



**VIRGINIA BEACH CITY PUBLIC SCHOOLS**  
CHARTING THE COURSE

*Department of Teaching & Learning*  
*Parent/Student Course Information*

*Advanced Placement Chemistry*  
*(SC 4440)*  
*One credit, One year*  
*Grades 11-12*

*Counselors are available to assist parents and students with course selections and career planning. Parents may arrange to meet with the counselor by calling the school's guidance department.*

**COURSE DESCRIPTION**

Advanced Placement Chemistry is a college-level course that deals with advanced concepts in chemistry. The course is designed in accord with the requirements of the College Board. Students are expected to take the Advanced Placement Chemistry Examination at the end of the course.

**COURSE GOALS**

- Develop an in-depth understanding of the fundamentals of general chemistry
- Develop reasonable competence in dealing with chemical problems
- Develop the ability to think clearly and to express ideas orally and in writing with clarity and logic

**PREREQUISITE**

Chemistry

**OPTIONS FOR NEXT COURSE**

Advanced Placement Environmental Science (Biology and Chemistry prerequisite)

Advanced Placement Biology (Biology and Chemistry prerequisite)

Physics (Geometry prerequisite)

Advanced Placement Physics 1 (Algebra II/Trigonometry corequisite)

Advanced Placement Physics C: Mechanics (Calculus corequisite)

Earth Science

Biology

Oceanography (Earth Science prerequisite)

Astronomy (Earth Science prerequisite)

**REQUIRED TEXTBOOK**

*Chemistry, AP\* Edition, 9<sup>th</sup> Edition, Cengage (2014)*

**MINIMUM REQUIREMENTS**

- Demonstrate knowledge and understanding of all core objectives through laboratory investigations, projects, oral and/or written tests, quizzes and reports
- Participate in the laboratory activities, prepare written laboratory reports and adhere to all safety procedures
- Read science journals, magazines and books to expand the ideas and topics presented in class

**The Knowledge, Skills and Attitudes that Comprise the Advanced Placement Chemistry Course are summarized as follows from the prescribed curriculum:**

**Big Idea 1: Scale, Proportion, and Quantity**

**Big Idea 2: Structure and Properties**

**Big Idea 3: Transformations**

**Big Idea 4: Energy**

#### **CORE AREAS FOR LABORATORY SKILLS AND EXPERIENCES**

- Inquiry-based investigations are a required component of the Advanced Placement Chemistry course. A minimum of twenty-five percent (25%) of a student's time should be spent in laboratory investigations.
- At least 16 hands-on lab investigations should be conducted to support the learning objectives in the course framework. Additionally, guided inquiry-based labs are required for at least 6 of the 16 lab investigations.

**NOTE:** Students should keep records of their laboratory work in such a fashion that the reports can be readily reviewed. Some institutions want to see a record of the laboratory work done by an advanced placement student before making a decision about granting credit.

Aaron C. Spence, Ed.D., Superintendent  
Virginia Beach City Public Schools  
2512 George Mason Drive, Virginia Beach, VA 23456-0038

Produced by the Department of Teaching and Learning.  
For further information, please call (757) 263-1070.

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Alternative formats of this publication which may include taped, Braille, or large print materials are available upon request for individuals with disabilities. Call or write the Department of Teaching and Learning, Virginia Beach City Public Schools, 2512 George Mason Drive, P.O. Box 6038, Virginia Beach, VA 23456-0038. Telephone 263-1070 (voice); fax 263-1424; 263-1240 (TDD) or email him at [Keith.Goodman@vbschools.com](mailto:Keith.Goodman@vbschools.com).

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