to develop these laws and theories. The laboratory work is designed to guide the concepts-an inquiry approach is used. The use of excel and PASCO is used for data acquisition and manipulation. **Prerequisites:** Biology or Honors Biology, concurrent enrollment in Algebra II and staff recommendation. Biology students should see instructor of Honors Chemistry for extra preparation, which could be done over the summer. The student is responsible for having a scientific calculator. *This class meets seven periods per week for ½ unit of credit each semester.*

AP Chemistry-This program provides an opportunity for high school students to pursue and receive credit for college level Chemistry course work while in high school. In order to give the students this opportunity, the course is designed to meet the expectations set forth by the *AP Chemistry Course Description and the AP Chemistry Learning Objectives* which can be found at [www.apcentral.collegeboard.com](http://www.apcentral.collegeboard.com).

The AP Chemistry course is designed to provide a comprehensive first-year college chemistry experience, both in lecture and in the laboratory. Topics studied include molar relationships, periodicity, atomic theory, bonding, geometry, gas laws, chemical kinetics, equilibrium, thermodynamics, redox reactions, buffer systems, coordination complexes, and organic chemistry. Emphasis is placed on problem solving and critical thinking skills. Students are required to take the AP Chemistry

exam. Prerequisites: Biology and Chemistry (regular or honors) with a final chemistry grade of "A" or "B" and recommendation of chemistry teacher. Concurrent enrollment in Pre-calculus or Calculus is recommended. *This class meets eight periods per week for ½ unit of credit each semester.*

### **Textbooks:**

World of Chemistry Zumdahl accessed <https://login.cengage.com/cb/> access codes provided at the start of the course

Chemistry AP Edition Zumdahl accessed <https://login.cengage.com/cb/> access codes provided at the start of the course

### **Assessments:**

Formative and summative assessments using classwork, lab work, homework, projects and tests

Teacher Created Assessments

AP Exam

**[CLICK HERE](#) for Chemistry Standards and Learning Goals:**