#### **PHYSICS**

#### **PROGRAM**

The Associate in Science Transfer Degree in Physics provides students with a core curriculum that will prepare them with the knowledge and skills required to transfer and earn a Baccalaureate degree in Physics (or a similar major) at a California State University (CSU). Students will develop strong mathematical, analytical, and laboratory skills, and a solid understanding of the fundamental physical laws that govern the universe. This degree certifies a students' ability to analyze and solve problems in the field of physics and other fields where expertise in physics is required. The coursework to complete this degree will also satisfy the lower division requirements for a variety of Baccalaureate degrees including, Engineering, Chemistry, Mathematics, and Computer Science.

#### **DEGREE REQUIREMENTS**

- Completion of 60 transferable semester units to the California State University.
- Obtainment of a minimum grade point average of 2.0 in all transferable coursework.
- Full completion of the Intersegmental General Education Transfer Curriculum (IGETC) for CSU, with completion of Area 1C; Oral communication (CSU admission requirement)
- A minimum of 30 semester units required for the major
- All courses in the major must be completed with a grade of "C" or better or a "P" if the course is taken on a "Pass-No Pass" basis (Title 5 § 55063)
- Minimum 12 units in residence

### PROGRAM LEARNING OUTCOMES (PLOs)

Upon completion of the Degree program, students are able to:

- Collect data accurately and safely by performing precise, quantitative measurements using proper techniques and modern instrumentation.
- Use data obtained from lab equipment to construct graphs, and judge the accuracy and precision of results.
- Apply basic physics laws such as Newton's three laws of motion and the three laws of thermodynamics in problem solving.
- Use algebra through multivariable calculus to set up and solve equations related to mechanics, electromagnetism, waves, optics and modern physics, demonstrating analytical and critical thinking skills.

Transfer students are strongly encouraged to create a transfer plan with a counselor as early as possible. Course articulation and major prep for this major at other universities should be reviewed with a counselor.

#### **PHYSICS**

**TOTAL UNITS** 

**Associate in Science for Transfer** 

**Major Units: 30** 

#### **REQUIRED CORE COURSES**

PHYSICS 101	Physics for Engineers and Scientists I	5
PHYSICS 102	Physics for Engineers and Scientists II	5
PHYSICS 103	Physics for Engineers and Scientists III	5
MATH 265	Calculus with Analytic Geometry I	5
MATH 266	Calculus with Analytic Geometry II	5
MATH 267	Calculus with Analytic Geometry III	5



30

Physics AS-T Similar Programs at local CSU campuses

Dominguez Hills	Physics	BS
	- Physical Science	
Fullerton	Physics - General	BS
Long Beach	Physics - General	BA
Los Angeles	Physics - General	BA
Northridge	Physics - General	BA
Northridge	Physics	BS
Northridge	Physics	BS
	-Astrophysics	
Pomona	Physics - General	BS

For more CSU programs, visit the <u>Associate Degree for Transfer Major & Campus Search</u> weblink.

# **Declaring the Major**

Meet with a counselor to set the following plans and majors in PeopleSoft. (Required to allow you to apply for graduation online.)

- Physics AS-T
- A.A. degree in Liberal Arts and Sciences: Mathematics, Physical and Natural Sciences (optional)
- IGETC Certificate of Achievement

# **Preparing for Graduation**

Please log in to PeopleSoft Student Portal to fill out the appropriate application for the degree/certificate and submit it before the deadline.

- If you have attended any colleges or universities outside the Los Angeles Community College District and will be using coursework toward an associate degree, Certificate of Achievement or GE Certification, we require official transcripts to be on file with Admissions and Records. This also applies to any coursework taken within our District prior to Spring 1974. Transcripts from other institutions must be mailed directly to the Admissions & Records Office by the respective colleges for credit.
- If you are going to use courses from colleges or universities outside of the California Community College system, you should make an appointment with a counselor for a transcript evaluation to determine which courses can be used towards your degree or certification. It is highly recommended that all students who start at LATTC meet with a counselor to discuss your transfer educational goals.

# Applying for Graduation (Degree and Certificate)

 Please logon to the PeopleSoft portal and navigate to:

# Academic Records >My Academics >Petition for Graduation

- Apply within the first 6 weeks of the current semester.
- Applications submitted after deadline may be reviewed for the subsequent semester.