

# NATURAL SCIENCES (NAT-SCI)

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## Courses

NAT-SCI 130 Physics of Sports Credits: 3

A course intended for liberal arts students focusing on the physics involved in different sports. Physical laws and technological developments that impact sports will be studied.

NAT-SCI 140 How Things Work Credits: 3

A course intended for liberal arts students focusing on the principles of operations, histories, and relationships of objects from our daily environment. The areas of investigation include mechanical and thermal objects, electromagnetism, light, special materials and nuclear energy.

**Co-requisites:** NAT-SCI 140L.

NAT-SCI 140L How Things Work Laboratory Credit: 1

Simple experiments based on everyday experiences are analyzed in terms of conceptual physics. The material includes elements of mechanics of a rigid body, elastic properties of matter, fluid dynamics, thermodynamics, electromagnetism, optics and modern physics.

**Co-requisites:** NAT-SCI 140.

NAT-SCI 150 Astronomy: Motions of the Cosmos Credits: 3

An introductory exploration of modern topics in astronomy with an emphasis on developing conceptual models for the fundamental laws of gravity and motion crucial to the formation of stars and planetary systems, the growth of black holes and galaxies, and the evolution of cosmic structure.

NAT-SCI 153L Introductory Astronomy Laboratory Credits: 2

An introductory exploration of astronomical phenomena and concepts through quantitative laboratory activities requiring data collection, analysis and interpretation. This course is open to students from all majors. Concurrent enrollment in either NAT-SCI 150 or NAT-SCI 155 is encouraged but not required.

NAT-SCI 155 Astronomy: Starlight and Star Stuff Credits: 3

An introductory exploration of modern topics in astronomy with an emphasis on developing conceptual models for the interactions between light and matter crucial to the life and death of stars, the analysis of starlight and interstellar chemistry, and the interpretation of cosmic history.

NAT-SCI 171 Physics For Future Presidents Credits: 3

A course intended for liberal arts students focusing on the physics they need to be informed citizens in a democracy. Energy, global warming, terrorism, and health are examples of the important topics examined from the perspective of how science should inform policy.

NAT-SCI 375P Nature Of Science Credits: 4

Selected topics from the natural sciences. Provides students fundamental principles and concepts of various physical and mathematical sciences. Lectures, demonstrations and discussions provide an integrated approach to the natural sciences.

NAT-SCI 425P Introduction To Quantitative Methods Credits: 3

Topics addressed are the scientific approach to study of behavior (goals of science, research terminology, variables, distributions, measures of central tendency, confidence intervals, use of research methods and ethics in research), experimental design (validity, reliability, design and sampling techniques), and interpretation of research results. Course includes in-class computer data entry and analysis. Recommended preparation: COMP-SCI 101 and MATH 110 or MATH 116.