

SCIENCE (SCI) CPSO

Course numbers with the # symbol included (e.g. #400) have not been taught in the last 3 years.

SCI 412 - Introduction to Astronomy

Credits: 4

Through a variety of activities, this course provides the student with a basic background in astronomy which enhances appreciation of the universe and the technology used in our attempt to understand it. This course exposes the student to the real, measurable, and verifiable connections that exist between the universe and life on Earth. Readings, observations, discussions, and other activities will explicate that what goes on out there can and does have a real and measurable influence on what happens down here.

Attributes: Physical Science(Discovery); Phys Natural World (Gen Ed)

Equivalent(s): SCI 512G

Grade Mode: Letter Grading

SCI 470 - Physical Geography

Credits: 4

Physical Geography is the study of planet Earth. In this course, students examine the nature of the Earth's six spheres: the atmosphere (the layer of gases); hydrosphere (the water in oceans, streams, lakes, etc.); cryosphere (the ice in glaciers); geosphere (the solid earth), biosphere (life); and anthrosphere (humans and human activities). By investigating the processes operating within each sphere and how these spheres interact with each other to shape all aspects of our planet, students gain an understanding of how the Earth works and how landscape features have formed.

Attributes: Physical Science(Discovery); Phys Natural World (Gen Ed)

Equivalent(s): SCI 518G

Grade Mode: Letter Grading

SCI 480 - Introduction to Oceanography

Credits: 4

This course examines the ocean, including the processes that control its major features, the life within it, and its impact on earth processes. An ecological approach is used to integrate the geological, biological, chemical, and physical aspects of oceanography. Special emphasis is placed on the coastal environment.

Attributes: Physical Science(Discovery); Phys Natural World (Gen Ed)

Equivalent(s): SCI 520G

Mutual Exclusion: No credit for students who have taken ESCI 501.

Grade Mode: Letter Grading

SCI 490 - Human Biology

Credits: 4

This course is an introductory study of anatomy and physiology that provides a foundation in biological science and the structure and function of the human body. Topics explored include cellular biology and molecular composition, tissues, organs, and how the human body systems perform and adapt. The building of a relevant vocabulary and a foundation of facts and concepts provides the background needed for further understanding of developments in bioscience and biomedicine.

Attributes: Biological Science(Discovery); Phys Natural World (Gen Ed)

Equivalent(s): SCI 505G

Grade Mode: Letter Grading

SCI 502 - Nutrition and Health

Credits: 4

This course provides the student with a foundation in the science of human nutrition and metabolism. The research supporting direct and indirect links between nutrition and disease is introduced. Topics covered may include the biological functions and food sources of each nutrient; nutrition guidelines and standards; digestion and absorption of nutrients; nutrition throughout the lifecycle; food safety and technology; energy balance and weight management; eating disorders and disturbances; and physical activity.

Attributes: Biological Science(Discovery); Phys Natural World (Gen Ed)

Equivalent(s): SCI 502G

Grade Mode: Letter Grading

SCI 508 - Issues in Women's Health

Credits: 4

This course examines women's health and women's health care from biological, medical, historical, political, and social perspectives. It begins with the study of endocrinology and the physiological processes unique to women. Factors related to health care issues specific to women are examined. Societal and health care constraints, which hinder women from achieving their full health potential are also addressed. The course also presents information on women's health care practices, including the concept of self-care, and relates this to the development of educated consumerism in the health care industry.

Attributes: Biological Science(Discovery); Phys Natural World (Gen Ed)

Equivalent(s): SCI 508G

Grade Mode: Letter Grading

SCI 509 - Disease Prevention and Health Promotion

Credits: 4

This course is a survey of various diseases that have emerged as serious health problems on a global scale. Students examine the etiology, transmission, detection, treatment, and method of prevention of ancient and newer diseases that continue to pose health threats, including risks related to pandemic and endemic disease.

Attributes: Biological Science(Discovery); Phys Natural World (Gen Ed)

Equivalent(s): SCI 509G

Grade Mode: Letter Grading

SCI 528 - Natural History of Northern New England

Credits: 4

This course focuses on the evolutionary adaptations of plants and animals that allow them to survive and thrive through all of New England's seasons. Students are introduced to the origin and development of the diverse ecosystems of our region and their relationship to the resident and migratory wildlife of Northern New England. The effects of the Ice Age on northern New England's topography and on the rhythms of the animal and plant life cycles are investigated.

Attributes: Phys Natural World (Gen Ed)

Equivalent(s): SCI 528G

Grade Mode: Letter Grading

SCI 541 - Introduction to Environmental Science**Credits:** 4

An introductory survey of global environmental problems such as global warming, acid rain, nuclear waste storage, agricultural runoff, and heavy metal contamination. This course explores the interrelationship between the natural environment and the effects of human activity resulting in pollution of air, water, and land. A major focus of the course is critical examination of ecological, economic, and political aspects of pollution in a global context.

Attributes: Physical Science(Discovery); Phys Natural World (Gen Ed)**Equivalent(s):** SCI 541G**Grade Mode:** Letter Grading**SCI 544 - Special Topics: Lower Level****Credits:** 1-4

A study of current and variable topics in Science. Course content changes from term to term.

Repeat Rule: May be repeated up to unlimited times.**Equivalent(s):** SCI 544G**Grade Mode:** Letter Grading**SCI 550 - Wellness and the Human Body****Credits:** 4

This course examines the integration of the human body systems. Common pathologies that interfere with normal physiological function and quality of life are examined and evidence-based practices for disease prevention and wellness are addressed. Recommended: SCI 490.

Attributes: Biological Science(Discovery); Phys Natural World (Gen Ed)**Equivalent(s):** SCI 603G**Grade Mode:** Letter Grading**SCI 604 - Principles of Exercise Science****Credits:** 4

This is an applied course addressing exercise physiology and integrated kinesiology principles. Students will examine how the mind and body respond to various intensities and modalities of exercise as well as explore various methods of measuring physiological variables such as cardiovascular fitness, muscular strength and endurance, flexibility, and body composition. Topics include: energy systems, neuromuscular concepts, and functions of the cardiovascular and respiratory systems during rest and exercise. Students enrolled in this course are required to complete the college's risk waiver prior to participating in any physical activity.

Attributes: Biological Science(Discovery); Phys Natural World (Gen Ed)**Prerequisite(s):** SCI 490 with a minimum grade of D- or SCI 505G with a minimum grade of D-**Equivalent(s):** SCI 604G**Grade Mode:** Letter Grading**SCI 610 - Contemporary Issues in Personal and Global Health****Credits:** 4

This course explores current issues in health from a scientific lens. Students will examine diverse factors that influence the wellness-illness continuum related to a specific topic. Perspectives include the biological, sociocultural, behavioral, and public health implications, to these personal and global health challenges.

Attributes: Environment,TechSociety(Disc); Phys Natural World (Gen Ed);

Writing Intensive Course

Equivalent(s): SCI 610G**Grade Mode:** Letter Grading**SCI 615 - Fitness and Health****Credits:** 4

This course presents the concepts of physical activity and exercise that connect to our health and well-being. Students will study how exercise is a mechanism to improve fitness, control weight, cope with life stressors, and optimize mindset. Students will have the opportunity to explore how the body and mind respond to different types of physical activity and the resulting health improvements of physical activity recommendations. Health behaviors and tools that support physical activity as part of a holistic approach to wellness will be addressed.

Attributes: Phys Natural World (Gen Ed)**Equivalent(s):** SCI 615G**Grade Mode:** Letter Grading**SCI 644 - Special Topics: Upper Level****Credits:** 1-4

A study of current and variable topics in Science. Course content changes from term to term. It is expected that the student will have prior course work or experience in the subject area.

Repeat Rule: May be repeated up to unlimited times.**Equivalent(s):** SCI 644G**Grade Mode:** Letter Grading