

# Physics B.A./B.S. with Emphasis in Pre-Medical

Physics B.A./B.S. with Emphasis in Pre-Medical is a program designed for students interested in pursuing a medical degree or advanced degree in medical or radiation physics after graduation. The degree program consists of a major in Physics and a Minor in Biology. Students who in addition complete CHEM 340 will receive a Minor in Chemistry.

## Core Curriculum Courses

See the Core Curriculum Requirements (<https://coursecatalog.tamuc.edu/undergrad/core-curriculum-requirements/>) 42

## Required courses in the major

PHYS 101	Physics and Astronomy Seminar	1
PHYS 2425	University Physics I	4
PHYS 2426	University Physics II	4
PHYS 317	Mathematical Methods for Physics and Engineering	3
PHYS 321	Modern Physics	3
PHYS 333	Wave Motion, Acoustics, and Optics	4
PHYS 335	Advanced Physics Laboratory	3

Choose two from the following: 6

PHYS 411	Classical Mechanics	
PHYS 412	Electricity and Magnetism	
PHYS 414	Thermodynamics and Kinetic Theory	
PHYS 420	Quantum Mechanics	

## Emphasis courses and Biology Minor

PHYS 119	Introduction to Python Computer Programming for the Physical Sciences	1
PHYS 401	Current Topics in Physics and Astronomy (1 sh, must be repeated for total of 2 sh)	2

6 SCH additional PHYS 400-level courses 6

PHYS/MATH/CHEM/BSC Advanced 3

BSC 1406	Introductory Biology I	4
BSC 1407	Introductory Biology II	4
BSC 303	Cell Biology	4
BSC 304	Genetics	4
BSC 305	General Physiology	4
BSC 306	Applied Microbiology	4

## Support courses

CHEM 1111	General and Quantitative Chemistry Laboratory I	1
CHEM 1112	General and Quantitative Chemistry Laboratory II	1
CHEM 1311	General and Quantitative Chemistry I *	
CHEM 1312	General and Quantitative Chemistry II *	
CHEM 2123	Organic Chemistry Laboratory I	1
CHEM 2125	Organic Chemistry Laboratory II	1
CHEM 2323	Organic Chemistry I	3
CHEM 2325	Organic Chemistry II	3
MATH 2413	Calculus I *	
MATH 2414	Calculus II *	
MATH 2415	Calculus III	4

**Total Hours** 120

\* This course should be taken to fulfill Core Curriculum Requirements.

**First Year**

**Fall**

**Hours**

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**0**

**Total Hours: 0**