Physics

Warriors on the Way to STEM

WOW2STEM

Fresno City 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 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 Fresno City College**	**Major Course Requirements at Stanislaus State**
MATH 5B (co-requisite)	PHYS 4A (Phys. for Scientists & Engr.)	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) Electives (6 units)
PHYS 4A & MATH 5B	PHYS 4B (Phys. for Scientists & Engr.)	
PHYS 4A & MATH 5B	PHYS 4C (Phys. for Scientists & Engr.)	
High school chemistry with lab component, or CHEM 101P or CHEM 3A & MATH 103	CHEM 1A (Gen. Chemistry)	
CHEM 1A	CHEM 1B (Gen. Chemistry & Qualitative Analysis)	
MATH 4B	MATH 5A (Mathematical Analysis 1)	
MATH 5A	MATH 5B (Mathematical Analysis 2)	
MATH 5B	MATH 6 (Mathematical Analysis 3)	
MATH 103 & MATH 4A	CSCI 40 (Programming, Concepts & Methodology I)	

Physics B.S. Roadmap		
Prerequisites to Lower-Division Courses	**Lower-Division Courses at Fresno City College**	**Major Course Requirements at Stanislaus State**
MATH 5B (co-requisite)	PHYS 4A (Physics for Scientists & Engr.)	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)
PHYS 4A & MATH 5B	PHYS 4B (Physics for Scientists & Engr.)	
PHYS 4A & MATH 5B	PHYS 4C (Physics for Scientists & Engr.)	
High school chemistry with lab component, or CHEM 101P or CHEM 3A and MATH 103	CHEM 1A (Gen. Chemistry)	
CHEM 1A	CHEM 1B (Gen. Chemistry & Qualitative Analysis)	
MATH 4B	MATH 5A (Mathematical Analysis 1)	
MATH 5A	MATH 5B (Mathematical Analysis 2)	
MATH 5B	MATH 6 (Mathematical Analysis 3)	

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