Physics

PHYS 100 Concepts In Physics
3.0 units
Acceptable for credit: Transfer to UC, CSU
Advisories: MATH 311 - Algebra 1 ; ENGL 101 - Freshman Composition: Exposition ; or ENGL 514 - Writing Skills 4
An overview of the major areas of physics. Emphasis is on concepts, applications, and the consequences for modern life. An historical perspective on the development of physical theory and its impact on civilization is explored. (Fall, Spring) (Letter Grade or Pass/No Pass)

PHYS 110 Introductory Physics
3.0 units
Acceptable for credit: Transfer CSU
Prerequisite: MATH 121 - Trigonometry ; or MATH 141 - Precalculus
An introduction to physics with emphasis on units, vectors and the definitions of physical variables. Tools and strategies necessary to be successful in PHYS 161 are covered. (Fall, Spring, Summer) (Letter Grade or Pass/No Pass)

PHYS 141 General Physics 1
4.0 units
Acceptable for credit: Transfer CSU
C-ID Course Number: PHYS 105
Prerequisite: MATH 141 - Precalculus ; or completion of or concurrent enrollment in MATH 121
The initial semester of a two-semester introduction to trig-based physics. Emphasizes the origin, nature, and application of fundamental concepts and principles. Required for most life-science and engineering-technology majors. Discusses motion, mechanics of particles and systems of particles, rigid, elastic and fluid systems, vibrations, wave motion, and sound. (Fall) (Letter Grade or Pass/No Pass)

PHYS 142 General Physics 2
4.0 units
Acceptable for credit: *Transfer to CSU, limited to UC/see counselor
C-ID Course Number: PHYS 110
Prerequisite: PHYS 141 - General Physics 1
A continuation of PHYS 141. Discusses heat, thermodynamics, electricity, magnetism, geometric and physical optics, atomic and nuclear physics. (Spring) (Letter Grade or Pass/No Pass)

PHYS 161 Engineering Physics 1
4.0 units
Acceptable for credit: Transfer CSU
C-ID Course Number: PHYS 215
Prerequisite: PHYS 161 - Engineering Physics 1 ; and MATH 182 - Calculus 2
A continuation of PHYS 161 which discusses temperature, heat, thermodynamics, simple harmonic and wave motion, sound, geometric and physical behavior of light, as well as topics in modern physics, which may include the special theory of relativity, and the quantum theory of atomic and nuclear systems. (Fall) (Letter Grade or Pass/No Pass)

PHYS 163 Engineering Physics 3
4.0 units
Acceptable for credit: Transfer CSU
C-ID Course Number: PHYS 210
Advisories: Completion of, or concurrent enrollment in MATH 183
Prerequisite: PHYS 161 - Engineering Physics 1 ; and MATH 182 - Calculus 2
A continuation of PHYS 161 which discusses electrostatic forces, fields and potentials, steady electric currents and circuits, magnetic forces and fields, induced electric and magnetic fields, electric and magnetic properties of continuous media, reactive circuits, and electromagnetic waves. (Fall) (Letter Grade or Pass/No Pass)

PHYS 189 Independent Projects
0.0 units
Acceptable for credit: Transfer CSU
Courses for students capable of independent work who demonstrate the need or desire for additional study beyond the regular curriculum. Enrollment allows students to pursue activities such as directed field experience, research, or development of skills and competencies under faculty advisement and supervision. Independent projects may be earned in most disciplines. Students wishing to enroll in Independent Projects should contact the appropriate instructor identified in the class schedule. If the project proposed is acceptable to that instructor, a contract will be developed. All contracts for these classes must be completed and submitted to the Records Office no later than the end of the second week of the semester. Students may enroll for any combination (unit value) of Independent Projects 189 and/or 389 for a total of four semesters in a specific discipline. Units are awarded depending upon satisfactory performance and the amount of time committed by the student to the course. Allowable units vary according to discipline, and are based on the following formula: 1 unit - 48 hours per semester 2 units - 96 hours per semester 3 units - 144 hours per semester (Letter Grade Only)