

PHYSICS 2.0 ASSOCIATE IN SCIENCE DEGREE FOR TRANSFER (AS-T)

Division: Science/Engineering/Mathematics

PROGRAM CODE: 1S

This curriculum is designed to provide an opportunity for the Physics major to receive an Associate in Science Degree in Physics for Transfer to CSU or UC (AS-T in Physics 2.0) which completes the first- and second year requirements for transfer to a four-year public California institution. Students with a degree in physics may pursue careers in a variety of fields such as science, engineering, teaching, and patent law. While at least a baccalaureate degree is a recommended preparation for those considering professional careers, completion of this curriculum will demonstrate commitment to the field and provide comprehensive preparation for further academic study through upper-division course work. This curriculum specifically prepares the prospective transfer student for upper division coursework in Physics or a similar major at a California State University (CSU) campus. This degree provides valuable quantitative and problem-solving skills that are in demand for hiring as lab technicians in a variety of fields such as manufacturing, engineering, and education. Students should consult a counselor, the Transfer Center, and the catalog of the transfer college or university to plan a specific program of study to meet the college or university's requirements. Note: Courses that fulfill major requirements for an Associate Degree for Transfer at Cypress College might not be the same as those required for completing the major at all transfer institutions offering a Baccalaureate Degree. The Student Transfer Achievement Reform Act (Senate Bill 1440, now codified in California Education Code sections 66746-66749) guarantees admission to a California State University (CSU) campus for any community college student who completes an "associate degree for transfer", a newly established variation of the associate degrees traditionally offered at a California community college. The AS-T is intended for students who plan to complete a bachelor's degree in a similar major at a CSU or UC campus. Students completing these degrees (AS-T) are guaranteed admission to the CSU system, but not to a particular campus or major. Students transferring to a CSU campus that does accept the AS-T will be required to complete no more than 60 units after transfer to earn a bachelor's degree (unless the major is designated "high-unit" major). This degree may not be the best option for students intending to transfer to a particular CSU campus or to a university or college that is not part of the CSU system. The completion of this curriculum will demonstrate commitment to the Physics field and provide comprehensive preparation for upper-division work. To earn an AS-T in Physics 2.0 students must complete the following requirements: (1) a minimum of 32 semester units or 48 quarter units in the Physics major with a minimum grade of "C"; A P(Pass) grade is an acceptable grade for a course in the major only if the P is defined to be equivalent to a C or better (2) California General Education Transfer Curriculum (Cal-GETC); (3) elective courses to complete a minimum of 60 units of CSU transferable coursework; (4) have an overall GPA of 2.0. Students should consult with a counselor when planning to complete the degree for more information on specific university admission and transfer requirements. This degree requires a total of 32 semester units in the physics major in addition to other graduation requirements.

Code	Title	Units
Required Courses: (32 units)		
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
or MATH 150PC	Calculus I	
MATH 150BC	Calculus II	4
MATH 250AC	Multivariable Calculus	4
MATH 250BC	Linear Algebra and Differential Equations	5
CIS 226 C	Java Programming	3-4
or CIS 247 C	Python Programming	
or CSCI 123 C	Introduction to Programming Concepts in C++	
Total Units		32-33

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.

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