

# PROGRAM OF STUDY

## Associate in Science in Physics for Transfer AS-T

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 in Physics) is intended for students who plan to transfer and complete a bachelor's degree in Physics or Physics Education at a CSU campus. Students completing this degree are guaranteed admission to the CSU system, but not necessarily to a particular CSU campus or major of their choice. Students should consult with a counselor for more information on university admission and transfer requirements as this AS-T in Physics may not be the best option for students intending to transfer to a particular CSU campus that does not accept the AS-T in Physics or to a college or university that is not part of the CSU system.

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

1. 60 semester or 90 quarter CSU transferable units.
2. 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.
3. Completion of 30 specified major units. All courses in the major must be completed with a grade of C or better.
4. Certified completion of the Intersegmental General Education Transfer Curriculum (IGETC for CSU) pattern.

### **REQUIRED CORE: Complete the following**

	<b>Units</b>	
PHYS M20A	Mechanics of Solids and Fluids	4
PHYS M20AL	Mechanics of Solids and Fluids Lab	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
	<b>or</b>	
MATH M25AH	Honors: Calculus with Analytic Geometry I	5
MATH M25B	Calculus with Analytic Geometry II	5
MATH M25C	Calculus with Analytic Geometry III	5

### **Additional Recommended Preparation (not part of the TMC):**

It is highly recommended that counselors at community colleges discuss other possible courses that are part of major preparation at a local CSU campus and encourage students to take some of these additional courses prior to transfer. Some typical courses that may be articulated major preparation are differential equations, linear algebra, general chemistry, and computer programming. While these additional courses are not required for this degree, completion of these courses will better prepare students for upper division Physics courses at a CSU.

**Units**

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**Total Units**

**30**

PID 320