

Physics

Warriors on the Way to STEM

WOW2STEM

San Joaquin Delta College

Majoring in Physics at Stanislaus State leads to careers in diverse fields requiring understanding of the basic principles which underlie all of the sciences and engineering. This includes physics, astronomy, energy and the environment, and optical communications. This is the degree program for students going on to graduate studies in physics or engineering.

What can I do with a degree in Physics?

Graduates from the Physics program can follow career paths in industry, commerce and teaching. Possible fields include semiconductors, optics, and optoelectronics and engineering. Students with a BS degree in Physics frequently pursue graduate degrees in physics, astronomy, mechanical or electrical engineering.

How can I participate in WOW2STEM?

- Meet with a STEM counselor each semester at your community college.
- Follow a student educational plan (SEP) as outlined by a STEM counselor.
- Attend presentations and workshops throughout the year.
- Follow application dates and deadlines as directed by the Transfer Advisor and Stanislaus State.

For more information you may contact:

Elizabeth Monroe, Transfer Specialist
209.667.3164

emonroe@csustan.edu

www.csustan.edu/STEM-success



Joseph is a Junior at Stanislaus State. Joseph began his academic career as a first time freshman after graduating from high school. He chose to attend because of the golf team and the beauty of the campus. He had dreams of becoming a golfer. Joseph is a Physics major, soon to be a double major in Math. In Spring 2014, Joseph participated in research which involved superconductors.

Physics B.A. Roadmap

Prerequisites to Lower-Division Courses	Lower-Division Courses at San Joaquin Delta College	Major Course Requirements at Stanislaus State
MATH 2	PHYS 4A (Mechanics)	PHYS 3010 - Introduction to Mathematics Physics I (3 units)
PHYS 4A & MATH 2	PHYS 4B (Waves, Sound,..)	
PHYS 4A & MATH 3	PHYS 4C (Electricity and Mag.)	PHYS 3100 - Classical Mechanics (4 units)
CHEM 3A & MATH 92S or MATH 82	CHEM 1A (Gen. Chemistry)	PHYS 3320 - Electricity and Magnetism I (3 units)
CHEM 1A	CHEM 1B (Gen. Chemistry)	PHYS 3520 - Modern Physics and Quantum Mechanics (3 units)
MATH 38A & MATH 38B or MATH 39	MATH 1 (Calculus 1)	PHYS 4102 - Experimental Physics (2 units)
MATH 1	MATH 2 (Calculus 2)	PHYS 4250 - Analog and Digital Electronics (4 units)
MATH 2	MATH 3 (Vector Calculus)	Electives (6 units)
CS 11 or CSP 17 & ENGR 1	CSP 26A (Java Prog.) or CSP 31A (C++ Prog.)	

Physics B.S. Roadmap		
Prerequisites to Lower-Division Courses	Lower-Division Courses at San Joaquin Delta College	Major Course Requirements at Stanislaus State
MATH 2	PHYSC 4A (Mechanics)	PHYS 3010 - Introduction to Mathematics Physics I (3 units) PHYS 3100 - Classical Mechanics (4 units) PHYS 3320 - Electricity and Magnetism I (3 units) PHYS 3520 - Modern Physics and Quantum Mechanics (3 units) PHYS 4102 - Experimental Physics (2 units) PHYS 4250 - Analog and Digital Electronics (4 units) PHYS 4510 - Quantum Mechanics (3 units) PHYS 4530 - Thermal and Statistical Physics (4 units) Electives (9 units)
PHYSC 4A & MATH 2	PHYSC 4B (Waves, Sound,...)	
PHYSC 4A & MATH 3	PHYSC 4C (Electricity & Mag.)	
CMATH 92S or Math 82 & CHEM 3A	CHEM 1A (Gen. Chemistry 1)	
CHEM 1A	CHEM 1B (Gen. Chemistry 2)	
MATH 38A & MATH 38B or MATH 39	MATH 1 (Calculus 1)	
MATH 1	MATH 2 (Calculus 2)	
MATH 2	MATH 3 (Vector Calculus)	

For all degree requirements, visit www.csustan.edu/roadmaps

Associate Degree

Name: _____

Major: _____

Date: _____

Student ID#: _____

To complete the associate breadth requirement, you must select courses that fulfill the unit requirements of the following areas:				ENG 35, 37, 38, 42A, 42B, 43C, 43D, 45, 46A, 46B, 49A, 52, 55A, 55B, 55C, 57, 61, 62A, 62C, 62D			
Area A: Communication in the English Language and Critical Thinking (9 units total)				FASHION 9, 10			
Complete one course in each category				FREN 2, 3, 4, 5			
A1 Oral Communication (3 units)	Completed	In Progress	Planned	GERM 2			
COM 1A, 6, 8				HIST 6C, 7			
A2 Written Communication (3 units)	Completed	In Progress	Planned	HUM/CIVIL 3			
ENG 1A, 2A				ITAL 2			
A3 Critical Thinking (3 units)	Completed	In Progress	Planned	JAPAN 2, 3, 4			
COMM 5				PHILO 6, 40, 45, 50			
ENG 1B, 1D				RELGN 14A, 14B			
PHILO 30				SL 2, 3, 4			
Area B: Physical Universe and Its Life Forms (10 units minimum)				SPAN 2, 3, 3A, 4, 4A, 5, 6			
Complete one course from B1, B2, and B4. One B1 or B2 course must include a laboratory component (*).				Area D: Social Sciences (9 units total)	Completed	In Progress	Planned
B1 Physical Science (3 units)	Completed	In Progress	Planned	Complete a minimum of 9 semester units are required with courses in at least two disciplines			
ASTRO 1, 1L				AJ 21			
CHEM 1A*, 1B*, 3A*, 10, 12A*, 12B*				AGBUS 12			
GEOG 1, 1L*				ANTHR 1, 6, 10			
GEOL 1A*, 1B*, 2, 5, 5A*, 15, 15A*, 16, 16A*				BIOL/PSYCH 30			
PHSCI 1				BUS 8, 26, 32			
PHYSC 2A*, 4A*, 10*				COM ST 7, 11			
PLANT 14				ECE 21			
B2 Life Science (3 units)	Completed	In Progress	Planned	ECON 3, 5			
AH SC 10, 10L*				GEOG 2, 3, 10			
ANTHR 2, 2L*				HIST 2A, 2B, 4A, 4B, 6A, 6C, 17A, 17B, 27, 30A, 30B, 31, 34, 37			
BIOL 1*, 2*, 3*, 10*, 11*, 14*, 23*, 31*, 32*, 33*				LAW 16			
N R 2				PETHEORY 41			
PLANT 10, 10L*				POLSC 1, 2, 3, 4, 5, 6			
B3 Laboratory Activity (3 units)	Completed	In Progress	Planned	PSYCH 1, 3, 4, 30/BIOL 30			
Take one course from B1 or B2 with a laboratory, indicated by an asterisk (*).				SOCIO 1A, 1B, 5, 27, 33			
B4 Mathematics/Quantitative Reasoning (3 units)	Completed	In Progress	Planned	Area E: Lifelong Understanding and Self-Development (3 units)	Completed	In Progress	Planned
BUS 67				ANTHR/HUM 4			
COM ST 14				BIOL/PSYCH 30			
LAW 26				COM ST 3			
MATH 1, 2, 3, 4, 5, 12, 12EX, 13, 17A, 20, 38A, 38B, 39				COUN 8			
PSYCH 2				ECE 21, 26			
Area C: Arts and Humanities (9 units total)				FCS 2, 6, 19/ H S 19, 23			
Select one course from each area, and an additional course of either area C1 or C2				H ED 1, 30			
C1 Arts (3 units)	Completed	In Progress	Planned	H S/FCS 19			
ART 1A, 1B, 1C, 2, 3, 6, 7A, 12, 20A, 33A, 40A, 64A				HUM/ANTHR 4			
COM ST 2				PEACTIV 1D, 12A			
DANCE 29, 32				PSYCH 3, 30/BIOL 30			
DRAMA 10, 16A, 16B, 31				US History, Constitution and American Ideals (6 units)	Completed	In Progress	Planned
ENG 30				HIST 17A			
FASHION 8				AND HIST 27 OR HIST 30B OR HIST 34 OR POLSC 1 OR POLSC 4			
HORT 4				OR	Completed	In Progress	Planned
ID 8				POLSC 1			
MUSIC 1, 4, 7, 8				AND HIST 17A OR HIST 17B OR HIST 27 OR HIST 30A OR HIST 30B OR HIST 31 OR HIST 34			
PHOTO 1A				Area F: Ethnic Studies (3 units)	Completed	In Progress	Planned
C2 Humanities (3 units)	Completed	In Progress	Planned	HIST 30A, 31, 34			
CHIN 2, 3, 4				Additional Major Prerequisites	Completed	In Progress	Planned
CIVIL/HUM 3				CSP 26A (Java Prog.) OR CSP 31A (C++ Prog.)			
CUL ART 16				PHYSC 4B, 4C			
DANCE 32							

