

# PHYSICS ASSOCIATE IN SCIENCE DEGREE FOR UC TRANSFER

**Division: Science/Engineering/Mathematics**

**PROGRAM CODE:** 1S43079

Financial Aide Eligible

The **Physics Associate in Science Degree for UC Transfer**, also known as the Physics AS-UCT, prepares students for transfer to UC campuses that offer bachelor's degrees in physics. This program aligns with the UC Transfer Pathway (UCTP). The Physics AS-UCT introduces students to general principles of mechanics, electricity, magnetism, thermodynamics, optics, and modern physics with related laboratory work and prepares students for upper division coursework in the discipline of physics through the coursework in physics and mathematics. This degree in physics provides valuable quantitative and problem-solving skills that are in demand for hiring as lab technicians in fields such as manufacturing, different fields of engineering, and education. For people who obtain a terminal bachelor's degree in physics, about half work in industry, in fields such as aerospace, military, software, and electronics. Most of the other half work either as high school teachers or as lab technicians at universities or government-funded laboratories. PhD's in physics are qualified for teaching at the university level and for scientific research, as well as for higher-level jobs in the same areas as those with bachelor's degrees. Students completing this degree are guaranteed admission to the UC system, but not necessarily to a particular UC campus or major of their choice. In addition to completing the coursework and IGETC courses for this degree, students must achieve a cumulative minimum grade point average of 3.5 in the major. This degree requires 39 units in the major, 16-20 general education (IGETC) coursework, in addition to other graduation requirements. This degree requires a total of 55-59 units.

| Code                              | Title                                     | Units |
|-----------------------------------|---|-------|
| <b>Required units: (39 units)</b> |   |       |
| CHEM 111AC                        | General Chemistry I                       | 5     |
| CHEM 111BC                        | General Chemistry II                      | 5     |
| PHYS 221 C                        | General Physics I                         | 4     |
| PHYS 222 C                        | General Physics II                        | 4     |
| PHYS 223 C                        | General Physics III                       | 4     |
| MATH 150AC                        | Calculus I                                | 4     |
| MATH 150BC                        | Calculus II                               | 4     |
| MATH 250AC                        | Multivariable Calculus                    | 4     |
| MATH 250BC                        | Linear Algebra and Differential Equations | 5     |

## General Education Requirements:

*In addition to the required coursework, 16-20 units of Intersegmental General Education Transfer Curriculum (IGETC) courses must be completed.*

Area 1A Freshman Composition (3 units)

Area 1B Critical Thinking (3 units)

Area 3 Arts and Humanities (3 units)

Area 4 Social and Behavioral Science (3 units)

Area 5B Biological Science (4 units)

Area 6 Language Other than English (0-4 units)

**Total Units**

**39**

## Program Student Learning Outcomes:

**OUTCOME 1:** Acquire the knowledge and skills, including the principles and applications of mechanics, electricity and magnetism, thermodynamics, optics, and modern physics, experimental techniques and safety protocols in laboratory, necessary for transfer to a four-year institution.

[https://www.curricunet.com/Cypress/reports/program\\_report.cfm?programs\\_id=1513](https://www.curricunet.com/Cypress/reports/program_report.cfm?programs_id=1513)