

B.A. in Physics

Program Description

The Bachelor of Arts in Physics degree program at Cal U creates a strong foundation in physics; stimulates intellectual growth; promotes critical thinking and leadership skills; and builds character in students. A foundational natural science degree, this program is designed to assist students in developing a deep understanding of concepts and problem-solving skills, preparing them for a broad range of career opportunities. The Physics program encourages and leads students in outreach service and aims to produce graduates who can:

- Acquire factual and theoretical knowledge of physics.
- Develop laboratory knowledge and skills while sustaining a commitment to safety.
- Employ technology to obtain and utilize physics principles and current discoveries.
- Communicate effectively.

Delivery Mode

Traditional (on campus)

Curriculum

Course	Credits
General Education Courses	42
<i>Building a Sense of Community</i> UNI 100 First-Year Seminar	1
<i>Composition</i> ENG 101 English Composition I	3
<i>Public Speaking</i> Any Public Speaking Course	3
<i>Mathematics and Quantitative Literacy</i> MAT 281 Calculus I	3
<i>Health and Wellness</i> Any Health and Wellness Course	3
<i>Technological Literacy</i> CSC 120 Problem Solving and Programming Constructs	3
<i>Humanities</i> Any Humanities Course	3
<i>Fine Arts</i> Any Fine Arts Course	3
<i>Natural Sciences</i> CHE 101 General Chemistry I	4
<i>Social Sciences</i> Any Social Sciences Course	3

Department of Mathematics and Physical Sciences

Course	Credits
<i>General Education Options</i> <ul style="list-style-type: none"> • Any Ethics and Multicultural Awareness Emphasis Course • CHE 102 General Chemistry II (4 credits) • Additional General Education Courses (two courses) 	13
Required Major Courses	39
MAT 282 Calculus II	3
MAT 381 Calculus III	3
MAT 382 Calculus IV	3
MAT 406 Differential Equations	3
PHY 101 College Physics I	4
PHY 202 College Physics II	4
PHY 203 College Physics III	4
PHY 321 Intermediate Mechanics	4
PHY 301 Intermediate Elect. & Mag.	4
PHY 331 Modern Physics I	3
PHY 495 Physics Seminar	1
Adviser-approved 300- or 400-level PHY Elective	3
Free Electives	39
Total	120

Additional requirements, not counted toward the General Education requirements, include:

- **Special Experience Course (1 course required):** Any Special Experience Course
- **Writing-Intensive Component Courses (2 courses required):** PHY 301 Intermediate Electricity and Magnetism AND PHY 495 Physics Seminar
- **Laboratory Course (1 course required):** PHY 101 College Physics I

Program Notes: 42 total credits must be at the 300 level or above. At least 18 credits of "General Education" and "Free Electives" must be at the 300 level or above to meet this requirement.

Program Webpage

<https://www.calu.edu/academics/undergraduate/bachelors/physics/index.aspx>