

# B.S. Physics (2-year Roadmap)

Even Year Start

YEAR 1	PHYS 325 - Introduction To Mathematical Physics	3	PHYS 450 - Statistical Physics	2
	PHYS 320 - Analytical Mechanics	3	PHYS 366 - Intermediate Experimental Physics - GWAR	3
	PHYS 314 - Introduction to Physics III	4	PHYS 430 - Electricity and Magnetism	3
	ASTR 100 OR PHYS 100 OR alternative course approved by department advisor	3	University Electives	7
	University Electives	2		
	<b>TOTAL UNITS</b>	<b>15</b>	<b>TOTAL UNITS</b>	<b>15</b>
YEAR 2	PHYS 381 - Computer Applications for Scientists	2	PHYS 340 - Light and Optics (met-in-major Upper Div GE Area 5)	3
	PHYS 491 - Capstone	1	PHYS 460 - Quantum Physics	3
	Upper Div GE Area 3 and 4	6	Physics Elective	3
	American Institutions	6	University Electives	6
	<b>TOTAL UNITS</b>	<b>15</b>	<b>TOTAL UNITS</b>	<b>15</b>

## Plan Assumptions

This two-year plan assumes students have completed:

- Math sequence of Calculus I-III, equivalent to SSU courses:
  - MATH 161 - Differential and Integral Calculus I GE Area B4 Units: 4
  - MATH 211 - Differential and Integral Calculus II Units: 4
  - MATH 261 - Multivariable Calculus Units: 4
  - MATH 241 - Linear Algebra with Applications in Differential Equations Units: 4
- Physics sequence of Calculus-based Physics, equivalent to SSU courses:
  - PHYS 114 - Introduction to Physics I GE Area B1 Units: 4
  - PHYS 116 - Introductory Laboratory Experience Units: 1
  - PHYS 214 - Introduction to Physics II Units: 4
  - PHYS 216 - Introductory Laboratory Units: 1
- Lower Division GE Pattern meeting\*:
  - Lower Division GE Area 1A: English Composition Units: 3
  - Lower Division GE Area 1B: Critical Thinking Units: 3

- o Lower Division GE Area 1C: Oral Communication Units: 3
- o Lower Division GE Area 2: Mathematical Concepts and Quantitative Reasoning (from MATH 161 equivalent, listed above)
- o Lower Division GE Area 3A: Arts Units: 3
- o Lower Division GE Area 3B: Humanities Units: 3
- o Lower Division GE Area 4: Social and Behavioral Sciences Units: 6
- o Lower Division GE Area 5A: Physical Sciences (from PHYS 114 equivalent, listed above)
- o Lower Division GE Area 5B: Life Sciences Units: 3
- o Lower Division GE Area 5C: Laboratory (from PHYS 116 Equivalent, listed above)
- o Lower Division GE Area 6: Ethnic Studies Units: 3

\* Any of these that are unmet may be completed as the University Electives identified in the two-year plan above