PHYSICS ASSOCIATE IN SCIENCE DEGREE FOR TRANSFER 2.0

Division: Natural Sciences

PROGRAM CODE: 2S46081

The Physics Associate in Science Degree for Transfer 2.0, also called the Physics AS-T Degree, prepares students to transfer to CSU campuses that offer bachelor's degrees in physics. Ed Code Section 66746-66749 states students earning the Physics AS-T Degree will be granted priority for admission as a physics major to a local CSU, as determined by the CSU campus to which the student applies. The main purpose of a Physics AS-T is to provide the lower-division coursework needed in order to continue in a bachelor's-degree program; however, the Physics AS-T 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. The Physics AS-T Degree requires a total of 34 units of required courses as indicated below. The following is required for all AA-T or AS-T degrees, and there are no additional graduation requirements: (1) Completion of 60 semester units or 90 quarter units that are eligible for transfer to the California State University, including both of the following: a) The California General Education Transfer Curriculum (Cal-GETC); (b) A minimum of 18 semester units or 27 quarter units in a major or area of emphasis, as determined by the community college district. (2) Obtainment of a minimum grade point average of 2.0. (3) ADTs also require that students must earn a C or better in all courses required for the major or area of emphasis. This is proposed as a high-unit STEM major that prepares students for transfer to both the CSU and UC. Exception to 60-unit requirement by AB 928: 6 additional units for the ADT. Supporting evidence and rationale is required. A “P” (Pass) grade is an acceptable grade for courses in the major only if the P is defined to be equivalent to a C or better.

Code	Title	Units
Required Core (34 units):		
CSCI 123 F	Introduction to Programming Concepts in C ++	4
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
MATH 255 F	Linear Algebra	3
MATH 260 F	Ordinary Differential Equations	3
PHYS 221 F	General Physics I	4
PHYS 222 F	General Physics II	4
PHYS 223 F	General Physics III	4
Total Units		**34**

Program Level Student Learning Outcomes

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=1629