PHYSICS, ASSOCIATE IN SCIENCE FOR TRANSFER (AS-T)

The Physics department strives to provide our students with the educational background necessary to pursue a successful career and to successfully transition into a 4-year academic program. Physics is the foundation discipline which must be incorporated into the education of anyone preparing for a career in engineering, or science. It is equally true for the nonscientist having the responsibility to make meaningful decisions in society—the citizen in politics, the business person or social scientist who deals with problems of a society strongly linked to technology based on application of physical principles. A truly educated person preparing for life in the 21st century can hardly afford not to be aware of the statements of contemporary physics.

The Associate in Science for Transfer degree in Physics provides students with the foundational knowledge necessary to make a successful transition into a Baccalaureate Degree at any of the CSU campuses. The Associate Degree for Transfer (AA-T or AS-T) is a special degree offered at California Community Colleges. Students who earn an AA-T or AS-T degree are guaranteed admission to a campus within the California State University (CSU) system in a similar major, although not necessarily to a specific campus. Students who complete an AA-T or AS-T are given priority consideration when applying to a particular program that is similar to the student's community college major and will be given a special GPA advantage when applying to CSU impacted campuses or majors. Students who are planning to pursue an AA-T or AS-T are strongly advised to meet with a counselor for additional information about this transfer program. Visit https://adegreewithaguarantee.com/ for more information about these degrees.

Requirements

Associate Degree for Transfer Graduation Requirements

1. All Department Requirements listed below with a "C" or better or "P" in each course.
2. IGETC-CSU (https://catalog.sbcc.edu/transfer-curricula/#igetctext) pattern.
3. A total of 60 CSU transferable semester units.
4. Maintain a minimum cumulative CSU transferable GPA of 2.0.
5. A minimum of 12 units through SBCC.

Code	Title	Units
Department Requirements		
MATH 150	Calculus with Analytic Geometry I	5
MATH 160	Calculus with Analytic Geometry II	5
MATH 200	Multivariable Calculus	4
PHYS 121	Mechanics Of Solids And Fluids	5
PHYS 122	Electricity and Magnetism	5
PHYS 123	Heat, Light and Modern Physics	5
Total Units		**29.00**

Learning Outcomes

1. Demonstrate proficiency, both conceptually and mathematically with calculus, in solving mechanical static and dynamic mechanical problems involving both solids and fluids.
2. Demonstrate proficiency, both conceptually and mathematically with calculus, in solving mechanical wave problems.
3. Demonstrate proficiency, both conceptually and mathematically with calculus, in solving thermodynamic problems.
4. Demonstrate proficiency, both conceptually and mathematically with calculus, in solving electric, magnetic and electromagnetic problems.
5. Demonstrate proficiency, both conceptually and mathematically with calculus, in solving ray and wave optics problems.
6. Demonstrate proficiency, both conceptually and mathematically with calculus, in solving modern physics problems.
7. Demonstrate proficiency in construction and assembly of experimental apparatuses; conduct and analyze measurements of physical phenomena; assess experimental uncertainty; make meaningful comparisons between experiment and theory; and interpret results.

Recommended Sequence

Make an appointment with your SBCC academic counselor through Starfish to create a Student Education Plan that reflects a recommended course sequence for this program that is tailored to your individual needs.

How to schedule an Academic Counseling appointment (https://www.sbcc.edu/counselingcenter/counselingappointments.php).