Physics, AS

School of Math, Science and Engineering

The Physics AS is designed to prepare students for a rigorous four-year Physics program. This program focuses on the study of principles of physics, 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 college or university.

Program Learning Outcomes

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

- Demonstrate an understanding of fundamental physics concepts and principles.
- Apply problem solving, critical thinking and mathematics skills to physics problems.
- Work effectively with units and significant digits.
- Carry out physics experiments as well as accurately record and analyze results of such experiments in writing.
- Gain entry-level positions in a wide variety of STEM-related fields.
- Communicate technical details effectively with others.
- Work independently as well as in team environments.

Sugg. Term	Seq #	Course ID	Course Title	Cr.	Term Offered	Prereq/Coreq(Co)	Options Available
1st Fall	1	PDV 171	Career Pathway Exploration	3	F, Sp		
	2	PHY 255	Engineering Physics I	5	F	PHY 110 or HS Physics & Co: MTH 172	
	3	CHM 155	General Chemistry I	4	F, Sp, Su	CHM 107 or HS Chemistry & MTH 052, MTH 052A or Placement	
	4	MTH 172	Analytical Geometry and 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 and Calculus II	4	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	9	Elective	Humanities Elective	3	F, Sp, Su		Page 27 Column II
	10	PHY 259	Thermodynamics and Fluid Mechanics	3	F	PHY 255	
	11	SPC 155	Effective Speech	3	F, Sp, Su		
	12	MTH 271	Analytical Geometry and Calculus III	4	F, Su	MTH 173	
2nd Spring	13	Elective	Social Science Elective	3	F, Sp, Su		Page 27 Column III
	14	PHY 258	Modern Physics	3	Sp	PHY 256	
	15	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	
	16	MTH 272	Differential Equations	3	Sp, Su	MTH 271	
	17	Elective	Social Science Elective	3	F, Sp, Su		Page 27 Column III
	18	Elective	Humanities Elective	3	F, Sp, Su		Page 27 Column II
Total Program Credits				61			PHY