# Physics

## Warriors on the Way to STEM
## WOW2STEM

### *Columbia College*

**Majoring in Physics at CSU Stanislaus 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**

## 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 CSU Stanislaus.**

**For more information you may contact:**
**Iqbal Atwal, Transfer Specialist**
**209.667.3164**
**iatwal@csustan.edu**
**www.csustan.edu/STEM-success**

*Joseph is a Junior at CSU Stanislaus. 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

| Lower-Division Courses at Columbia College | Major Course Requirements at CSU Stanislaus |
|---|---|
| PHYCS 5A (Intro Phys. 1: Calc. Level) | |
| PHYCS 5B (Intro Phys. 2: Calc. Level) | PHYS 3010 - Introduction to Mathematics Physics I (3 units) |
| PHYCS 5C (Physics 3: Calculus Level) | PHYS 3100 - Classical Mechanics (4 units) |
| CHEM 2A (Gen. Chemistry 1) & CHEM 2AL (Gen. Chemistry 1 Lab) | PHYS 3320 - Electricity and Magnetism I (3 units) |
| CHEM 2B (Gen. Chemistry II) & CHEM 2BL (Gen. Chemistry II Lab) | PHYS 3520 - Modern Physics and Quantum Mechanics (3 units) |
| MATH 18A (Calculus 1) | PHYS 4102 - Experimental Physics (2 units) |
| MATH 18B (Calculus 2) | PHYS 4250 - Analog and Digital Electronics (4 units) |
| MATH 18C (Calculus 3) | Electives (6 units) |
| CCTPG 22 (Programming Concepts and Methodology 1) | |

# Physics B.S. Roadmap

| Lower-Division Courses at Columbia College | Major Course Requirements at CSU Stanislaus |
|---|---|
| PHYCS 5A (Intro Phys. 1: Calc. Level) | PHYS 3010 - Introduction to Mathematics Physics I (3 units) |
| PHYCS 5B (Intro Phys. 2: Calc. Level) | PHYS 3100 - Classical Mechanics (4 units) |
| PHYCS 5C (Physics 3: Calculus Level) | PHYS 3320 - Electricity and Magnetism I (3 units) |
| CHEM 2A (Gen. Chemistry 1) & CHEM 2AL (Gen. Chemistry 1 Lab) | PHYS 3520 - Modern Physics and Quantum Mechanics (3 units) |
| CHEM 2B (Gen. Chemistry II) & CHEM 2BL (Gen. Chemistry II Lab) | PHYS 4102 - Experimental Physics (2 units) |
| MATH 18A (Calculus 1) | PHYS 4250 - Analog and Digital Electronics (4 units) |
| MATH 18B (Calculus 2) | PHYS 4510 - Quantum Mechanics (3 units) |
| MATH 18C (Calculus 3) | PHYS 4530 - Thermal and Statistical Physics (4 units) |
| | Electives (9 units) |

***AS-T Degree in Physics offered at Columbia College***

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

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