

## Course Description for AP Chemistry at B-CC

### Aims/Objectives of the Course

The goal of AP Chemistry is to replicate a two-semester, first-year college chemistry course series for science majors. In many colleges and universities, science majors must take a “Chemistry101” course. The high school AP Chemistry course covers the same content, with the same difficulty, while emphasizing laboratory experiments.

The AP Chemistry course builds upon the introductory Honors Chemistry course. Students in AP Chemistry will review some of the basic content from Honors Chemistry from a more sophisticated perspective, but will also study more advanced topics. Because the AP Chemistry course moves quickly, students will need to be familiar with most of the concepts at an introductory level before the course begins. Therefore, a pre-requisite for taking AP Chemistry is the completion of Honors Chemistry.

Labwork will be a regular part of lessons, and students will keep a lab notebook to record their data and analysis. Students can expect a minimum of one hour per week spent collecting lab data.

The AP Chemistry course at B-CC currently uses the Brown, LeMay, and Bursten Chemistry textbook, a commonly used textbook at the university level.

### Course Content

The first part of the course covers the atomic theory, chemical bonding, thermodynamics, chemical reactions, and quantum mechanics. The second part of the course covers advanced applications of these topics, including gases, kinetic theory, electrochemistry, acid/base chemistry, and solution chemistry.

### Structure of the AP Chemistry Exam

Students who complete the AP Chemistry course will be expected to take the AP Chemistry exam. The AP Exam has two main parts, Section 1 and Section 2, that contribute equally to the final score. Section 1 consists of 75 multiple-choice questions covering a broad range of topics. Section 2 consists of six free-response questions: three multipart quantitative questions, one question on writing balanced chemical equations, and two multipart questions that are largely qualitative. 90 minutes are allotted for Section 1 and 95 minutes are allotted for Section 2. Calculators are only permitted for a portion of Section 2.