

# PHYSICS (PHYS)

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## PHYS-101 Fundamentals of Physical Science

### 4 Credits

**Lecture:** 3 hours per week, **Lab:** 2 hours per week

**Offering:** Fall and Spring Only, All Years

This course is designed for the non-science major interested in an overview of the physical sciences and in developing an appreciation for the nature of the physical universe. It includes physics, chemistry, astronomy, and geology and their relation to the world and universe in which we live.

**Corequisites:** PHYS-101L

## PHYS-103 Elementary Astronomy

### 4 Credits

**Lecture:** 3 hours per week, **Lab:** 2 hours per week

**Offering:** Fall, Spring, and Summer, All Years

This course is an introductory study of astronomy. Topics include the history of astronomy; the motions and physical properties of the sun, moon, and Earth; the electromagnetic spectrum; solar system planets, satellites, and minor bodies; stars; galaxies; evolution of the solar system; the universe; and cosmology.

**Corequisites:** PHYS-103L

## PHYS-111 General Physics I

### 4 Credits

**Lecture:** 3 hours per week, **Lab:** 2 hours per week

**Offering:** Fall and Spring Only, All Years

This course is the study of mechanics, sound, linear and rotational motion momentum, energy, vectors, elasticity, vibration, and mechanical wave motion.

**Prerequisites:** MATH-143 and MATH-144, or MATH-147, or an appropriate score on a placement test.

**Corequisites:** PHYS-111L

## PHYS-112 General Physics II

### 4 Credits

**Lecture:** 3 hours per week, **Lab:** 2 hours per week

**Offering:** Spring Only, All Years

This course is the study of electricity and magnetism, light, optics, and modern physics.

**Prerequisites:** PHYS-111 or PHYS-211

**Corequisites:** PHYS-112L

## PHYS-211 Engineering Physics I

### 5 Credits

**Lecture:** 4 hours per week, **Lab:** 3 hours per week

**Offering:** Fall and Spring Only, All Years

This course envelops the study of kinematics and dynamics, Newton's Laws, work and energy, rotational dynamics, linear and angular momentum, collisions, static equilibrium, oscillations, gravity, central forces, fluid dynamics, and sounds waves.

**Prerequisites:** MATH-147, or MATH-143 and MATH-144, or an appropriate score on a placement test.

**Corequisites:** PHYS-211L

**Pre/Corequisites:** MATH-170

## PHYS-212 Engineering Physics II

### 5 Credits

**Lecture:** 4 hours per week, **Lab:** 3 hours per week

**Offering:** Spring Only, All Years

This course is the study of heat and thermodynamics, electric and magnetic fields and potentials, DC and AC circuits, electromagnetic waves, and geometric and physical optics.

**Prerequisites:** MATH-170, PHYS-211

**Corequisites:** PHYS-212L

**Pre/Corequisites:** MATH-175