

2020-21

PHYSICS

AS-T PHYSICS

Pathways for Transfer

(CSUGE) NAS719 / (IGETC) NAS720

REQUIRED COURSES (24 semester units) UNITS

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PHY-4A Mechanics	4
PHY-4B Electricity and Magnetism	4
PHY-4C Heat, Light and Waves	4
MAT-1A Calculus I	4
MAT-1B Calculus II	4
MAT-1C Calculus III	4

This academic plan includes major coursework and recommended general education requirements for transfer. **Transfer requirements vary based on institution.** Please see a counselor to develop your personal educational plan and determine appropriate work/life/school balance.

TERM 1			
CSUSB/CPP		UCR	
COURSE	UNITS	COURSE	UNITS
ENG 1A	4	ENG 1A	4
MAT 1A	4	MAT 1A	4
MUS 3, GAM 2 or THE 3	3	ARE 35, 36 or GAM 2	3
CHE 1A	5	PHI 32, 12, 22 or 35	3
GUI 47	3	GUI 47	3
Total Units	19	Total Units	17

TERM 2			
COURSE	UNITS	COURSE	UNITS
PHI 11, REA 4 or COM 3	3	ENG 1B	4
MAT 1B	4	MAT 1B	4
PHY 4A	4	PHY 4A	4
COM 9	3	COM 1, 6 or 9	3
PHI 32, 12, 22 or 35	3		
Total Units	17	Total Units	15

TERM 3			
COURSE	UNITS	COURSE	UNITS
MAT 1C & 3	7	MAT 1C	4
PHY 4B	4	PHY 4B	4
POL 1	3	POL 1	3
ANT 2 or JOU 7	3	JOU 7, ANT 7 or 1	3
Total Units	17	Total Units	14

TERM 4			
COURSE	UNITS	COURSE	UNITS
PHY 4C	4	PHY 4C	4
MAT 2 (CPP only)	4	BIO 19, 8, 1 or 3	3-4
ANT 1 or BIO 19, 7 or 8	3-4	GEG 3, 6 or 4	3
GEG 6 or 3	3	SOC 10	3
HIS 6, 7, 14, 31 or 34	3	HIS 1 or 2	3
Total Units	17-18	Total Units	16-17

✓ First Term To-Do List	
	Submit official high school transcripts and AP/IB/CLEP exam scores
	Visit Engagement Center (ST 108)
	Meet with a counselor to personalize your EduNav plan and to determine if you have already met the IGETC foreign language requirement through high school coursework
	Register for ILA-800 each term to receive FREE tutoring

✓ Second Term To-Do List	
	Visit the Career Center (2nd floor of CSS)
	Meet with a Mustang Mentor
	Get involved in ASNC or other student organizations
	Look for internship, research or volunteer opportunities in your field (s) of interest

✓ Third Term To-Do List	
	Meet with a counselor to verify your transfer status
	Attend Transfer Fair , transfer workshops and meet with university reps
	Submit transfer applications (ask about UC TAG)
	Complete FAFSA before march 2nd (include all transfer institutions that you applied to)

✓ Fourth Term To-Do List	
	Submit Degree Applications via WebAdvisor
	Complete transfer application updates
	Finish strong and order final transcripts for your transfer institution along with CSUGE or IGETC certification

A **PHYSICS** degree provide students with a foundation in physics and mathematics for students planning to transfer into a baccalaureate program in physics .

WHERE CAN I WORK?

- ◆ Aerospace Industry/NASA
- ◆ Architecture Firm
- ◆ Biotechnology/Medical Equipment
- ◆ Computer Company
- ◆ Education
- ◆ Electronic Manufacturer
- ◆ Engineering Firm
- ◆ Federal Government
- ◆ Healthcare & Pharmaceutical
- ◆ Optical Physics
- ◆ Planetarium & Observatories
- ◆ National Science Foundation
- ◆ National Weather Service
- ◆ Science Museums

HOW DO I GET STARTED?

- ⇒ Visit the **CAREER CENTER** to learn about opportunities in the field and help determining if it is a good fit for your preferred values, strengths, skills, and interests. CSS 2nd floor.
- ⇒ Attend annual **TRANSFER FAIR** and **TRANSFER CENTER WORKSHOPS** to determine which university is the best fit for you as well as application requirements and transfer process.
- ⇒ Build **LABORATORY** and **RESEARCH SKILLS** (experimental design, data interpretation, and **PROBLEM SOLVING**) through coursework and research with professors.
- ⇒ Practice using **SCIENTIFIC INSTRUMENTS** and equipment. **COMPUTER SKILLS** are critical.
- ⇒ **JOB SHADOW** and **NETWORK WITH PROFESSIONALS** in positions you wish to obtain.
- ⇒ Participate in campus clubs to gain **TEAMWORK** and **LEADERSHIP SKILLS**.
- ⇒ Practice interpersonal, small group and public speaking **COMMUNICATION SKILLS**.
- ⇒ Gain experience through **RESEARCH/INTERNSHIP OPPORTUNITIES** such as NASA Jet Propulsion Lab in Pasadena.
- ⇒ Join **PROFESSIONAL ASSOCIATION** such as the American Geophysical Union, American Institute of Physics, American Meteorological Society or the American Association of Physics Teachers to network and maintain current knowledge of opportunities in the field.

WHAT CAN I DO WITH THIS ASSOCIATE DEGREE?

Position Title	CA Annual Openings	CA Median Salary	In Riverside County Wages will Support
Construction & Building Inspectors	1,420	\$89,360	1 adult, 3 children
Manufacturing Engineering Technologist	950	\$68,500	1 adult, 2 children
Medical Equipment Repairer	400	\$58,290	1 adult, 2 children
Nuclear Medicine Technician	110	\$115,900	2 adults, 4 children
Photonics Technicians	950	\$68,500	1, adult, 2 children
Teachers Assistant	17,710	\$35,380	1 adult
Tutor	22,220	\$39,250	1 adult

WHAT SKILLS DO I NEED?

- ⇒ **Science** — using scientific rules and methods to solve problems.
- ⇒ **Mathematics** — using mathematics to solve problems.
- ⇒ **Critical Thinking** — using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems.
- ⇒ **Complex Problem Solving** — identifying complex problems and reviewing related information to develop and evaluate options and implement solutions.
- ⇒ **Reading Comprehension** — understanding written sentences and paragraphs in work related documents.

WHAT CAN I DO WITH MORE EDUCATION AND TRAINING?

Position Title	CA Annual Openings	CA Median Salary	In Riverside County Wages will Support
Aerospace Engineer	760	\$123,210	
Astronomer	No data	\$161,850	2 adults, 6 children
Biophysicist	520	\$95,310	1 adult, 3 children
Civil Engineer	3,430	\$107,530	2 adults, 3 children
High School Physics Teacher	8,260	\$87,120	1 adult, 3 children
Physicist	300	\$111,820	2 adults, 4 children
Space Scientist	No data	\$123,660	2 adults, 4 children
Transportation Engineer	3,430	\$107,530	2 adults, 3 children
University/College Professor	1,600	\$119,700	2 adults, 4 children

ESTIMATED COST TO OBTAIN ASSOCIATE DEGREE

60 Units x \$46 per unit (CA residents) = \$2,760 Health, ASNC, Parking Fees (x 4 terms) = \$360
 Books & Supplies = \$3,944 **Total Cost = \$7,064**

PREFERRED WORK STYLES INCLUDE:

- ⇒ **Attention to Detail** — being careful about detail and thorough in completing work tasks.
- ⇒ **Analytical Thinking** — analyzing information and using logic to address work-related issues and problems.
- ⇒ **Initiative** — a willingness to take on responsibilities and challenges.
- ⇒ **Persistence** — persistence in the face of obstacles.
- ⇒ **Integrity** — being honest and ethical.

For more information about careers, education and training requirements, salary data, and job outlooks visit www.onetonline.org, www.bls.gov or www.labormarketinfo.edd.ca.gov/OccGuides.