

# CHEMISTRY ASSOCIATE OF SCIENCE DEGREE

- b. Demonstrate skill in standard laboratory techniques commonly acquired in lower division coursework.

Students planning to transfer to a four-year institution and major in chemistry or biochemistry should consult with a counselor regarding the transfer process and lower division requirements because additional courses may be required at some institutions.

To graduate with a specialization in Chemistry, students must complete the following required courses plus the general breadth requirements for the Associate's Degree. The A.S. in Chemistry is designed to prepare students who wish to pursue a Bachelor's Degree from a four-year institution. At the four-year institution, students may choose to specialize in one particular aspect of chemistry, such as Environmental Chemistry, Organic Chemistry, Atmospheric Chemistry, or Physical Chemistry.

Code	Title	Units
<b>Required Courses:</b>		
CHEM 150	General Chemistry I	5
CHEM 151	General Chemistry II	5
CHEM 212	Organic Chemistry I	5
CHEM 213	Organic Chemistry II	5
MATH 250	Single Variable Calculus I	4
MATH 251	Single Variable Calculus II	4
<b>Total Units</b>		<b>28</b>

Code	Title	Units
<b>Recommended Courses:<sup>1</sup></b>		
CHEM 205	Quantitative Chemical Analysis	5
PHYSIC 202	Physics I	4
	or PHYSIC 151 General Physics for the Life Sciences I	
PHYSIC 203	Physics II	4
	or PHYSIC 152 General Physics for the Life Sciences II	

<sup>1</sup> *These courses are typically prerequisites for third year chemistry majors. Students are encouraged to complete the recommended courses to prevent the postponement of continued coursework in this major.*

To earn an SBVC Associate Degree students must complete one of the following general education patterns:

SBVC GE requirements (<https://www.valleycollege.edu/student-services/counseling/graduation-requirements/>)

CSU GE requirements (<https://www.valleycollege.edu/student-services/counseling/csuge/>)

IGETC requirements (<https://www.valleycollege.edu/student-services/counseling/igetc/>)

## Program Learning Outcomes

At the completion of this program, students will be able to:

- a. Demonstrate proficiency on chemistry topics from national American Chemical Society (ACS) exams. Achieve a score that is one-half of one standard deviation below the national average (or higher) on the General Chemistry or Organic Chemistry versions, administered in CHEM 151 and CHEM 213, respectively.