

PHYSICS AND PHYSICAL SCIENCE (PHYS)

PHYS 1020 Astronomy

4.0 credit hours

75.0 Classroom Hours = 45.0 Lecture Hours + 30.0 Lab Hours

An elementary course designed for non-science majors. Topics include the nature and motions of the Earth, Moon, planets, Sun, stars, galaxies, as well as other deep sky objects. A historical overview of manned and unmanned space flights is included. Must take with PHYS 1021 Astronomy Lab. Fee: \$10

PHYS 1021 Astronomy Lab

0.0 credit hours

0 Classroom Hours

Lab for Astronomy.

PHYS 1100 Physical Science

4.0 credit hours

75.0 Classroom Hours = 45.0 Lecture Hours + 30.0 Lab Hours

A survey course in physical science with emphasis on scientific processes and problem solving. Areas of study will include selected topics in physics, chemistry, astronomy, geology, and meteorology. A scheduled laboratory will supplement classroom activities. Note: A background in high school algebra or MATH 1010 is desirable. Fee \$15 if course is taken on-ground.

PHYS 1101 Physical Science Lab

0.0 credit hours

0 Classroom Hours

Lab for Physical Science.

PHYS 1150 Descriptive Physics

4.0 credit hours

75.0 Classroom Hours = 45.0 Lecture Hours + 30.0 Lab Hours

This is a survey of physics at a conceptual (non-mathematical) level. The course covers motion, fluids, heat, sound, electricity, magnetism, and light. Emphasis will be placed on using concepts to analyze physical problems.

PHYS 1151 Descriptive Physics Lab

0.0 credit hours

0 Classroom Hours

Lab for Descriptive Physics.

PHYS 1300 Intro to Meteorology

4.0 credit hours

75.0 Classroom Hours = 45.0 Lecture Hours + 30.0 Lab Hours

The basic principles of meteorology will be covered, including radiation, temperature, moisture, atmospheric stability, pressure and winds, clouds and precipitation processes, air masses, fronts, and severe weather.

PHYS 1301 Intro to Meteorology Lab

0.0 credit hours

0 Classroom Hours

Lab for Introduction to Meteorology.

PHYS 1350 Severe Weather

3.0 credit hours

45.0 Classroom Hours = 45.0 Lecture Hours

A study of severe and unusual weather events, including blizzards, severe thunderstorms, tornadoes, floods, hurricanes, drought, and wildfires.

PHYS 1410 Elementary General Physics I

5.0 credit hours

90.0 Classroom Hours = 60.0 Lecture Hours + 30.0 Lab Hours

Detailed algebra and trigonometry study of one and two dimensional motion. Topics will include kinematics, Newton's Laws, energy, momentum, and rotational motion. Additional topics from the areas of oscillations and waves, fluids, and thermal physics may also be covered. Prerequisite/Corequisite: MATH 1250 or instructor permission. Fee \$15.

PHYS 1411 Elementary General Physics I Lab

0.0 credit hours

0 Classroom Hours

Lab for General Physics I.

PHYS 1420 Elementary General Physics II

5.0 credit hours

90.0 Classroom Hours = 60.0 Lecture Hours + 30.0 Lab Hours

Detailed algebra and trigonometry continuation of Elementary General Physics I. Topics covered will include electricity, magnetism, and optics. Additional topics from the areas of oscillations and waves, fluids, thermal physics, and modern physics may also be covered. Prerequisite: PHYS 1410. Fee \$15.

PHYS 1421 Elementary General Physics II Lab

0.0 credit hours

0 Classroom Hours

Lab for General Physics II.

PHYS 2110 General Physics I with Calculus

5.0 credit hours

90.0 Classroom Hours = 60.0 Lecture Hours + 30.0 Lab Hours

Detailed calculus-based study of one and two dimensional motion. Topics will include kinematics, Newton's Laws, energy, momentum, and rotational motion. Additional topics from the areas of oscillations and waves, fluids, and thermal physics may also be covered. Corequisite/Prerequisite: MATH 1600

PHYS 2111 General Physics I with Calculus Lab

0.0 credit hours

0 Classroom Hours

Lab to be taken with General Physics I with Calculus.

PHYS 2120 General Physics II with Calculus

5.0 credit hours

90.0 Classroom Hours = 60.0 Lecture Hours + 30.0 Lab Hours

Detailed calculus-based continuation of General Physics I. Topics covered will include electricity, magnetism, and optics. Additional topics from the areas of oscillations and waves, fluids, thermal physics, and modern physics may also be covered. Prerequisite: PHYS 2110

PHYS 2121 General Physics II with Calculus Lab

0.0 credit hours

0 Classroom Hours

Lab to be taken with General Physics II with Calculus.

PHYS 2410 Gen Physics I Calc Supplement

1.0 credit hours

15.0 Classroom Hours = 15.0 Lecture Hours

This course, together with materials from PHYS 1410, is equivalent to the traditional first semester course in calculus-based physics. Derivations and problems which involve the use of calculus or the more intense application of algebra and trigonometry than is customary in PHYS 1410 constitutes the subject matter of this course. The topics covered correspond to those in a first semester calculus-based physics course. Prerequisites: PHYS 1410 with at least a grade of C and MATH 1600.

PHYS 2420 Gen Physics II Calc Supplement

1.0 credit hours

15.0 Classroom Hours = 15.0 Lecture Hours

This course, together with materials from PHYS 1420, is equivalent to the traditional second semester course in calculus-based physics. Derivations and problems which involve the use of calculus or the more intense application algebra and trigonometry than is customary in PHYS 1420 constitute the subject matter of this course. The topics covered correspond to those in a second semester calculus-based physics course. Prerequisites: PHYS 1420 with at least a grade of C and MATH 1600.

PHYS 2980 Directed Study

3.0 credit hours

45.0 Classroom Hours = 45.0 Lecture Hours

Directed Study

PHYS 2990 Special Topics

3.0 credit hours

45.0 Classroom Hours = 45.0 Lecture Hours

Special topic course description upon request.