PHYSICS

Physics is a fundamental science. It is concerned with finding and using the rules that govern everything—from the smallest pieces of the atom to the various collections of atoms—molecules, balls, planets, stars, and more—that compose the myriad contents of the universe. Students majoring in physics will be rewarded on a personal level with a deep understanding of the world around us. On a professional level, physicists find a variety of employment opportunities, which are relatively free of ethnic and gender bias, pay well, reward creativity, and are just plain fun.

Students planning to transfer to a four-year institution and major in physics should consult with a counselor regarding the transfer process and lower division requirements.

Contact Information:

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- Physics 2.0 Associate in Science for Transfer Degree
- Physics Associate of Science Degree

PHYSIC 101 4 Units
Introductory Physics
Lecture: 54 contact hours
Lab: 54 contact hours
Prerequisite: Eligibility for college level English and Mathematics based on the SBVC Guided-Self Placement process.
This introductory, algebra-based, physics course is an exploration of the physical principles ranging from classical mechanics to modern physics, which shape our lives. Students will be better equipped to make connections between the concepts of physics and their everyday world. This class includes a hands-on laboratory to bridge the connection between theory and everyday life. This course also explores the connections between physics and other fields of science, technology, and society.
Associate Degree Applicable
Transfers to both UC/CSU

PHYSIC 151 4 Units
General Physics for the Life Sciences I
Lecture: 54 contact hours
Lab: 54 contact hours
Prerequisite: MATH 103 or eligibility for MATH 151 or higher based on the SBVC Guided-Self Placement process and eligibility for college level English based on the SBVC Guided-Self Placement process.
Departmental Recommendation: PHYSIC 101
This is the first course in a two-semester physics sequence designed primarily for students in biology, pharmacology, pre-medicine, physical therapy, and allied health programs. Topics include mechanics, waves, fluids, and thermodynamics. The needed concepts of calculus will be developed and used where appropriate.
Associate Degree Applicable
Transfers to both UC/CSU
C-ID: PHYS 105/100S

PHYSIC 152 4 Units
General Physics for the Life Sciences II
Lecture: 54 contact hours
Lab: 54 contact hours
Prerequisite: PHYSIC 151
This is the second course in a two-semester physics sequence designed primarily for students in biology, pharmacology, pre-medicine, physical therapy, and allied health programs. Topics include electricity, magnetism, optics, and modern physics. The needed concepts of calculus will be developed and used where appropriate.
Associate Degree Applicable
Transfers to both UC/CSU
C-ID: PHYS 110/100S

PHYSIC 202 4 Units
Physics I
Lecture: 54 contact hours
Lab: 54 contact hours
Prerequisite: ENGL C1000 or ENGL C1000H and MATH C2210 and PHYSIC 101
Corequisite: MATH C2210 - The department highly recommends completing MATH C2210 prior to enrollment in PHYSIC 202.
This is a calculus based physics course covering mechanics and oscillations. This course is designed to satisfy the lower division physics requirement for majors in physics, engineering, astronomy, chemistry, geology, computer science and mathematics.
Associate Degree Applicable
Transfers to both UC/CSU
C-ID: PHYS 205/200S

PHYSIC 203 4 Units
Physics II
Lecture: 54 contact hours
Lab: 54 contact hours
Prerequisite/Corequisite: MATH C2220
Prerequisite: PHYSIC 202
This is a calculus based physics course covering electricity, magnetism, and waves. This course is designed to satisfy the lower division physics requirement for majors in physics, engineering, astronomy, chemistry, geology, computer science and mathematics.
Associate Degree Applicable
Transfers to both UC/CSU
C-ID: PHYS 210/200S

PHYSIC 204 4 Units
Physics III
Lecture: 54 contact hours
Lab: 54 contact hours
Prerequisite/Corequisite: MATH C2220
Prerequisite: PHYSIC 202
Departmental Recommendation: MATH 252
This is a calculus based physics course covering thermodynamics, fluids, optics, and modern physics. This course is designed to satisfy the lower division physics requirement for majors in physics, engineering, astronomy, chemistry, geology, computer science and mathematics.
Associate Degree Applicable
Transfers to both UC/CSU
C-ID: PHYS 215/200S

PHYSIC 210 4 Units
Modern Physics
Lecture: 54 contact hours
Lab: 54 contact hours
Prerequisite: PHYSIC 203 and PHYSIC 204 and PHYSIC 151 and PHYSIC 152 and MATH C2220
This is a calculus-based physics course in modern physics. Topics include relativity, quantum mechanics, atoms, molecules, condensed matter, nuclear, and particle physics.
Associate Degree Applicable
Transfers to both UC/CSU

PHYSIC 222 1-3 Units
Independent Study in Physics
DIR: 54 contact hours
Prerequisite: PHYSIC 101
Departmental Recommendation: ENGL C1000 or ENGL C1000H
Students with previous course work in Physics may do assigned projects involving research and analysis of selected topics. The independent study is for students who are interested in furthering their knowledge of Physics. Prior to registration, a written contract must be prepared jointly by the instructor and the student.
Associate Degree Applicable
Transfers to CSU only