

# Physics - CPS (PHY)

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## PHY 1200. Physics 1. (3 Hours)

Offers the first semester of a two-semester introduction to algebra-based physics. Emphasizes the underlying concepts and principles of Newtonian physics and fluids. Introduces measurement, estimating, and Newtonian mechanics. Topics covered include kinematics, dynamics, translational motion, vectors, circular motion, gravitation, work, energy, power, momentum, and rotational motion. Further topics covered include static equilibrium, elasticity and fracture, fluids, vibrations, waves, and sound.

**Corequisite(s):** PHY 1201

**Attribute(s):** NUpath Natural/Designed World

## PHY 1201. Lab for PHY 1200. (1 Hour)

Accompanies PHY 1200. Covers topics from the course through various experiments.

**Corequisite(s):** PHY 1200

## PHY 1990. Elective. (1-4 Hours)

Offers elective credit for courses taken at other academic institutions. May be repeated without limit.

## PHY 2200. Physics 2. (3 Hours)

Offers the second semester of a two-semester introduction to algebra-based physics. Emphasizes the underlying concepts and principles of electricity and thermodynamics. Introduces temperature, the kinetic theory of matter, heat, the laws of thermodynamics, electricity, and Coulomb's law. Topics covered include electric charge and fields, electric potential, electric current circuits, electric capacitance, magnetic forces and fields, and electromagnetic induction. Further topics covered include alternating current circuits, magnetism, electromagnetic waves, the nature of light, and geometric optics.

**Prerequisite(s):** PHY 1200 with a minimum grade of D- ; PHY 1201 with a minimum grade of D-

**Corequisite(s):** PHY 2201

**Attribute(s):** NUpath Natural/Designed World

## PHY 2201. Lab for PHY 2200. (1 Hour)

Accompanies PHY 2200. Covers topics from the course through various experiments.

**Prerequisite(s):** PHY 1200 with a minimum grade of D- ; PHY 1201 with a minimum grade of D-

**Corequisite(s):** PHY 2200

## PHY 2990. Elective. (1-4 Hours)

Offers elective credit for courses taken at other academic institutions. May be repeated without limit.

## PHY 3990. Elective. (1-4 Hours)

Offers elective credit for courses taken at other academic institutions. May be repeated without limit.

## PHY 4990. Elective. (1-4 Hours)

Offers elective credit for courses taken at other academic institutions. May be repeated without limit.

## PHY 4992. Directed Study. (1-4 Hours)

Offers independent work under the direction of members of the department on a chosen topic.

## PHY 4993. Independent Study. (1-4 Hours)

Offers independent work under the direction of members of the department on a chosen topic.

## PHY 4994. Internship. (1-4 Hours)

Provides students with an opportunity for internship work.

**Attribute(s):** NUpath Integration Experience

## PHY 4995. Practicum. (1-4 Hours)

Provides eligible students with an opportunity for practical experience.

## PHY 4996. Experiential Education Directed Study. (1-4 Hours)

Draws upon the student's approved experiential activity and integrates it with study in the academic major.

**Attribute(s):** NUpath Integration Experience

## PHY 6962. Elective. (1-4 Hours)

Offers elective credit for courses taken at other academic institutions. May be repeated without limit.