

PHYSICS (PHYS)

PHYS 101 Principles of Physics I 3 sem. hrs.

Study of motion, acceleration, and forces in rectangular and curvilinear coordinates. Gravitational forces, Work, energy, and momentum. Simple harmonic motion, wave motion, and sound. Heat-the kinetic theory of matter, the behavior of gases, calorimetry and change of state. Three hours of lecture and one three-hour lab per week. Offered every fall semester.

Prerequisites: MATH 155, 156.

PHYS 101L Principles of Physics I: Lab 1 sem. hr.

Study of motion, acceleration, and forces in rectangular and curvilinear coordinates. Gravitational forces, work, energy, and momentum. Simple harmonic motion, wave motion, and sound. Heat and the kinetic theory of matter, the behavior of gases, calorimetry, and change of state.

PHYS 102 Principles of Physics II 3 sem. hrs.

Introduction to electricity and magnetism-electrostatics, current electricity (Ohm's Law, Kirchoff's Laws, D.C. and A.C. circuits). Light-reflection, refraction, interference, polarization. Selected aspects of modern physics-relativity, quantum mechanics. Three hours of lecture and one three-hour lab per week. Offered every spring semester.

Prerequisite: PHYS 101 with grade of C- or better, MATH 155, 156.

PHYS 102L Principles of Physics II: Lab 1 sem. hr.

Physics 102 lab to accompany course. This course covers labs in thermodynamics, sound, electricity, circuits, magnetism, and electrical and mechanical equivalence.

PHYS 201 Physics with Calculus I 3 sem. hrs.

Covers same material as Physics 101 but at a higher level of sophistication since a basic knowledge of calculus is assumed. Three hours of lecture and one three-hour lab per week.

Corequisite: Calculus I.

PHYS 201L Physics with Calculus I: Lab 1 sem. hr.

Study of motion, acceleration, and forces in rectangular and curvilinear coordinates. Gravitational forces, work, energy, and momentum. Simple harmonic motion, wave motion, and sound. Heat and the kinetic theory of matter, the behavior of gases, calorimetry, and change of state.

PHYS 202 Physics with Calculus II 3 sem. hrs.

Covers same material as Physics 102 but at a higher level of sophistication since a basic knowledge of calculus is assumed. Three hours of lecture and one three-hour lab per week.

Corequisite: Calculus II.

PHYS 202L Physics with Calculus II: Lab 1 sem. hr.

Physics 202 lab to accompany course. This course covers labs in thermodynamics, sound, electricity, circuits, magnetism, and electrical and mechanical equivalence.

PHYS 301 Sem in 20th Century Physics 3 sem. hrs.

This course includes a history of the breakthroughs in physics, such as special and general relativity and the various aspects of quantum mechanics, and descriptions of these theories. Students will engage in self-designed library and Internet research on various topics in modern physics.

Prerequisite: PHYS 101-102.