# PHYSICAL SCIENCE (PHSC)

## PHSC 101 - PHYSICAL GEOGRAPHY I
Earth materials, structure and landforms; interaction between human beings and landscapes in the context of natural resources and human activity.
Credits: 3
Attributes: Natural Science
Course Notes: Satisfies general education physical science requirement.

## PHSC 103 - GLOBAL CLIMATE CHANGE
Application of basic principles of science to atmospheric chemistry and climate change. Principles and topics covered include: atoms and molecules, what energy is and why it is conserved, alternative energy, absorption of light, the difference between climate change and the ozone hole, and possible solutions to environmental problems. Lecture and optional laboratory. Appropriate for non-science majors with little or no science background; education students, or for intended science majors wishing to review elementary physical scientific principles. Meets General Education requirements for laboratory physical science (if laboratory taken; otherwise meets physical science lecture course requirement). Not for majors credit in the sciences.
Credits: 3
Attributes: Natural Science

## PHSC 104 - SEVERE AND UNUSUAL WEATHER
This course will focus on the meteorological processes that lead to severe and unusual weather events and patterns. This course will examine thunderstorms, tornadoes, hurricanes, flash floods, drought and winter storms. Whenever possible, real-time weather data will be incorporated and severe weather events that occur in the United States during the course of our study will be examined. The societal impact of severe and unusual weather will also be studied.
Credits: 3
Attributes: Natural Science

## PHSC 105 - INTRODUCTION TO ENVIRONMENTAL SCIENCE
A study of the basic principles of geology, chemistry, biology and ecology behind important environmental issues that include pollution, biodiversity, conservation and sustainability. Special emphasis will be placed on the unique challenges posed by urban environments. Discussions will include social issues such as environmental philosophy, economics, ethics and policy.
Credits: 3
Attributes: Natural Science

## PHSC 106 - THE SCIENCE OF WATER
This course will use the topic of water to explore concepts in the physical sciences such as fundamental principles of physics, chemistry and physical geography. It will also look at human interactions with the aquatic world and environmental issues such as water pollution and management. Students will be provided with a basic scientific literacy, allowing them to understand the way scientists communicate and present information.
Credits: 3
Attributes: Natural Science
Course Notes: Natural Science.

## PHSC 107 - HOW THE WORLD WORKS
This course provides an introduction to the basic principles and concepts of physics as it relates to the world around us and how it works. It will deal with mechanics, heat, sound, matter, fluids, gases, electromagnetism, circuits, optics, atomic and nuclear physics. For example, it will explain the connection with the blue color of the sky and the red sunset. Laboratory investigations will allow students to explore the fundamental properties of the physical world, including matter, energy and electromagnetism.
Credits: 3
Attributes: Natural Science
Course Notes: Open to freshmen., Not for science major credit.

## PHSC 108 - BIG BANG, BLACK HOLES, NO MATH
This course is designed to guide students through the story of our universe and its 14 billion year history, including the theory known as the Big Bang. Students will gain an understanding of how the universe evolved from a tiny bit of space to a place with black holes, human life, dark matter and more, all without relying on complicated mathematics. Instead, the story of the scientific discoveries which lead to our current day understanding of the universe will be told from a conceptual viewpoint.
Credits: 1,3
Attributes: Natural Science
Course Notes: Not for science major credit.