CHEMISTRY, ASSOCIATE IN SCIENCE

The Associate in Science degree with an emphasis in Chemistry is designed to prepare students who wish to pursue a Bachelor's degree in Chemistry at a four-year institution. Students enrolled in this program will use the scientific method to investigate phenomena in the natural world and use concepts, experiments, and/or theory to explain them.

Learning Outcomes

Upon successful completion of the program, students will be able to:

- Describe the particle nature of matter, explain the attractions and/or bonds between chemical units, and predict the physical and chemical properties they possess.
- Describe chemical compounds and their reactions using the fundamental language of chemistry, including the use of proper chemical names, molecular formulas, chemical equations, structural drawings, and reaction mechanisms.
- Predict the likelihood and extent of a chemical reaction by analyzing the kinetic and thermodynamic properties of the system.
- Solve chemistry-specific problems by identifying the essential parts of the problem, formulating a strategy for solving the problem, applying appropriate techniques to arrive at a solution, testing the correctness of the solution, and interpreting the results.
- Successfully execute chemistry experiments using standard laboratory equipment, modern instrumentation, and classical purification techniques.
- Communicate the concepts and results of chemistry experiments through effective writing and/or oral communication using the discipline standards for reporting and citation.
- Follow the proper procedures and regulations for safe handling and use of chemicals.

Associate in Science Degree Major Requirements

Code	Title	Units
Required Core		
Select at least 36 units from the following:		36
CHEM 1A	General Chemistry I	
CHEM 1B	General Chemistry II	
CHEM 12A	Organic Chemistry I	
CHEM 12B	Organic Chemistry II	
MATH 20A	Calculus with Analytic Geometry I	
MATH 20B	Calculus with Analytic Geometry II	
MATH 20C	Calculus of Several Variables	
PHYS 3A	Science and Engineering Physics I	
PHYS 3B	Science and Engineering Physics II	
PHYS 3C	Science and Engineering Physics III	
TOTAL MAJOR UNITS		**36**
Additional Requirements		
Complete Competency Requirements, general education pattern (MPC General Education, CSU General Education, or IGETC), and electives, if needed, for a total of 60 degree-applicable units.		24
Contact an MPC counselor for major preparation at specific institutions.		
Total Units		**60**

Please refer to the graduation requirements section of the Catalog for information about degree and certificate requirements including Reading and Writing, Mathematics, Information Competency, and General Education requirements.