

PHYS and PHSC Courses (Physics and Physical Science)

The first number is course level (1 = freshman, 2 = sophomore, 3 = junior, 4 = senior, 5 = graduate).

The middle two numbers are identifiers specific to the course

The last number is the number of credit hours

PHYS Courses (Physics)

PHYS 1003 Elements of Physics

3 credits: 3 hours lecture

NOTE: A General Education course for the non-science major

A survey of the basic concepts of physics including mechanics, light, energy, relativity, and atomic structure.

PHYS 1021 Elements of Physics Laboratory

1 credit: 2 hours laboratory

Corequisite: PHYS 1003

A laboratory course to supplement PHYS 1003.

PHYS 2203 College Physics I

A.C.T.S. Equivalent Course # PHYS 2014 when combined with PHYS 2231 College and University Physics I Laboratory

3 credits: 3 hours lecture

Prerequisite: MATH 1033 or MATH 1175

A study of mechanics, heat, sound, energy and momentum relying heavily on the student's understanding of algebra and trigonometry.

PHYS 2213 College Physics II

A.C.T.S. Equivalent Course # PHYS 2024 when combined with PHYS 2241 College and University Physics II Laboratory

3 credits: 3 hours lecture

Prerequisite: PHYS 2203

A study of electricity, magnetism, optics and modern physics relying heavily on the student's understanding of the concepts developed in PHYS 2203.

PHYS 2231 College and University Physics I Laboratory

A.C.T.S. Equivalent Course # PHYS 2014 when combined with PHYS 2203 College and University Physics I

1 credit: 3 hours laboratory

Corequisite: PHYS 2203 or PHYS 2313

A laboratory course that supplements General and University Physics. Experiments are related to this course.

PHYS 2241 College and University Physics II Laboratory

A.C.T.S. Equivalent Course # PHYS 2024 when combined with PHYS 2213 College and University Physics II

1 credit: 3 hours laboratory

Corequisite: PHYS 2213 or PHYS 2323

A laboratory course that supplements General and University Physics. Experiments are related to this course.

PHYS 2313 University Physics I

A.C.T.S. Equivalent Course # PHYS 2034 when combined with PHYS 2231 College and University Physics I Laboratory

3 credits: 3 hours lecture

Corequisite: MATH 2255

A study of mechanics, heat, sound, energy and momentum relying heavily on the student's understanding of basic math including algebra, trigonometry and calculus.

PHYS 2323 University Physics II

A.C.T.S. Equivalent Course # PHYS 2044 when combined with PHYS 2241 College and University Physics II Laboratory

3 credits: 3 hours lecture

Prerequisite: PHYS 2313

A study of electricity, magnetism, optics and modern physics relying heavily on the student's understanding of basic math including algebra, trigonometry, and calculus.

PHYS 2354 Radiation Physics

4 credits: 3 hours lecture, 3 hours laboratory

Natural radioactivity and fundamental particles. Disintegration, fission, and fusion of nuclei. Theory and use of radiation detection instruments.

PHYS 3011 University Physics III Laboratory

1 credit: 3 hours laboratory

Corequisite: PHYS 3013

A laboratory course that supplements University Physics III. Experiments are related to the topics covered in the lecture course.

PHYS 3013 University Physics III

3 credits: 3 hours lecture

Prerequisite: PHYS 2323

A study of fluids, physical optics, thermodynamics, kinetic theory, and an introduction to quantum mechanics.

PHYS 3423 Computational Physics

3 credits: 3 hours lecture

Prerequisite: PHYS 2213 or PHYS 2323 and MATH 2255

An introduction to programming languages and numerical methods used in solving various problems in physics, engineering, and the sciences.

PHYS 3404 Modern Physics

4 credits: 3 hours lecture, 2 hours laboratory

Prerequisites: MATH 3495 and PHYS 2213 or PHYS 2323

The phenomena and theories of atomic, nuclear, and solid state physics. Relativity and the quantum theory.

PHYS 3444 Optics

4 credits: 3 hours lecture, 3 hours laboratory

Prerequisites: PHYS 2241 and PHYS 2213 or PHYS 2323

Light, wave motion, dispersion, interference, diffraction, and spectra.

PHYS 3504 Introduction to Electronics

4 credits: 3 hours lecture, 3 hours laboratory

Prerequisite: PHYS 2213 or PHYS 2323

An introduction to the fundamentals of DC and AC circuits.

PHYS 4603 Mechanics

3 credits: 3 hours lecture

Prerequisites: MATH 2264 and PHYS 2303 or PHYS 2313

Applied physics and mathematics using the vector approach. Analysis of problems in statics, kinematics, and dynamics.

PHSC Courses (Physical Science)

PHSC 2203 Physical Science

3 credits: 3 hours lecture

Corequisite: ENGL 1013

Basic concepts of physics, chemistry, and earth science. This course is designed for the General Education program

PHSC 2251 Physical Science Laboratory

1 credit: 2 hours laboratory

Corequisite: PHSC 2203

Basic studies of chemistry, physics, and earth science, designed to illustrate and complement concepts discussed in PHSC 2203.