

APE 536 Adapted Physical Education**Units:** .5 OR 1.0 **Hours:** 1.5 OR 3.0 Laboratory

An individualized program of adapted physical education activities designed to meet the needs of students with physical disabilities. Develops an appreciation of physical activity as a regular planned contribution to one's overall fitness. May be repeated as necessary based on measurable progress as documented in the student's educational contract. This is a pass/no pass course.

APE 538 Adapted Cardiovascular Conditioning and Training**Units:** .5 OR 1.0 **Hours:** 1.5 OR 3.0 Laboratory

An individualized program of adapted exercises in weight training, stretching and cardiovascular conditioning for those individuals who have been disabled through stroke, cardiovascular accident, arthritis, multiple sclerosis, or other condition. May be repeated as necessary based on measurable progress as documented in the student's educational contract. This is a pass/no pass course.

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. **PREREQUISITE:** MATH 205, or MATH 430, or the equivalent, with a grade of "C" or better. **ADVISORY:** English 250 and English 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; CSU-GE:B1, IGETC:5A, GAV-GE:B1

Online Ocean Studies is 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, 5C, 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 I**Units:** 4.0 **Hours:** 3.0 Lecture and 3.0 Laboratory**Transferable:** CSU, UC; CSU-GE:B1, B3, IGETC:5A, 5C, GAV-GE:B1, B3

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. (C-ID: PHYS 105), (C-ID: PHYS 100S: Phys 2A + Phys 2B) **PREREQUISITE:** MATH 8A **ADVISORY:** Eligible for English 250 and English 260.

PHYS 2B General Physics II**Units:** 4.0 **Hours:** 3.0 Lecture and 3.0 Laboratory**Transferable:** CSU, UC; CSU-GE:B1, B3, IGETC:5A, 5C, GAV-GE:B1, B3

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. (C-ID: PHYS 110) (C-ID: PHYS 100S: Phys 2A + Phys 2B) **PREREQUISITE:** Physics 2A with a grade of 'C' or better. **ADVISORY:** Eligible for English 250 and English 260

PHYS 4A Physics for Scientists and Engineers - Mechanics**Units:** 4.0 **Hours:** 3.0 Lecture and 3.0 Laboratory**Transferable:** CSU, UC; CSU-GE:B1, B3, IGETC:5A, 5C, GAV-GE:B1, B3

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. (C-ID: PHYS 205) (C-ID: PHYS 200S: Phys 4A + Phys 4B + Phys 4C) **PREREQUISITE:** Completion of Mathematics 1A with a grade of 'C' or better, AND completion of PHYS 2A with a grade of 'C' or better OR High School Physics with a grade of 'B' or better.

PHYS 4B Physics for Scientists and Engineers - Electricity and Magnetism**Units:** 4.0 **Hours:** 3.0 Lecture and 3.0 Laboratory**Transferable:** CSU, UC; CSU-GE:B1, B3, IGETC:5A, 5C, GAV-GE:B1, B3

An introduction to the principles of physics using calculus. Topics include charge, electric fields, Gauss' Law, electric potential, capacitance, current and resistance, circuit analysis, magnetic fields, Ampere's Law, Faraday's Law, and electromagnetic waves. (C-ID: PHYS 210) (C-ID: PHYS 200S: Phys 4A + Phys 4B + Phys 4C) **PREREQUISITE:** Completion of MATH 1B with a grade of 'C' or better, AND completion of PHYS 4A with a grade of 'C' or better.

PHYS 4C Physics for Scientists and Engineers - Heat, Optics, Modern Physics**Units:** 4.0 **Hours:** 3.0 Lecture and 3.0 Laboratory**Transferable:** CSU, UC; CSU-GE:B1, B3, IGETC:5A, 5C, GAV-GE:B1, B3

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. (C-ID: PHYS 215) (C-ID: PHYS 200S: Phys 4A + Phys 4B + Phys 4C) **PREREQUISITE:** Completion of MATH 1B with a grade of 'C' or better, AND completion of PHYS 4A with a grade of 'C' or better.

Physiology: see Biological Sciences**POLITICAL SCIENCE****POLS 1 Introduction to American Government****Units:** 3.0 **Hours:** 3.0 Lecture**Transferable:** CSU, UC; CSU-GE:D, IGETC:4H, 7A, GAV-GE:D1, D2, F

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. (C-ID: POLS 110) **ADVISORY:** Eligible for English 250 and English 260.