

Physics AS-T (CSU GE Track)

Program Description: The Physics program provides curriculum concerned with the properties of matter and energy, and their interactions and transformations. The Physics program includes both major and non-major courses. The following is a sample of career options available for physics. Most require a baccalaureate degree, and some require a graduate degree: air pollution operations, consumer safety officer, engineer, teacher, astrophysicist and physicist.

Program SLO: 1) Reason conceptually and logically about physical phenomena using scientific models involving the fundamental physics principles of kinematics, kinetics, energy conservation, electromagnetism, thermodynamics, optics and modern physics 2) Utilize appropriate instruments to measure and examine examples of physics phenomena and relate the results of experimental data to the concepts discussions in the lecture portion of class.

Important Transfer Information: Connect with a counselor to develop an individualized student education plan through the Counseling Department @ <https://www.canyons.edu/counseling> or (661) 362-3288/(661) 362-3811. The sequence listed below, may not meet all your transfer admissions requirements.

Major courses are sequenced and **BOLDED** based on recommendations by the [Physics Department](#).

First Semester	(3 15 units)		
Course	Title	Units	Major and GE Courses
MATH 211	Calculus (FA, SP, SU)	5	Major Course and Area B4
ENGLISH 101/101H	English Composition (FA, WI, SP, SU)	4	Area A2
Life Science	Choose one course from CSU GE Area B2 (FA, WI, SP, SU) – lecture course only	3	Area B2
Lifelong Learning	Choose one course from the CSU GE Area E category that is at least 3-units (FA, WI, SP, SU)	3	Area E
Term Total:		15	

Check the Honors website for most recent course offerings. Must be enrolled in the Honors program to take courses, see below

Second Semester	(16 30 units)		
Course	Title	Units	Major and GE Courses
MATH 212	Calculus II (FA, SP, SU)	5	Major Course
PHYSICS 220	Physics for Scientists and Engineers: Mechanics of Solids and Fluids (FA, SP, SU)	4	Major Course and Area B1 and B3
**Critical Thinking	Choose one course from the CSU GE A3 category (FA, WI, SP, SU)	3	Area A3
American Institutions – Choose Option I or II	Complete first course in chosen option – (note: must take both classes within one option) (FA, WI, SP, SU) – see table below	3	American Institutions and Area C2
Term Total:		15	

****Some CSU's will require a second semester of English Composition.**

Third Semester			
Course	Title	Units	Major and GE Courses
MATH 213	Calculus III (FA, SP, SU)	5	Major Course
PHYSICS 221	Physics for Scientists and Engineers: Electricity and Magnetism (FA, SP, SU)	4	Major Course
COMS 105/105H or COMS 120	Fundamentals of Public Speaking (FA, WI, SP, SU) or Small Group Communication (FA, WI, SP, SU)	3	Area A1
Art Class	Choose one course from CSU GE Area C1 (FA, WI, SP, SU)	3	Area C1
Term Total:		15	

Fourth Semester	(46 60 units)		
Course	Title	Units	Major and GE Courses
PHYSICS 222	Physics for Scientists and Engineers: Wave, Motion, Heat, Optics and Modern Physics (FA, WI, SP, SU)	4	Major Course
Arts or Humanities	Choose one course from CSU GE Area C1 or C2 (FA, WI, SP, SU)	3	C1 or C2
Social Science	Choose one course from CSU GE Area D (FA, WI, SP, SU)	3	Area D
Ethnic Studies	Choose one course from CSU GE Area F (FA, WI, SP, SU)	3	Area F
American Institutions	Complete second course in chosen option – (note: must take both classes within one option) (FA, WI, SP, SU) – see table below	3	American Institutions and Area D
Term Total:		15	

Total Units: 60

American Institutions Requirement – Select one of the options below and complete a total of 6 units

Option 1	One course from the following: Economics 170/170H, History 111/111H, History 112/112H, History 120/120H, or History 130 AND Political Science 150/150H
Option 2	History 111/111H AND History 112/112H

Counseling Resources

Physics Department: <https://www.canyons.edu/physics>

CSU General Education Guide: <https://www.canyons.edu/student-services/counseling/transfer/index.php>

CSU/UC Articulation Agreements: www.assist.org

Cal State University: www.calstate.edu

A Degree with a Guarantee: <http://adegreewithaguarantee.com/>

Astronomy and Physics Club: cocastronomyclub@gmail.com

COC Honors Program: <https://www.canyons.edu/academics/honors/index.php>

Math, Engineering, and Science Achievement (MESA): www.canyons.edu/mesa

Petition for Associate Degree: Check the [student calendar](#) for term-specific submission deadlines. Summer graduation associate degree petitions are due by April 1st for your name to appear in the spring commencement pamphlet. The petition form must be reviewed with a counselor and may be found here:

https://www.canyons.edu/_resources/documents/student-services/admissions/Petition_for_Associate_Degree_and_Certificate_of_Achievement.pdf

Career Resources

California Career Zone: <https://www.cacareerzone.org/>

O*Net Online: <https://www.onetonline.org/>

Bureau of Labor and Statistics: www.bls.gov

Professional Associations: www.aps.org