

## Minimum required: 120 semester credit hours

### General Requirements

1. The general education core curriculum courses are listed in the degree plan below along with the statewide component code number. See the General Education Core Curriculum (<http://mycatalog.txstate.edu/undergraduate/general-education-core-curriculum/>) section of this catalog for the Texas State requirements and options in the core curriculum, including Honors courses.
2. Students must complete a minimum of 36 advanced hours (3000 or 4000 level courses).
3. Students entering Texas State with fewer than 16 credit hours completed after high school graduation will be required to take US 1100. All others will be exempt from taking this course. Students may be required to earn an additional elective to reach the 120 minimum total credit hour requirement for the awarding of a degree.
4. Students must select a minor from the approved list of Undergraduate Minors (<http://www.mycatalog.txstate.edu/undergraduate/minors/>). The recommended minor is Applied Mathematics. The minor should be chosen in consultation with the academic advisor.
5. Nine semester credit hours must be writing intensive (WI).
6. If two years of the same language are taken in high school, then no additional language hours will be required for the degree. In the absence of such high school language, two semesters of the same modern language must be taken at the college level.

MATH 2393 (TCCN MATH 2315)	3	PHYS 3311	3
CHEM 1335 (Life and Physical Sciences Component Code 030 [TCCN CHEM 1309]) <sup>1</sup>	3	MATH 3323	3
CHEM 1135 (TCCN CHEM 1109)	1	POSI 2310 (Government/Political Science Component Code 070 [TCCN GOVT 2306])	3
Language, Philosophy, and Culture Component Code 040	3	Electives/Minor	3
<b>16</b>		<b>16</b>	

First Semester Hours		Second Semester Hours	
PHYS 3312	3	PHYS 4305	3
PHYS Upper Division Lab <sup>2</sup>	4	POSI 2320 (Government/Political Science Component Code 070 [TCCN GOVT 2305])	3
American History Component Code 060	3	PHYS Upper Division Lab <sup>2</sup>	4
Electives/Minor	3	Electives/Minor	6
Creative Arts Component Code 050 [HUMA 1315]	3		
<b>16</b>		<b>16</b>	

First Semester Hours		Second Semester Hours	
PHYS 4310	3	PHYS Electives	7
PHYS 4312	3	Electives/Minor	7
PHYS Electives	3		
Electives/Minor	4		
<b>13</b>		<b>14</b>	

**Total Hours: 120**

<sup>1</sup> BIO 1330/BIO 1130 or BIO 1331/BIO 1131 may be taken instead of CHEM 1335/CHEM 1135.  
<sup>2</sup> Upper Division Labs: PHYS 3411, PHYS 3416, PHYS 3417, PHYS 3418

### PHYS Electives

Code	Title	Hours
PHYS 3210	Physics Cognition and Pedagogy	2
PHYS 3313	Astrophysics	3
PHYS 3318	Galactic and Extragalactic Astrophysics	3
PHYS 3411	Advanced Physics Laboratory	4
PHYS 3416	Applied Electronics	4
PHYS 3417	Optics	4
PHYS 3418	Methods in Observational Astrophysics	4
PHYS 4121	Undergraduate Research	1
PHYS 4221	Undergraduate Research	2
PHYS 4311	Condensed Matter Physics	3
PHYS 4320	Selected Study in Physics	3
PHYS 4321	Undergraduate Research (see dept.)	3
PHYS 4330	Relativity	3

### Course Requirements

		Freshman	
	First Semester Hours	Second Semester Hours	
US 1100		1 PHYS 2335 & PHYS 2135	4
PHYS 2325 & PHYS 2125 (Life and Physical Sciences Component Code 030 [TCCN PHYS 2325 and 2125])	4	MATH 2472 (Component Area Option Code 090/092 [TCCN MATH 2414])	4
MATH 2471 (Mathematics Component Code 020 [TCCN MATH 2413])	4	American History Component Code 060	3
ENG 1310 (Communication Component Code 010 [TCCN ENGL 1301])	3	Communication Component Code 010	3
Social and Behavioral Sciences Component Code 080	3		
<b>15</b>		<b>14</b>	

		Sophomore	
	First Semester Hours	Second Semester Hours	
PHYS 2326 & PHYS 2126 (Component Area Option Code 090/093 [TCCN PHYS 2326 and 2126])	4	PHYS 2150	1
PHYS 2230	2	PHYS 3320	3

2 Bachelor of Science (B.S.) Major in Physics

PHYS 4345	Biophysics	3
PHYS 4350F	Astronomical Spectroscopy	3
PHYS 4350G	Nuclear and Particle Physics	3
PHYS 4360	Physics Cognition and Pedagogy II	3
ENGR 3311	Mechanics of Materials	3
ENGR 3380	Fluid Mechanics	3
MATH 4306	Fourier Series and Boundary Value Problems	3

Or courses approved by the department advisor