

PHYSICS (PHYS)

PHYS 020 General Physics 1

Hours: 4 Lecture/Discussion
3 Lab

5unit(s)

This is the first semester of a two-semester, introductory, non-calculus based physics course. This course includes laboratory experiments in addition to lectures. It is required for premedical, pre dental, prepharmacy, and occasionally science and math students. Topics include kinematics, statics and dynamics of particles and rigid bodies, simple harmonic motion, and thermal physics. (C-ID PHYS105)

Prerequisites: MATH 154 or equivalent college course with a minimum grade of C.

PHYS 021 General Physics 2

Hours: 4 Lecture/Discussion
3 Lab

5unit(s)

This is the second semester of a two-semester introductory non-calculus based physics course. This course includes laboratory experiments, in addition to lectures. It is required for premedical, pre dental, prepharmacy, and occasionally science and math students. Topics included are electricity and magnetism, optics, modern and nuclear physics. (C-ID PHYS 110)

Prerequisites: PHYS 020 or equivalent college course with a minimum grade of C.

PHYS 055 Physics 1: Mechanics & Waves

Hours: 3 Lecture/Discussion
3 Lab

4unit(s)

This is the first semester of a three semester introductory calculus-based physics course. It is a fundamental treatment of the general principles of physics for those majoring in engineering and physics. Topics included are statics, kinematics, dynamics of particles and rigid bodies, fluids, mechanical waves, simple harmonic motion and kinetic theory of gases. (C-ID PHYS205)

Prerequisites: MATH 066 and MATH 065 or equivalent college course with a minimum grade of C.

PHYS 056 Physics 2: E&M and Heat

Hours: 3 Lecture/Discussion
3 Lab

4unit(s)

This is the second semester of a three-semester introductory calculus-based physics course. It is a fundamental treatment of the general principles of Physics for those majoring in physics and engineering. Topics included are electricity, magnetism, the laws of thermodynamics, heat engines, and entropy.

Prerequisites: PHYS 055 and MATH 067 or MATH 077 or equivalent college course with a minimum grade of C.

PHYS 057 Physics 3: Modern Physics

Hours: 4 Lecture/Discussion
3 Lab

5unit(s)

This is the third semester of a three-semester introductory calculus-based physics course. It is a fundamental treatment of the general principles of Physics for those majoring in physics and engineering. Topics included are Geometric and Wave optics, Special Relativity, Lorentz Transformation, Quantum Theory of Atoms, Fission and Fusion, and the Evolution of the Universe. (C-ID PHYS215)

Prerequisites: PHYS 056 and MATH 067 or equivalent college course with a minimum grade of C.