Physics PHYS

Division of Science and Allied Health
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NOTE: The University of California has a credit restriction on certain combinations of physics courses. See your counselor for detailed information on the current UC Articulation Agreement.

PHYS 310 Conceptual Physics 3 Units

Prerequisite: None
Advisory: Math 34 (Pre-algebra) with a grade of "C" or better, or placement through the assessment process.
General Education: AA/AS Area IV; CSU Area B1; IGETC Area 5A
Course Transferable to UC/CSU
Hours: 54 hours LEC
This course presents the physical laws that tie together the diverse phenomena of nature. This course uses a descriptive approach, with limited use of basic algebra, to increase the students' understanding of the everyday physical world.

PHYS 350 General Physics 4 Units

Prerequisite: High School Trigonometry or MATH 334 or MATH 335 with a grade of "C" or better.
General Education: AA/AS Area IV; CSU Area B1; CSU Area B3; IGETC Area 5A
Course Transferable to UC/CSU
Hours: 54 hours LEC; 54 hours LAB
This course is a non-calculus based survey of general physics. It is designed for biological science students, including those in pre-medical, pre-dental, optometry, agricultural, and forestry programs. Topics include kinematics, Newton's Laws, dynamics of rigid bodies, work and energy, momentum, rotational motion, fluids, and oscillatory motion.

PHYS 360 General Physics 4 Units

Prerequisite: PHYS 350 with a grade of "C" or better
General Education: AA/AS Area IV; CSU Area B1; CSU Area B3; IGETC Area 5A
Course Transferable to UC/CSU
Hours: 54 hours LEC; 54 hours LAB
This course is a non-calculus based survey of general physics. It is designed for biological science students, including those in pre-medical, pre-dental, optometry, agricultural, and forestry programs. Topics include electric charge, electric fields, AC and DC circuit theory, electromagnetism, optics, wave theory, and quantum physics.

PHYS 410 Mechanics of Solids and Fluids 5 Units

Prerequisite: MATH 400 with a grade of "C" or better
Corequisite: MATH 401
General Education: AA/AS Area IV; CSU Area B1; CSU Area B3; IGETC Area 5A
Course Transferable to UC/CSU
Hours: 55 hours LEC; 54 hours LAB ; 17 hours DIS
Topics covered include linear and rotational motion, Newton's laws, dynamics of rigid bodies, harmonic motion, and liquids. This course is for physics, mathematics, chemistry, architecture, and engineering majors.

PHYS 420 Electricity and Magnetism 5 Units

Prerequisite: MATH 401 and PHYS 410 with grades of "C" or better
General Education: AA/AS Area IV; CSU Area B1; CSU Area B3; IGETC Area 5A
Course Transferable to UC/CSU
Hours: 55 hours LEC; 54 hours LAB ; 17 hours DIS
This course presents an in-depth treatment of electricity and magnetism and stresses problem-solving. Topics covered include charge and electric force, electric fields, electrical potential, magnetism, electromagnetic induction, DC and AC circuit theory. This course is for physics, mathematics, chemistry, architecture, engineering, and computer science majors.

PHYS 430 Heat, Waves, Light and Modern Physics 5 Units

Prerequisite: PHYS 410 with a grade of "C" or better
Corequisite: MATH 402
General Education: AA/AS Area IV; CSU Area B1; CSU Area B3; IGETC Area 5A
Course Transferable to UC/CSU
Hours: 55 hours LEC; 54 hours LAB ; 17 hours DIS
Topics include thermodynamics, wave theory, light and sound, geometrical and physical optics (including lenses and mirrors), quantum physics and high-energy physics. This course is intended for physics, mathematics, chemistry, architecture and engineering majors.

PHYS 494 Topics in Physics .5-4 Units

Prerequisite: None
Course Transferable to UC/CSU; UC Transfer credit will be awarded only after the course has been evaluated by the enrolling UC campus. The units completed for this course cannot be counted toward the minimum 60 units required for admissions.
Hours: 54 hours LEC; 54 hours LAB
This course is designed to enable both science and non-science students to learn about recent developments in physics. Selected topics would not include those that are part of current course offerings. This course may be repeated for credit, providing there is no duplication of topics.

PHYS 495 Independent Studies in Physics 1-3 Units

Prerequisite: None
Course Transferable to UC/CSU; UC Transfer credit will be awarded only after the course has been evaluated by the enrolling UC campus. The units completed for this course cannot be counted toward the minimum 60 units required for admissions.
Hours: 54 hours LAB
See Independent Studies

PHYS 499 Experimental Offering in Physics .5-4 Units

Prerequisite: None
Course Transferable to UC/CSU; UC Transfer credit will be awarded only after the course has been evaluated by the enrolling UC campus. The units completed for this course cannot be counted toward the minimum 60 units required for admissions.
Hours: 54 hours LEC; 36 hours LAB
See Experimental Offerings