Chemistry, AS
School of Math, Science and Engineering

The Chemistry AS is designed to prepare students for a rigorous four-year Chemistry program. This program focuses on the study of principles of chemistry, problem solving, critical thinking, laboratory skills and technical communication. It is designed primarily for transfer to a Pennsylvania Transfer and Articulation Oversight Committee (TAOC) four-year institution.

Program Learning Outcomes

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

- Safely conduct chemical experiments and analyze and interpret the results.
- Apply fundamental concepts of chemical reactivity.
- Apply the knowledge of chemical substances to predict properties and interactions.
- Demonstrate proficiency in writing formulas and names for inorganic, bioorganic and organic chemical compounds using the IUPAC system of nomenclature.
- Make use of dimensional analysis to solve chemical calculation problems.
- Evaluate technical references critically and apply concepts in peer-reviewed scientific literature.

Sugg. Term	Seq #	Course ID	Course Title	Cr.	Term Offered	Prereq(s)	Options Available
1st Fall	1	PDV 171	Career Pathway Exploration	3	F		
	2	PHY 255	Engineering Physics I	5	F	PHY 110 or HS Physics & Co-Requisite MTH 172	
	3	CHM 155	General Chemistry I	4	F, Sp, Su	CHM 107 or HS Chemistry & MTH 052, 052A, or Placement	
	4	MTH 172	Analytical Geometry & Calculus I	4	F, Sp, Su	MTH 109, 158 or Placement	
1st Spring	5	ENG 161	College Writing	3	F, Sp, Su	ENG 085 or Placement	
	6	MTH 173	Analytical Geometry & Calculus II	4	F, Sp, Su	MTH 172	
	7	PHY 256	Engineering Physics II	5	Sp	PHY 255	
	8	CHM 156	General Chemistry II	4	F, Sp, Su	CHM 155	
2nd Fall	10	Elective	Humanities Elective	3	F, Sp, Su		Page 31 Column II Recommendation: ENG 164
	11	CHM 250	Organic Chemistry I	4	F, Su	CHM 156	
	12	BIO 155 or CPT 160	General Biology I or Introduction to Programming	3-4	F, Sp, Su		
	13	MTH 271	Analytical Geometry & Calculus III	4	F, Su	MTH 173	
	14	PHY 259	Thermodynamics & Fluid Mechanics	3	F	PHY 255	
2nd Spring	15	CHM 251	Organic Chemistry II	4	Sp, Su	CHM 250	
	16	SPC 155	Effective Speech	3	F, Sp, Su		
	17	STM 296	STEM Seminar	1	Sp	9 credits of Natural Science and/or Math with at least one of these courses at the 200-level	
	18	Elective	Social Science Elective	3	F, Sp, Su		Page 31 Column III

Total Program Credits **60-61**