

# PHYSICS (PHYSICS)

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**PHYSICS 1050 Principles of Physics 5 Credits**

Mechanics, waves, fluid dynamics, heat, electricity, magnetism, light and optics. This course emphasizes the use of physics principles in analyzing physical systems.

**Components:** Laboratory, Discussion, Class

**GE:** Natural Science

**Prereqs/Coreqs:** P. MATH 15 or MATH 1530 or mathematics proficiency level of 15 or above

**PHYSICS 1350 Introductory Physics I 5 Credits**

Mechanics, thermodynamics, and wave properties for science and pre-professional students, including an introduction to experimental techniques and experiments. This course is the first semester of a two-semester sequence; students looking for a one-semester algebra-based physics course should take PHYSICS 1050.

**Components:** Discussion, Laboratory, Class

**GE:** Natural Science

**Prereqs/Coreqs:** P. MATH 1530 or MATH 2450 or math proficiency level of 30 or above

**PHYSICS 1450 Introductory Physics II 5 Credits**

A continuation of PHYSICS 1350 including topics and experiments in electricity and magnetism, optics, atomic physics, and nuclear physics.

**Components:** Discussion, Laboratory, Class

**Prereqs/Coreqs:** P. PHYSICS 1350

**PHYSICS 2240 General Physics I 4 Credits**

Calculus-based course in mechanics and wave properties for students of engineering, mathematics, and science, including an introduction to experimental techniques and experiments.

**Components:** Laboratory, Class

**GE:** Natural Science

**Prereqs/Coreqs:** P. MATH 2640 with a C- or better or GENENG 1500 with a C- or better

**PHYSICS 2340 General Physics II 4 Credits**

Electricity, magnetism, and optics for students of engineering, mathematics, and science, including an introduction to experimental techniques and experiments.

**Components:** Discussion, Laboratory, Class

**Prereqs/Coreqs:** P. PHYSICS 2240 with a "C-" or better; MATH 2740 with a "C-" or better

**PHYSICS 3140 Modern Physics 4 Credits**

An introduction to special relativity, kinetic theory, quantum physics, the Schrodinger equation in one and three dimensions, a brief introduction to nuclear physics, energy bands of crystalline solids, the physics of semiconductors and its application to semiconducting devices.

**Components:** Laboratory, Class, Discussion

**Prereqs/Coreqs:** P. PHYSICS 2340 with a "C-" or better; CHEMISTRY 1450 or 1240 C: MATH 3630

**PHYSICS 4940 Independent Study in Physics 1-4 Credits**

Study of special topics and/or developments of special projects having department approval.

**Components:** Independent Study