

PHYSICS (PHYS)**101 Introductory Physics I 4 credit hours**

Offered fall semester. Three hours lecture and three hours laboratory a week. Fee: \$75.00.

This course is the first of a two semester sequence that is a non-calculus introduction to physics. The topics covered include the fundamentals of kinematics and dynamics, work and energy, momentum, equilibrium, fluids, vibrations and sound, heat, and thermodynamics. This course is recommended for liberal arts, pre-professional, and general studies students.

Prerequisite: Minimum high school GPA of 3.0 or appropriate assessment scores and Mathematics 119.

102 Introductory Physics II 4 credit hours

Offered spring semester using alternative instructional delivery methods. Three hours lecture and three hours laboratory a week. Fee: \$75.00.

This course is a continuation of Physics 101. The topics covered include electricity and magnetism, electromagnetic waves and optics, topics from modern physics, and nuclear physics. This course is recommended for liberal arts, pre-professional and general studies students.

Prerequisite: Physics 101.

103 Meteorology 4 credit hours

Offered spring semester. Three hours lecture and three hours laboratory a week.

This course presents a broad survey of the state of knowledge and problems of atmospheric science. Origin and structure of the atmosphere, meteorological observations, weather maps, forecasting, satellites, energetics, wind, general circulation, storms, severe weather, climate change, and air pollution are studied.

Prerequisite: Mathematics 90 and minimum high school GPA of 3.0 or appropriate assessment scores.

105 Physical Geology 4 credit hours

Three hours lecture and discussion and three hours laboratory a week. Fee: \$95.00.

A study of the principles of dynamical and structural geology. Provides a general survey of the rocks and minerals composing the earth, the movement within the earth, and the surface features of the earth and the agents that form them. The laboratory provides practical exercises stressing familiarization with rocks and minerals, the use of geologic maps, and field experience.

Prerequisite: A grade of "C" or better in Mathematics 90 and minimum high school GPA of 3.0 or appropriate assessment scores.

106 Introductory Astronomy 4 credit hours

Three hours lecture and three hours laboratory a week.

A descriptive course intended to familiarize students with various celestial bodies and to provide an understanding of the structure and the operating principles of the universe. As part of the laboratory sessions, students will be taught to distinguish planets and stars, identify the constellations, and use a star map. The course is designed for students who need a laboratory science to complete their curriculum as well as for students who wish a science elective.

Prerequisite: Mathematics 90 and minimum high school GPA of 3.0 or appropriate assessment scores.

109 Geography of Environmental Systems 4 credit hours

Three hours lecture and three hours laboratory a week. Fee: \$75.00.

This course provides an introduction to physical geography, a natural science allied with sciences such as geology, climatology, meteorology,

oceanography, hydrology botany and agronomy. The geographic perspective is unique in that it integrates not only the individual systems that have commonly been associated with a single discipline, but also the interaction of these systems within a framework we call Earth System Science. The major goal of this class is to provide a fundamental understanding of the physical environment we live in. In doing so, the course will provide the basis for comprehending modern environmental issues, including those affected by human activities.

Prerequisite: Mathematics 90 and English 92

130 Inquiries in Physical Science I 4 credit hours

Offered fall and spring semesters. Three hours lecture and three hours laboratory a week. Fee: \$75.00.

This course provides an introduction to the fundamental concepts and basic scientific reasoning skills essential to the sciences. Laboratory experiments and observations help provide the basis on which students construct knowledge and increase their abilities in scientific reasoning. The topics to be included are the fundamentals of physics and chemistry.

Prerequisite: Mathematics 90 and minimum high school GPA of 3.0 or appropriate assessment scores.

132 Inquiries in Physical Science II 4 credit hours

Offered spring semester. Three hours lecture and three hours laboratory a week. Fee: \$75.00.

This course provides an introduction to the fundamental concepts and basic scientific reasoning skills essential to the sciences. Laboratory experiments and observations help provide the basis on which students construct knowledge and increase their abilities in scientific reasoning. The topics to be included are the fundamentals of earth science and space science and their relationships to living systems.

Prerequisite: Physics 130.

201 General Physics I 4 credit hours

Offered fall semester. Three hours lecture and three hours laboratory a week. Fee: \$75.00.

The first of a two-semester sequence that is a calculus based introduction to physics. The course is designed primarily for science and engineering majors. The topics to be studied include mechanics, work and energy, vibration and wave motion, and heat and thermodynamics.

Prerequisite: Minimum high school GPA of 3.0 or appropriate assessment scores and Mathematics 201.

202 General Physics II 4 credit hours

Offered spring semester using alternative instructional delivery methods. Three hours lecture and three hours laboratory a week. Fee: \$75.00.

A continuation of Physics 201 covering electricity, magnetism, electromagnetic waves, semiconductor theory, and optics. A necessary course for engineers and science students.

Prerequisite: Physics 201.

Prerequisite or Corequisite: Mathematics 202.

297 Field Studies in Biology and Geology (Biological Science 297) 4 credit hours

Consult with instructor prior to registration. Fee: To be established based on location of field studies.

An interdisciplinary study of ecosystems in their natural settings. Emphasis will be placed on plant communities and key animal populations, geology, climate, and the influence of humans as they are related to one another. Studies, which will include lectures and laboratories, will be conducted in the field where specimens will be collected and catalogued. Course may be repeated one time for credit. Course may be taken again as audit status, but all fees and tuition will apply.

*Prerequisite: Biological Science 101 or 103 or 107 or Physics 105.
Instructor consent required.*

299 Special Problems in Physical Science **1-4 credit hours**
Fee: \$75.00.

Study projects under the direct supervision of the instructor. Library and laboratory research on selected problems. May be repeated for credit.

Prerequisite: Physics 101, 201, 211, or consent of instructor.