

# PHYSICS, ASSOCIATE IN SCIENCE FOR UC TRANSFER

The Associate in Science in Physics for UC Transfer degree prepares students to pursue a Bachelor's degree in Physics at a University of California institution. This major provides students with a full two years of physics education as well as a strong foundation in math and chemistry. In addition, completion of the AS in Physics for UC Transfer degree allows students to defer for completion after transfer two courses in IGETC Area 3 (Arts and Humanities) and two courses in IGETC Area 4 (Social and Behavioral Sciences). Admission to the University of California is competitive; successful completion of this program does not guarantee acceptance to a UC campus.

## Learning Outcomes

Upon successful completion of the program, students will be able to:

- Reason qualitatively and logically about physical phenomena using scientific models.
- Apply Newton's laws, thermodynamics, the laws of electricity and magnetism, quantum theory, and the principles of energy conservation to problems involving motion, heat, light, electro-magnetism, and matter.
- Use appropriate instruments to perform scientific experiments to analyze data to check agreements with theoretical predictions.

## Associate in Science for UC Transfer Degree Major Requirements

Code	Title	Units
<b>Required Core</b>		
CHEM 1A	General Chemistry I	5
CHEM 1B	General Chemistry II	5
MATH 20A	Calculus with Analytic Geometry I	4
MATH 20B	Calculus with Analytic Geometry II	4
MATH 20C	Calculus of Several Variables	4
MATH 31	Linear Algebra	4
MATH 32	Differential Equations	4
PHYS 3A	Science and Engineering Physics I	4
PHYS 3B	Science and Engineering Physics II	4
PHYS 3C	Science and Engineering Physics III	4
<b>TOTAL MAJOR UNITS</b>		<b>42</b>
<b>Additional Requirements <sup>1</sup></b>		<b>20</b>
Complete Competency Requirements and IGETC pattern, deferring for completion after transfer to UC two courses each in Area 3 (Arts and Humanities) and Area 4 (Social and Behavioral Sciences). All courses taken must be UC-transferable.		
<b>Total Units</b>		<b>62</b>

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Consult with a counselor for campus-specific admission requirements.

Please refer to the graduation requirements section of the Catalog for information about degree and certificate requirements including Reading and Writing, Mathematics, Information Competency, and General Education requirements.