

Physics, B.A.

Learn more about the Bachelor of Arts in Physics (<https://www.temple.edu/academics/degree-programs/physics-major-st-phys-bs>).

The Bachelor of Arts (B.A.) program is designed for those who are planning for a non-research career in a field which nevertheless has an important science component. Examples include patent law, environmental law enforcement, medicine or sales or management in a high-technology industry.

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Bachelor of Arts

Summary of Requirements for the Degree

- University Requirements (123 total s.h.)
 - MATH 0701 (4 s.h.) and/or ENG 0701 (4 s.h.), if required by placement testing.
 - All Temple students must take a minimum of two writing-intensive courses at Temple as part of their major. Following is a list of courses that can be used to satisfy the writing-intensive requirement: PHYS 2796 and PHYS 4796.
 - Students must complete the General Education (GenEd) requirements.
 - See the General Education (<http://bulletin.temple.edu/undergraduate/general-education>) section of the *Undergraduate Bulletin* for the GenEd curriculum.
 - Students who complete CST majors typically receive a waiver for 2 Science & Technology (GS) and 1 Quantitative Literacy (GQ) GenEd courses.
 - Students must satisfy general Temple University residency requirements (<http://bulletin.temple.edu/undergraduate/academic-policies/academic-residency-requirements>).
- College Requirements
 - 90 credits within the College of Science & Technology (CST) or the College of Liberal Arts (CLA).
 - 45 Upper Level (2000+) credits within the College of Science & Technology (CST) or the College of Liberal Arts (CLA).
 - Two (2) Upper Level (2000+) Liberal Art courses.
 - Second (2nd) Level of a Foreign Language (1002).
 - First Year Seminar Requirement: All students in the College of Science & Technology (CST) are required to take a 1 credit first year seminar course, SCTC 1001 CST First Year Seminar. Other courses that fulfill this requirement may be found on the CST College Requirements (<http://bulletin.temple.edu/undergraduate/science-technology/#collegerequirementstext>) page. Only one course in this category may count towards graduation.
- Major Requirements for Bachelor of Arts (56 s.h.)

At least 7 courses required for the major must be completed at Temple. At least 5 Physics courses must be completed at Temple.

Code	Title	Credit Hours
Mathematics		
MATH 1041 or MATH 1941	Calculus I Honors Calculus I	4
MATH 1042 or MATH 1942	Calculus II Honors Calculus II	4
MATH 2043 or MATH 2943	Calculus III Honors Calculus III	4
Sequenced Science Courses ¹		
Select one of the following sequences:		8

BIOL 1011 & BIOL 1012	General Biology I and General Biology II ²	
BIOL 1111 & BIOL 2112	Introduction to Organismal Biology and Introduction to Cellular and Molecular Biology	
BIOL 1911 & BIOL 2912	Honors Introduction to Organismal Biology and Honors Introduction to Cellular and Molecular Biology	
CHEM 1031 & CHEM 1033 & CHEM 1032 & CHEM 1034	General Chemistry I and General Chemistry Laboratory I and General Chemistry II and General Chemistry Laboratory II	
EES 2001	Physical Geology (and a 2000+ Elective)	
Physics Courses		
PHYS 1008	Physics Seminar I	1
Select one of the following:		4
PHYS 1061	Elementary Classical Physics I	
PHYS 1961	Honors Elementary Classical Physics I (F)	
PHYS 2021	General Physics I	
PHYS 2921	Honors General Physics I (F)	
Select one of the following:		4
PHYS 1062	Elementary Classical Physics II	
PHYS 1962	Honors Elementary Classical Physics II (S)	
PHYS 2022	General Physics II	
PHYS 2922	Honors General Physics II (S)	
PHYS 2101	Classical Mechanics (S)	3
PHYS 2502	Mathematical Physics (S)	4
PHYS 2796	Introduction to Modern Physics (S)	4
PHYS 3301	Electricity and Magnetism (F)	4
PHYS 4796	Experimental Physics (S)	3
Physics Electives		
Select three of the following:		9
PHYS 1004	Introduction to Astronomy (F)	
PHYS 2511 & PHYS 3511	Scientific Computing I and Scientific Computing II	
PHYS 3101	Analytical Mechanics (F)	
PHYS 3302	Classical Electromagnetism (S)	
PHYS 3701	Introduction to Quantum Mechanics I (S)	
PHYS 4101	Thermal Physics (F)	
PHYS 4301	Electronics (S - odd years)	
PHYS 4302	Optics (F)	
PHYS 4701	Introduction to Solid State Physics (S - even years)	
PHYS 4702	Introduction to Quantum Mechanics II (F)	
Total Credit Hours		56

Code	Title	Credit Hours
(F) - Fall only course		
(S) - Spring only course		

Note: PHYS 3091 is not available for major credit.

- ¹ Students are required to take a two-semester sequence of laboratory science electives not within physics. The science courses can be chosen from Biology, Chemistry, or Earth & Environmental Science.
- ² BIOL 1011 is a Fall only course; BIOL 1012 is a Spring only course.

Calculation of Major GPA

Courses listed under the major requirements for the degree will be included in the calculation of the major GPA. Courses that could not apply toward the major as an elective or required course would not be counted in the calculation of the major GPA. This would include MATH 1022, for example.

Distinction in Major

A student who wishes to graduate with distinction in the major must complete all courses required for the physics major with a GPA of 3.5 or better, and carry out an independent study or undergraduate thesis project. Consult the undergraduate physics advisor for more details.

Suggested Academic Plan

Bachelor of Arts in Physics

Requirements for New Students starting in the 2019-2020 Academic Year

Year 1		Credit Hours
Fall		
MATH 1041 or 1941	Calculus I	4
PHYS 1008	Physics Seminar I	1
Select one of the following:		4
PHYS 1061	Elementary Classical Physics I	
PHYS 1961	Honors Elementary Classical Physics I (F)	
PHYS 2021	General Physics I	
PHYS 2921	Honors General Physics I (F)	
SCTC 1001	CST First Year Seminar	1
General Education/Elective Credits		5
Term Credit Hours		15
Spring		
MATH 1042 or 1942	Calculus II	4
Select one of the following:		4
PHYS 1062	Elementary Classical Physics II	
PHYS 1962	Honors Elementary Classical Physics II (S)	
PHYS 2022	General Physics II	
PHYS 2922	Honors General Physics II (S)	
General Education/Elective Credits		7
Term Credit Hours		15
Year 2		
Fall		
MATH 2043 or 2943	Calculus III	4
General Education/Elective Credits		12
Term Credit Hours		16
Spring		
PHYS 2502	Mathematical Physics (S)	4
PHYS 2796	Introduction to Modern Physics [WI] (S)	4
General Education/Elective Credits		7
Term Credit Hours		15
Year 3		
Fall		
PHYS 3301	Electricity and Magnetism (F)	4
Sequenced Science Part 1 ¹		4
General Education/Elective Credits		7
Term Credit Hours		15
Spring		
PHYS 2101	Classical Mechanics (S)	3
Sequenced Science Part 2 ¹		4

General Education/Elective Credits		9
	Term Credit Hours	16
Year 4		
Fall		
Physics Elective ²		3
Physics Elective ²		3
General Education/Elective Credits		10
	Term Credit Hours	16
Spring		
PHYS 4796	Experimental Physics [WI] (S)	3
Physics Elective ²		3
General Education/Elective Credits		9
	Term Credit Hours	15
	Total Credit Hours:	123

Code	Title	Credit Hours
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(F) - Fall only course

(S) - Spring only course

¹ Select from the Sequenced Science Courses list under Requirements.

² Select from the Physics Electives list under Requirements.