Physics, AS

School of Math, Science and Engineering

Program Description

The Physics AS degree 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.
- Communicate technical details effectively with others.
- Work independently as well as in team environments.

Sugg. Term	Seq #	Course ID	Course Title	Cr.	Prereq/Coreq(Co)	Options Available
1st Fall	1	PDV 171	Career Pathway Exploration	3		
	2	PHY 255	Engineering Physics I	5	PHY 110 or HS Physics; Co: MTH 172	
	3	CHM 150	General Chemistry I Lecture	3	High school chemistry (C or better) or CHM 107, MTH 052 or placement	
	4	CHM 151	General Chemistry I Lab	1	Co: CHM 150	
	5	MTH 172	Analytical Geometry and Calculus I	4	"C" Grade or Better in MTH 109, MTH 167 or MTH 170 or Placement	
1st Spring	6	ENG 161	College Writing	3	ENG 085 or Placement	
	7	MTH 173	Analytical Geometry and Calculus II	4	MTH 172	
	8	PHY 256	Engineering Physics II	5	PHY 255	
	9	CHM 160	General Chemistry II Lecture	3	CHM 150/151	
	10	CHM 161	General Chemistry II Lab	1	Co: CHM 160	
2nd Fall	11	Elective	Humanities Elective	3		Page 28 Column II
	12	PHY 259	Thermodynamics and Fluid Mechanics	3	PHY 255	
	13	SPC 155	Effective Speech	3		
	14	MTH 271	Analytical Geometry and Calculus III	4	MTH 173	
2nd Spring	15	Elective	Social Science Elective	3		Page 28 Column III
	16	PHY 258	Modern Physics	3	PHY 256	
	17	STM 296	STEM Seminar	1	9 credits of Natural Science and/or Math with at least one of these courses at the 200-level	
	18	MTH 276	Ordinary and Partial Differential Equations	4	MTH 173; Co: MTH 271	
	19	Elective	Social Science Elective	3		Page 28 Column III
	20	Elective	Humanities Elective	3		Page 28 Column II
Minimum Program Credits				62		PHY