

# PHYSICS ASSOCIATE IN SCIENCE DEGREE FOR UC TRANSFER

Division: Science/Engineering/Mathematics

PROGRAM CODE: 2S43037

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 provides the lower-division coursework needed in order to continue in a bachelor's-degree program; however, the Physics AS-UCT also provides valuable quantitative and problem-solving skills that are in demand by employers hiring, e.g., lab technicians, or in a variety of fields such as manufacturing and education. Of 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. This degree requires the completion of 40 units in the major, 16-20 units of Intersegmental General Education Transfer Curriculum (IGETC), and a minimum of 60 semester units with an overall grade point average of at least 2.0, where a higher grade point average is expected to remain competitive for admission to the UC system. Furthermore, students must achieve a cumulative minimum grade point average of 3.5 in the major for guaranteed transfer to the UC system.

**OUTCOME 1:** Demonstrate an understanding of how the scientific method is used to explore topics in physics.

**OUTCOME 2:** Demonstrate the ability to apply physics concepts to solve problems.

[https://www.curricunet.com/fullerton/reports/program\\_report.cfm?programs\\_id=1289](https://www.curricunet.com/fullerton/reports/program_report.cfm?programs_id=1289)

Code	Title	Units
<b>Required Core (34 units)</b>		
CHEM 111AF	General Chemistry I	5
CHEM 111BF	General Chemistry II	5
MATH 151 F	Calculus I (formerly MATH 150AF)	4
or MATH 151HF	Honors Calculus I (formerly MATH 150HF)	
MATH 152 F	Calculus II (formerly MATH 150BF)	4
or MATH 152HF	Honors Calculus II	
MATH 251 F	Multivariable Calculus (formerly MATH 250AF)	4
PHYS 221 F	General Physics I	4
PHYS 222 F	General Physics II	4
PHYS 223 F	General Physics III	4
<b>Select ONE course pair from the following (6 units)</b>		<b>6</b>
MATH 252 F & MATH 253 F	Linear Algebra and Differential Equations (formerly MATH 250BF) and Additional Topics in Linear Algebra (formerly MATH 250CF)	6
MATH 255 F & MATH 260 F	Linear Algebra and Ordinary Differential Equations	6
<b>Total Units</b>		<b>40</b>

Program Level Student Learning Outcomes