

## PHYSICAL SCIENCE

### PSCI 1 Principles of Physical Science

**Units:** 3.0 **Hours:** 3.0 Lecture

**Transferable:** CSU, UC; CSU-GE:B1, IGETC:5A; GAV-GE:B1

An introduction to the physical sciences for the non-science major. Attention is focused on fundamental laws of nature, their development and relation to the physical world. **ADVISORY:** Mathematics 205 and eligible for English 250 and 260.

### PSCI 2 Introduction to Meteorology

**Units:** 3.0 **Hours:** 3.0 Lecture

**Transferable:** CSU, UC; CSU-GE:B1, IGETC:5A; GAV-GE:B1

An introductory course in Meteorology that is both descriptive and analytical on the physical principles affecting the earth's weather. Topics covered include the nature of the atmosphere, solar energy, heat, temperature, pressure, stability, moisture, wind, storms, severe weather and forecasting. The course introduces climatology as a scientific study and will look at the earth's climatic history, current research in climate modeling and the possibility of global climate change. **ADVISORY:** MATH 205.

### PSCI 3 Ocean Studies

**Units:** 3.0 **Hours:** 3.0 Lecture

**Transferable:** CSU

Online Ocean Studies is a an introductory oceanography course provided by the American Meteorological Society to undergraduates. The course is prepared by an experienced team of oceanographers and science educators. AMS Ocean Studies is produced in cooperation with the National Oceanographic and Atmospheric Administration. AMS Ocean Studies examines the world ocean from an Earth system perspective. The course emphasizes (1) the flow and transformations of water and energy into and out of the ocean, (2) the physical and chemical properties of seawater, (3) ocean circulation, (4) marine life and its adaptations, (5) interactions between the ocean and the other components of the Earth system (i.e., hydrosphere, atmosphere, geosphere, and biosphere), and (6) the human/ societal impacts on and response to those Earth system interactions. AMS Ocean Studies is modeled after the highly successful AMS Weather Studies course. **ADVISORY:** MATH 205.

## PHYSICS

### PHYS 1 Introduction to Physics

**Units:** 4.0 **Hours:** 3.0 Lecture and 3.0 Laboratory

**Transferable:** CSU, UC; CSU-GE:B1, B3, IGETC:5A; GAV-GE:B1, B3

This course is an introduction to the fundamental physical principles that control the world around us. Students will explore the fundamental principles of physics, their historical development, their application to everyday phenomena, and their impact upon political, social, and environmental issues. Laboratory exercises will explore the everyday world. **ADVISORY:** Mathematics 205.

### PHYS 2A General Physics

**Units:** 4.0 **Hours:** 3.0 Lecture and 3.0 Laboratory

**Transferable:** CSU, UC; CSU-GE:B1, B3, IGETC:5A; GAV-GE:B1, B3; CAN:PHYS2, PHYS SEQ A

An introduction to the principles of physics using algebra and trigonometry. Topics include kinematics in one and two dimensions, vectors, equilibrium and non-equilibrium applications of Newton's Laws, work and energy, momentum, rotational kinematics and dynamics, simple harmonic motion, elasticity, thermal physics, thermodynamics, and waves. **PREREQUISITE:** MATH 8A or MATH 9. **ADVISORY:** Eligible for English 250 and English 260.

### PHYS 2B General Physics

**Units:** 4.0 **Hours:** 3.0 Lecture and 3.0 Laboratory

**Transferable:** CSU, UC; CSU-GE:B1, B3, IGETC:5A; GAV-GE:B1, B3; CAN:PHYS4, PHYS SEQ A

An introduction to the principles of physics using algebra and trigonometry. Topics include electricity and magnetism, light and optics, modern physics, and an introduction to relativity. **PREREQUISITE:** Physics 2A **ADVISORY:** Eligible for English 250 and English 260

### PHYS 4A Physics for Scientists and Engineers - Mechanics/ Fluids/Wave

**Units:** 4.0 **Hours:** 4.0 Lecture and 2.0 Laboratory

**Transferable:** CSU, UC; CSU-GE:B1, B3, IGETC:5A; GAV-GE:B1, B3; CAN:PHYS SEQ

An introduction to the principles of physics using calculus. Topics include kinematics in one, two and three dimensions, vectors, equilibrium and non-equilibrium applications of Newton's Laws, work and energy, momentum, systems of particles, rotational kinematics and dynamics, simple harmonic motion, elasticity, and waves. **PREREQUISITE:** Physics 2A and Mathematics 1A **ADVISORY:** Eligible for English 250 and English 260.

### PHYS 4B Physics for Sci/Engr--Electromagnetism

**Units:** 4.0 **Hours:** 4.0 Lecture and 2.0 Laboratory

**Transferable:** CSU, UC; CSU-GE:B1, B3, IGETC:5A; GAV-GE:B1, B3; CAN:PHYS SEQ

Fundamental principles of electricity and electromagnetism. Electric and magnetic fields, AC/ DC circuits, Maxwell's equations, and electromagnetic waves. Students gain experience in the application of computers in science. **PREREQUISITE:** Physics 4A **ADVISORY:** Mathematics 1B

### PHYS 4C Physics for Sci/Engr--Thermodynamics/Optics/ Modern Physics

**Units:** 4.0 **Hours:** 3.0 Lecture and 3.0 Laboratory

**Transferable:** CSU, UC; CSU-GE:B1, B3, IGETC:5A; GAV-GE:B1, B3; CAN:PHYS SEQ

An introduction to the principles of physics using calculus. Topics include light, optics, interference, diffraction, thermal energy, the Laws of Thermodynamics, the kinetic theory of gases, and an introduction to relativity and modern physics. **PREREQUISITE:** Physics 4A.

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**Physiology: see Biological Sciences**

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## POLITICAL SCIENCE

### POLS 1 Introduction to American Government

**Units:** 3.0 **Hours:** 3.0 Lecture

**Transferable:** CSU, UC; CSU-GE:D8, IGETC:4H, 7A; GAV-GE:D1, D2; CAN:GOVT2

Explores the development of American political institutions and their utilization in dealing with issues arising at the international, national and state levels. Emphasis is placed on those problems which have defined our federal system of government. California government and appropriate state institutions will be included as a vital part of our federal system of government. **ADVISORY:** Eligible for English 250 and English 260.

### POLS 3 Introduction to Comparative Politics

**Units:** 3.0 **Hours:** 3.0 Lecture

**Transferable:** CSU, UC; CSU-GE:D8, IGETC:4H; GAV-GE:D2, F

Comparative survey of political institutions and processes around the globe. Selected nations may include, but are not restricted to: the United Kingdom, France, Germany, Japan, Russia, India, Nigeria, and Mexico. **ADVISORY:** Eligible for English 250 and English 260.

### POLS 4 Introduction to International Relations

**Units:** 3.0 **Hours:** 3.0 Lecture

**Transferable:** CSU, UC; CSU-GE:D8, IGETC:4H; GAV-GE:D2, F

This course provides an introduction to key contemporary international problems and the means to analyze them. Major parts of the course cover such topics as war and peace, foreign policymaking, the international economy, and future trends in world politics.

General Education Requirements, pages 48-56