

# BACHELOR OF SCIENCE, MAJOR IN PHYSICS

Code	Title	Hours
<b>Bachelor of Science, Major in Physics</b>		
<b>Core Curriculum</b> (catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum)		
Component Area I (Communication)		6
Component Area II (Mathematics)		3
Component Area III (Life and Physical Science)		8
Component Area IV (Language, Philosophy, and Culture)		3
Component Area V (Creative Arts)		3
Component Area VI (U.S. History)		6
Component Area VII (Political Science/Government)		6
Component Area VIII (Social and Behavioral Sciences)		3
Component Area IX (Component Area Option)		4
<b>Degree Specific Requirements</b>		
BIOL 1411 or GEOL 1403 or PHYS 1404	General Botany Physical Geology Solar System Astronomy	4
BIOL 1413 or GEOL 1404 or PHYS 1403	General Zoology Historical Geology Stars & Galaxies	4
CHEM 1411	General Chemistry I <sup>1</sup>	4
CHEM 1412	General Chemistry II <sup>1</sup>	4
COSC 1436	Programming Fundamentals I	4
Advanced General elective		7
MATH (Advanced) or Science (Advanced)		6
<b>Major Core</b>		
PHYS 1401	Physics Boot Camp	4
PHYS 1411	Introduction To Physics I	4
PHYS 1422	Introduction To Physics II	4
PHYS 3391 & PHYS 3111	Modern Physics I and Modern Physics Laboratory I	4
PHYS 3370 & PHYS 4110	Intro To Theoretical Physics and Adv Undergrad Laboratory I	4
PHYS 4366	Intro Quantum Mechanics	3
PHYS 4368	Electricity And Magnetism	3
PHYS 4370	Classical Mechanics	3
PHYS 4371	Thermodynamcs & Statistcl Mech	3
PHYS 4395	Undergraduate Research	3
<b>Major</b>		
Advanced PHYS elective		3
General Elective		1
<b>Minor (if required)</b>		
MATH 1420	Calculus I <sup>1</sup>	4
MATH 1430	Calculus II	4
MATH 2440	Calculus III	4
MATH 3376	Differential Equations	3
MATH 3377	Intro to Linear Alg & Matrics	3
Total Hours		120

<sup>1</sup> CHEM 1411, CHEM 1412 satisfies the Core Curriculum requirement for Component Area III (Life and Physical Science). MATH 1420 satisfies the Core Curriculum requirement for Component Area II (Mathematics), one semester credit hour of Component Area IX (Component Area Option), and the Degree Specific requirement.

A student may need preparatory work in mathematics or might be eligible for advanced placement, either of which necessitates adjustment of the schedule. Such a student should consult a member of the physics or mathematics faculty concerning his/her schedule.

**First Year**

<b>Fall</b>	<b>Hours Spring</b>	<b>Hours</b>
CHEM 1411	4 CHEM 1412 <sup>3</sup>	4
ENGL 1301 <sup>1</sup>	3 ENGL 1302 <sup>1</sup>	3
General Elective	1 MATH 1430	4
MATH 1420 <sup>2</sup>	4 PHYS 1411	4
PHYS 1401	4	
	16	15

**Second Year**

<b>Fall</b>	<b>Hours Spring</b>	<b>Hours</b>
Component Area IV ( <a href="http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareav">catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareav</a> )	3 COSC 1436	4
HIST 1301	3 HIST 1302 <sup>4</sup>	3
MATH 2440	4 PHYS 3370 & PHYS 4110	4
PHYS 1422	4 POLS 2306 <sup>5</sup>	3
POLS 2305	3	
	17	14

**Third Year**

<b>Fall</b>	<b>Hours Spring</b>	<b>Hours</b>
Component Area VIII ( <a href="http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareaviii">catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareaviii</a> )	3 Component Area V ( <a href="http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareav">catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareav</a> )	3
Component Area IX ( <a href="http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareaix">catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareaix</a> )	3 BIOL 1413, GEOL 1404, or PHYS 1403	4
BIOL 1411, GEOL 1403, or PHYS 1404	4 MATH 3377	3
MATH 3376	3 PHYS 4370	3
PHYS 3111	1	
PHYS 3391	3	
	17	13

**Fourth Year**

<b>Fall</b>	<b>Hours Spring</b>	<b>Hours</b>
Advanced General Elective	3 Advanced General Elective	4
Math or Science (Advanced)	3 Math or Science (Advanced)	3
PHYS 4368	3 PHYS 4366	3
PHYS 4371	3 PHYS Advanced Elective	3
PHYS 4395	3	
	15	13

Total Hours: 120

<sup>1</sup> Satisfies Core Curriculum requirement for Component Area I (Communications).

<sup>2</sup> Satisfies Core Curriculum requirement for Component Area II (Mathematics) and one semester credit hour of the Core Curriculum requirement for Component Area IX (Component Area Option).

<sup>3</sup> Satisfies Core Curriculum requirement for Component Area III (Life and Physical Science).

- 4 Satisfies Core Curriculum requirement for Component Area VI (U.S. History).
- 5 Satisfies Core Curriculum requirement for Component Area VII (Political Science).

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