

**Note: No Major course with a lab component may be selected as credit/no credit.<sup>1</sup>**

**Note: Students intending to double major must consult the physics department chair, preferably prior to sophomore year.**

MAJOR COURSES		
PHYS 141	General Physics I	4
PHYS 142	General Physics II (B1 & B3) <sup>1,2</sup>	4
PHYS 143	General Physics III <sup>1</sup>	4
PHYS 202	Physics on the Computer	4
PHYS 206	Electronics and Instrumentation <sup>1</sup>	4
PHYS 211	Modern Physics I	4
PHYS 212	Modern Physics II	4
PHYS 301	Thermal Physics I	4
PHYS 305	Classical Mechanics I (Upper-Division B) <sup>2</sup>	4
PHYS 320	Methods of Theoretical Physics I	4
PHYS 321	Methods of Theoretical Physics II	4
PHYS 340	Quantum Physics Laboratory I <sup>1</sup>	2
PHYS 341	Quantum Physics Laboratory II <sup>1</sup>	2
PHYS 405	Quantum Mechanics I	4
PHYS 408	Electromagnetic Fields and Waves I	4
PHYS 461	Senior Project I	2
PHYS 462	Senior Project II	2
CHEM 124	Gen Chem for Phys Sci & Engr I	4
CHEM 125	Gen Chem for Phys Sci & Engr II	4
MATH 141	Calculus I (B4) <sup>2</sup>	4
MATH 142	Calculus II (GE Electives) <sup>2</sup>	4
MATH 143	Calculus III	4
MATH 206	Linear Algebra I	4
MATH 241	Calculus IV	4
MATH 242	Differential Equations I	4
Technical Electives (20)		
<b>Physics Electives</b> <sup>1, 3, 4, 5, 6</sup> (excess will go to Breadth Elect)		11
Select 11 units from the following:		
Any 300-400 level PHYS course or ASTR 444;		
Of which, two courses must be <b>lab electives</b> selected from:		
ASTR 444 Observational Astronomy		
PHYS 323 Optics		
PHYS 342 Quantum Physics Laboratory III		
PHYS 357 Adv. Instrumentation in Experimental Physics		
PHYS 422 Polymer Electronics Laboratory		
PHYS 423 Advanced Optics		
PHYS 426 Solid State Physics Laboratory		
PHYS 428 Nonlinear Dynamical Systems		
<b>Breadth Electives</b> <sup>1, 3, 4, 5</sup>		9
Select 9 units from the following:		
Any 300-400 level PHYS, ASTR, GEOL, MATH, STAT, DATA or CSC, or PHYS 100, 220; CSC 101, 231, 234, 235 (excludes ASTR 324).		
<b>Total Major Units</b>		<b>112</b>

GENERAL EDUCATION		
Area A English Lang. Comm. & Critical Thinking		
A1	Oral Communication	4
A2	Written Communication	4
A3	Critical Thinking	4
Area B Scientific Inquiry & Quantitative Reasoning		
B1	Physical Science (4 units in Major) <sup>2</sup>	0
B2	Life Science	4
B3	One lab taken with either a B1 or B2 course	
B4	Math/Quant. Reasoning (4 units in Major) <sup>2</sup>	0
	Upper-Division B (4 units in Major) <sup>2</sup>	0
Area C Arts and Humanities		
Select lower-division courses from 3 different prefixes.		
C1	Arts	4
C2	Humanities	4
	Lower-Division C Elective - Select from either C1 or C2	4
	Upper-Division C	4
Area D Social Sciences		
Select courses from at least two different prefixes		
D1	American Institutions (Title 5/Section 40404)	4
D2	Lower-Division D	4
	Upper-Division D	4
Area E Lifelong Learning and Self-Development		
	Lower-Division E	4
Area F Ethnic Studies		
	Lower-Division F	4
GE Electives in Areas C, and D		
Select lower- or upper-division courses from 2 different areas.		
	GE Electives (4 units of Area B in Major) <sup>2</sup>	0
	GE Electives (Area C or D)	4
<b>Total GE Units</b>		<b>56</b>
<b>FREE ELECTIVES</b> <sup>7</sup>		<b>12</b>
At least 9 units must be upper-division (300-400 level).		
<b>TOTAL DEGREE UNITS</b>		<b>180</b>

### FOOTNOTES

<sup>1</sup> Major courses with lab component may not be taken as CR/NC grading: PHYS 142, 143, 206, 323, 340, 341, 342, 357, 422, 423, 426, 428; ASTR 444.

<sup>2</sup> Required in Major or Support; also satisfies General Education (GE) requirement.

<sup>3</sup> For students anticipating an industrial career, PHYS 323, 357, 423, 425, 426, and 427 are suggested.

<sup>4</sup> For students anticipating graduate work in physics, PHYS 306, 401, 406, 409, and MATH 410 are suggested. PHYS 357 is suggested for students who anticipate becoming experimental physicists.

<sup>5</sup> Total combined elective credit in PHYS 400, 404; ASTR 400, 404; GEOL 400, and 404 limited to 8 units, with a maximum of 2 units per quarter.

<sup>6</sup> Excess units will count towards Breadth Elective units.

<sup>7</sup> At least 9 units must be upper-division (300-400 level).