

SCIENCE (SCI)

SCI 110 Environmental Science

4 Class Hours, 4 Quarter Credit Hours

This course will focus on man's interaction with his environment. It will cover current issues like global warming, human population growth, and pollution.

SCI 300 Public Health by Numbers

4 Class Hours, 4 Quarter Credit Hours

In this course, students will use multiple data sources to quantify public health problems and learn about the concepts, topics and institutions that shape the health system. In this journey students will explore topics such as environmental health, the determinants of health, preparedness, national and international health systems and institutions, and will interpret the magnitude of population health issues based on data.

SCI 304 Development of Western Science

4 Class Hours, 4 Quarter Credit Hours

This course centers on the interaction of science, scientists, technology and society over the past five hundred years, primarily focusing on the development of Western science. The scientific method will be examined utilizing selected case studies. Underlying principles and methodologies of science will be illustrated by comparing and contrasting both the successes and failures of science. Factors affecting the acceptance and use of science and related technologies will be examined.

SCI 307 Understanding Science Through Photography

4 Class Hours, 4 Quarter Credit Hours

This course integrates photography and science. Students will demonstrate their understanding of science concepts through photography and written artifacts. A key to understanding concepts in science is the ability to recognize their applications in everyday use. Problem-solving and evaluating discussion board postings are also part of this course. Science concepts such as motion and forces are combined with physical elements of photography such as shutter speed, focal length, and aperture. Students will design and complete a capstone project that focuses on their area of study as it relates to science. Students are expected to have basic knowledge of digital images and have the ability to upload photos. Cameras are not provided by NEIT.

SCI 320 Understanding Flight

4 Class Hours, 4 Quarter Credit Hours

This course explores a variety of real-world examples of objects moving through the air. While not an applied math course, the concepts that help understand the flight of objects are explored. Freefall, gliding, ballistics, and powered flight will be explained and studied. Both the historical development of manned flight as well as examples of flight in nature as exemplified by both birds and seeds will be investigated.

SCI 330 Our History and Future in Space

4 Class Hours, 4 Quarter Credit Hours

A course investigating the history, current programs, and future of space exploration. Topics will focus on our solar system, the current search for water on Mars, and evidence of life on other planets and moons. Current events related to space exploration and Near-Earth Objects will be incorporated whenever possible. Weekly writing assignments pertaining to weekly reading assignments will be required.

SCI 333 Sports Performance Metrics

4 Class Hours, 4 Quarter Credit Hours

This introductory course is intended for any student with an interest in physical fitness, exercise or wellbeing. The course will focus on the foundations of exercise testing and training while exploring the various elements of an individual's fitness profile including strength, flexibility, power, balance, speed, agility, aerobic capacity, body composition and anthropometrics. The course will also help explain how each of those fitness parameters relates to a student's ability to play a sport or participate in a hobby such as hiking, running or gardening. Finally, the course will explore various exercise program variables and designs to maintain and improve health and human performance.

SCI 350 Introduction to Genetics and Evolution

4 Class Hours, 4 Quarter Credit Hours

No prior coursework in the subject is assumed. This course begins by looking at cells and what they are. Concepts such as mitosis and meiosis will be explored. What a gene is, how it functions, and how it may be mutated will be covered. The basic principles of genetics, including patterns of inheritance (Mendelian genetics) will be studied. Additional topics include the genetic basis of genotype and phenotype, natural selection, evolution, and speciation. Students will explore recombinant DNA and genetic engineering (genetically modified foods and livestock) and the future of genetics.

SCI 360 Wellness for Life

4 Class Hours, 4 Quarter Credit Hours

Lifestyle-related diseases are at epidemic proportions in this country. There is scientific evidence that links physical activity and positive habits to improved quality of life. This course will explore topics of health promotion, wellness, risk screening, and behavior change. Students will evaluate how lifestyle-related health problems can be impacted by positive lifestyle choices. Since optimal wellness goes beyond physical fitness and the absence of disease, students will examine the eight dimensions of wellness and design a personal wellness program to attain their health goals.