

# Liberal Arts and Science: Physics Option

# PHY.AS

CODE	COURSE	CREDITS	CODE	COURSE	CREDITS
<b>First Year/First Semester</b>			<b>Second Year/First Semester</b>		
ENG-101	English Composition I	3	PHY-201	Physics III	4
HIS-101	World Civilization I	3	MTH-210	Calculus III	4
PHY-101	Physics I <sup>1</sup> or		LFO-101	Introduction to Photonics & Photonics Safety	4
CSC-101	Computer Literacy	3/4	.....	Social Science General Education Elective	3
MTH-140	Calculus I	4	HPE....	Health & Exercise Science Elective	1
.....	Social Sciences General Education Elective	3			<b>16</b>
		<b>16/17</b>	<b>Second Semester</b>		
<b>Second Semester</b>			PHY-202	Physics IV	4
ENG-102	English Composition II	3	MTH-220	Differential Equations	4
PHY-102	Physics II <sup>1</sup> or		CHM-112	Chemistry II - Science or	
CIS-206	Advanced Computer Concepts/Applications	3/4	BIO-112	Biology II - Science	4
MTH-150	Calculus II	4	.....	Humanities General Education Elective	3
CHM-111	Chemistry I - Science or		HPE....	Health & Exercise Science Elective	1
BIO-111	Biology I - Science	4			<b>16</b>
		<b>14/15</b>	<b>Total Minimum Credits</b>		
					<b>62</b>

<sup>1</sup> A student who has completed 2 years of high school physics should select an alternate course.

**PROGRAM DESCRIPTION**

This program is designed for students with a strong interest either in physics, engineering, or photonics. The credits in this program are transferable to four-year colleges for majors in physics and any branch of engineering.

**PROGRAM GOALS**

- To provide students with a foundation in science with a concentration of course work appropriate for a physics major.
- To prepare students to use theoretical principles and experimental equipment and to apply them to solve specific problems in physics and related areas.
- To instill in the students a commitment to lifelong learning which fosters in them a desire to transfer credits to a baccalaureate program in physics, astronomy or any branch of engineering.
- To provide students with a General Education foundation.

**SPECIAL COURSE REQUIREMENT**

Mathematics at the level of Intermediate Algebra (MTH-109) is a prerequisite for this program.

**PROGRAM STUDENT LEARNING OUTCOMES**

At the end of the program, the graduate will be able to:

1. Explain the fundamental concepts of physics.
2. Design and conduct experiments demonstrating physics principles.
3. Apply mathematics to solve physics application problems.

**POST-BACCALAUREATE EMPLOYMENT OPPORTUNITIES**

- Advanced physics
- Astronomy
- Biophysics
- Biotechnology
- Chemical engineering
- Electrical, optical engineering
- Material science
- Lasers
- Fiber optics
- Education

**TRANSFER OPPORTUNITIES:**

Students in this program transfer to many institutions including:  
 Drexel University  
 Rowan University  
 Rutgers University  
 Temple University

**CONTACT PERSON**

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