

PHYSICS (PHYS)

◆PHYS 1401

College Physics I

CRT HRS:4 LEC HRS:3 LAB HRS:3 OTH HRS:0

This course covers fundamental principles of physics, using algebra and trigonometry; the principles and applications of classical mechanics and thermodynamics, including harmonic motion, mechanical waves and sound, physical systems, Newton's Laws of Motion and gravitation and other fundamental forces; with emphasis on problem solving. Laboratory activities will reinforce concepts presented in PHYS 1401 lecture.

Prerequisite: TSI complete in Reading and completion of MATH 1414 and MATH 1316 with a "C" or better; or completion of MATH 2412 with a grade of "C" or better; or equivalent.

◆PHYS 1402

College Physics II

CRT HRS:4 LEC HRS:3 LAB HRS:3 OTH HRS:0

This course covers fundamental principles of physics, using algebra and trigonometry; the principles and applications of electricity and magnetism, including circuits, electrostatics, electromagnetism, waves, sound, light, optics, and modern physics topics; with emphasis on problem solving. Laboratory activities will reinforce concepts presented in PHYS 1402 lecture.

Prerequisite: PHYS 1401 with a grade of "C" or better.

◆PHYS 1403

Stars and Galaxies

CRT HRS:4 LEC HRS:3 LAB HRS:3 OTH HRS:0

This course is the study of stars, galaxies, and the universe outside our solar system. This course covers modern astronomical topics including: spectroscopy; telescopes and other astronomical instrumentation; stellar properties, formation and evolution; large scale structure of the universe; and theories on the origin of the universe.

Prerequisite: TSI complete in Reading and in Math or equivalent.

◆PHYS 1404

Solar System

CRT HRS:4 LEC HRS:3 LAB HRS:3 OTH HRS:0

Study of the sun and its solar system, including its origin. This course covers classical and modern topics including: naked eye observation; classical views of the Solar System; planetary exploration tools (spacecraft and landers); origins of the Solar System; planetary geology; planetary atmospheres; moons; comets; asteroids; meteorites; extra-solar planets; and the search for life beyond the earth and Solar System.

Prerequisite: PHYS 1403.

◆PHYS 1415

Physical Science I

CRT HRS:4 LEC HRS:3 LAB HRS:3 OTH HRS:0

This course, designed for non-science majors, surveys topics from physics, chemistry, geology, astronomy, and meteorology. These topics are covered in two courses; PHYS 1415 will concentrate on surveying astronomy, meteorology and physics.

Prerequisite: TSI complete in Reading and in Math; or equivalent.

◆PHYS 1417

Physical Science II

CRT HRS:4 LEC HRS:3 LAB HRS:3 OTH HRS:0

This course, designed for non-science majors, surveys topics from physics, chemistry, geology, astronomy, and meteorology. This course will survey topics in chemistry, geology and physics not discussed in PHYS 1415.

Prerequisite: PHYS 1415 with a grade of "C" or better.

◆PHYS 2425

University Physics I

CRT HRS:4 LEC HRS:3 LAB HRS:3 OTH HRS:0

This course covers fundamental principles of physics, using calculus, for science, computer science, and engineering majors; the principles and applications of classical mechanics, including harmonic motion, physical systems and thermodynamics; and emphasis on problem solving. Basic laboratory experiments supporting theoretical principles presented in PHYS 2425 will be performed. Experimental design, data collection and analysis, and preparation of laboratory reports will be emphasized.

Prerequisite: MATH 2413 with a grade of "C" or better.

◆PHYS 2426

University Physics II

CRT HRS:4 LEC HRS:3 LAB HRS:3 OTH HRS:0

This course covers principles of physics for science, computer science, and engineering majors, using calculus, involving the principles of electricity and magnetism, including circuits, electromagnetism, waves, sound, light, and optics. Laboratory experiments supporting theoretical principles presented in PHYS 2426 will be performed. Experimental design, data collection and analysis, and preparation of laboratory reports will be emphasized.

Prerequisite: PHYS 2425 and MATH 2414 with a grade of "C" or better.