

Physics

The WVC Physics Department is committed to offering comprehensive courses that promote understanding of matter and energy in all their forms. Courses range from those designed for the non-science major to preengineering prerequisites & science major transfer students. The department offers a variety of courses designed to meet the general educational, preprofessional and overall academic goals of WVC students.

Physics Classes

PHYS& 100: Physics for Non-Science Majors

Physics for nonscience majors. Study of the basic fundamentals of physics, including mechanics, heat, light, sound, electricity, magnetism and modern physics.

Credits 5

Weekly Contact Hours 5

Meets Degree Requirements For

Natural Science

PHYS& 114: General Physics I W/Lab

Study of the fundamental principles and applications of mechanics, including vectors, static equilibrium, linear and rotational motion, Newton's laws, work, energy, and momentum. Includes laboratory.

Credits 5

Weekly Contact Hours 6

Meets Degree Requirements For

Natural Science with Lab

Prerequisites

[MATH 99](#) or equivalent or Instructor Permission

PHYS& 115: General Physics II W/Lab

Study of the basic principles and applications of fluids, harmonic motion and waves, thermodynamics, and geometric optics. Includes laboratory.

Credits 5

Weekly Contact Hours 6

Meets Degree Requirements For

Natural Science with Lab

Prerequisites

PHYS& 114 or equivalent or Instructor Permission

PHYS& 116: General Physics III W/Lab

Study of the basic principles and applications of electricity and magnetism and an introduction to modern physics. Includes laboratory.

Credits 5

Weekly Contact Hours 6

Meets Degree Requirements For

Natural Science with Lab

Prerequisites

PHYS& 114 or equivalent or Instructor Permission

PHYS& 221: Engineering Physics I

The study of kinematics, statics, rotational motion and collisions. Topics include one- and two-dimensional motion for point masses and rigid bodies, conservation laws for momentum and energy, and equilibrium conditions. Laboratory included.

Credits 5

Weekly Contact Hours 6

Meets Degree Requirements For

Natural Science with Lab

Prerequisites

One year high school physics, MATH&151 or concurrent enrollment.

PHYS& 222: Engineering Physics II

The study of simple harmonic motion, waves, temperature and heat. Topics include the Ideal Gas Laws, the Laws of Thermodynamics, and thermodynamic systems. Electrostatics through Gauss' law covered. Laboratory included.

Credits 5

Weekly Contact Hours 6

Meets Degree Requirements For

Natural Science with Lab

Prerequisites

One year high school physics, PHYS&221, MATH&152 or concurrent enrollment.

PHYS& 223: Engineering Physics III

The study of electrical and magnetic phenomena, starting with electric potential and continuing on into optics and quantum mechanics. Topics include electrostatics, magnetostatics, DC and AC circuit theory, and geometric ray optics. Laboratory included.

Credits 5

Weekly Contact Hours 6

Meets Degree Requirements For

Natural Science with Lab

Prerequisites

One year of High School physics, [PHYS& 222](#), [MATH& 153](#) or concurrent enrollment