

PHY - Physics

Courses

PHY 110 Health Physics

3 Credits. 2 Lecture Hours. 3 Lab Hours.

A course on concepts and principles of physics that are applied in health technologies. Topics include: math for physics, the kinematics and dynamics of linear motion, machines, fluid mechanics, temperature, electricity and electrical safety, waves, and light.
Prerequisites: MAT 096 (minimum grade C) or MAT 105 or appropriate placement

PHY 115 Aviation Maintenance Physics

4 Credits. 3 Lecture Hours. 3 Lab Hours.

A course on concepts and principles of physics applied in aviation technologies. Topics include: kinematics and dynamics of one- and two-dimensional motion, work, power, conservation laws, machines, fluid mechanics, and thermodynamics.

Prerequisites: MAT 122 or appropriate placement

PHY 150 Introduction to Physics

3 Credits. 2 Lecture Hours. 2 Lab Hours.

A course on fundamentals of physics. Topics include: laboratory procedures, the controlled experiment, methods of measurement, data collection and analysis techniques, and interpreting experimental results.

Prerequisites: MAT 124 or appropriate placement

PHY 151 Physics 1: Algebra and Trigonometry-Based

4 Credits. 3 Lecture Hours. 3 Lab Hours.

A course on concepts and principles of algebra-and-trigonometry-based physics. Topics include: kinematics, dynamics, statics, heat, and thermodynamics.

Prerequisites: PHY 150, or MAT 125 or appropriate math placement

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PHY 152 Physics 2: Algebra and Trigonometry-Based

4 Credits. 3 Lecture Hours. 3 Lab Hours.

A continuation of PHY 151. Topics include: waves, electromagnetic radiation, geometrical optics, physical optics, photometry, basic forces in physics, AC and DC circuits, quantum mechanics, and atomic and nuclear physics.

Prerequisites: PHY 151

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PHY 201 Physics 1: Calculus-Based

5 Credits. 4 Lecture Hours. 2 Lab Hours.

A course on concepts and principles of calculus-based physics. Topics include: the kinematics and dynamics of linear and rotational motion, gravity, oscillatory motion, waves, and fluid mechanics.

Prerequisites: MAT 126 or MAT 152 or MAT 153 or appropriate placement

Corequisites: MAT 251

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PHY 202 Physics 2: Calculus-Based

5 Credits. 4 Lecture Hours. 2 Lab Hours.

A continuation of PHY 201. Topics include: thermodynamics, electric and magnetic fields, dc and ac circuit analysis, electromagnetic radiation, optics including interference and diffraction, and modern physics.

Prerequisites: PHY 201 and MAT 251

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