

# 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. Students completing this AS-T degree are guaranteed admission to the CSU system, but not necessarily to a particular CSU campus or major of their choice. For a current list of what majors (and what options or areas of emphasis within that major) have been designed as "similar" to this degree at each CSU campus, please refer to [adegreewithaguarantee.com](http://adegreewithaguarantee.com) and seek guidance from a Moorpark College counselor.

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

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

a. The Intersegmental General Education Transfer Curriculum (IGETC) or the California State University General Education-Breadth (CSU GE-Breadth) requirements. **NOTE:** 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.

b. A minimum of **30** semester units in a major.

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 §55063), 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 units must be completed in residency at the college granting the degree.

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
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## REQUIRED CORE: Complete the following courses

PHYS M20A	Mechanics of Solids and Fluids	4
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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 or MATH M25AH	Calculus with Analytic Geometry I Honors: Calculus With Analytic Geometry I	5
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.**

Total Units Required for the AS-T Degree: 60

Electives to meet 60 CSU units: 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.