

PHYSICS, ASSOCIATE IN SCIENCE FOR TRANSFER

Students who complete Physics courses will apply fundamental physical laws and equations describing physical phenomena to analyze both quantitatively and qualitatively specific problems in the physical universe; recognize, comprehend, and apply the similar principles in the various disciplines of physics, and critically evaluate and analyze observations and measurements through the use of accepted scientific methods and report the results in formal papers that conform to the style of modern scientific writing.

The Associate in Science in Physics for Transfer (AS-T) is intended for students who plan to transfer and complete a bachelor's degree in Physics, or a "similar" major at a CSU campus. Each CSU campus determines which of the degrees it offers are "similar" and can be completed with the preparation included in the AS-T in Geology within 60 units once a student transfers, so which majors are "similar" varies from CSU to CSU. For a current list of what majors (and what options or areas of emphasis within that major) have been designated as "similar" to this degree at each CSU campus, please refer to the CSU's Associate Degree for Transfer Major and Campus Search (<https://www.calstate.edu/apply/transfer/Pages/associate-degree-for-transfer-major-and-campus-search.aspx>) website and seek guidance from a Moorpark College counselor. Students completing this degree are guaranteed admission to the CSU system, but not to a particular campus or major.

To earn an AS-T in Physics, students must:

1. Complete 60 semester or 90 quarter units that are eligible for transfer to the California State University, including both of the following:

- The Intersegmental General Education Transfer Curriculum (IGETC) or the California State University General Education Breadth (CSU GE-Breadth) requirements.
- The coursework required for the AS-Physics as listed in the Moorpark College catalog.

2. Obtain a minimum Grade Point Average (GPA) of at least 2.0 in all CSU-transferable coursework. While a minimum of 2.0 is required for admission, some transfer institutions and majors may require a higher GPA. Please consult with a counselor for more information.

3. Obtain a grade of "C" or better or "P" in all courses required in the major. Even though a "pass-no-pass" is allowed (Title 5 §55062), it is highly recommended that students complete their major courses with a letter grade (A, B, or C).

4. Complete requirements in residency. For students in the Ventura County Community College District, a minimum of 12 semester units must be completed in residence within the college district.

Students transferring to a CSU campus that does accept the AS-T in Physics will be required to complete no more than 60 units after transfer to earn a bachelor's degree (unless the major is a designated "high-unit" major at a particular campus). 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. Students should consult with a counselor to obtain more information on university admission and transfer requirements.

Course ID	Title	Units/ Hours
REQUIRED CORE: Complete the following courses		
PHYS M20A	Mechanics of Solids and Fluids	4
PHYS M20AL	Mechanics of Solids and Fluids Laboratory	1
PHYS M20B	Thermodynamics, Electricity, and Magnetism	4
PHYS M20BL	Thermodynamics, Electricity, and Magnetism Laboratory	1
PHYS M20C	Wave Motion, Optics, and Modern Physics	4
PHYS M20CL	Wave Motion, Optics, and Modern Physics Laboratory	1
MATH M25A	Calculus with Analytic Geometry I	5
or MATH M25AH	Honors: Calculus with Analytic Geometry I	
MATH M25B	Calculus with Analytic Geometry II	5
MATH M25C	Calculus with Analytic Geometry III	5
Total Units for the Major		30
General Education Requirements: To comply with SB 1440 and to not exceed the maximum units allowed, the IGETC is the recommended GE pattern to be used for this transfer degree.		
IGETC Pattern		37
NOTE: IGETC 1C is required for all CSU applicants. Students applying to a UC or Private school may earn this ADT without IGETC 1C but will be ineligible to apply to a CSU.		
Double-Counted Units		7
Electives Units to meet 60 CSU transferable		0
Total Units Required for the AS-T Degree		60

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

- discern between relevant and irrelevant evidence, formulate appropriate hypotheses, and distinguish between experiments to determine which one(s) leads to an appropriate conclusion.
- analyze mechanical systems.
- analyze systems involving thermodynamics and electricity and magnetism.
- analyze problems from mechanics, electricity magnetism, modern physics, optics, and thermodynamics and will be able to recognize and apply equations to solve the problems.