

# PHYSICS (PHYSIC) COURSES

## 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 is an introductory algebra based physics course. Emphasis is placed on developing an understanding of motion, forces, energy, momentum, waves, light, electricity, magnetism, and concepts of modern physics.

**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.

**Advisory:** 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. (Formerly PHYSIC 150B)

**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 101 or ENGL 101H and MATH 250 and PHYSIC 101

**Corequisite:** MATH 250. The department highly recommends completing MATH 250 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 251

**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 251

**Prerequisite:** PHYSIC 202

**Advisory:** 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 251

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

**Advisory:** ENGL 101 or ENGL 101H

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**