

# SCIENCE (SC)

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## SC115 Science, Technology & Society (3 Credits)

Study the development, application, and principles of modern science. It will describe what science and technology is, how it is practiced, who practices it, how discoveries are made and accepted, and what the impact of science is on society. Important scientific theories and principles will be examined as well as modern problems and controversies facing science today, drawn from many fields of science.

## SC165 Science in Art (4 Credits)

This course explores how art, biology, and chemistry mutually illuminate the exploration and beauty of our surroundings. The course will cover examples, from various countries and time periods, of how humans have accomplished such exploration. The students will be encouraged to make their own personal connections between these ways of learning based on their backgrounds and cultural heritage. 3 hours lecture, 3 hours laboratory.

## SC350 Climate Change (4 Credits)

This introductory semester course uses online delivered data to develop climate in a systems approach. The paradigm of climate systems and sustainability will use critical thinking skills to frame the concepts of climate change and climate variability. Real time data will assess climate issues over the range of time and human involvement. 3 hours lecture, 3 hours laboratory.

## SC360 Environmental Sustainability (3 Credits)

Develop critical thinking skills and evaluate information about the impact that current "Western" lifestyles and population trends have on the attainment of a sustainable environment. Investigate the goods and services provided to humans by nature and the impacts of human activities on nature's ability to provide these benefits. Analyze specific environmental issues related to sustainability and reflect upon how and to what extent our individual and collective behaviors impact the problems. Explore possible solutions that can be employed, both personally and societally, including insights gained from the ways in which non-Western societies relate to one another and to the environment. Consider the ethical dilemmas generated by humans as consumers and the value of promoting social justice, respect for rights of humans, non-human organisms and the environment, and a commitment to action and care for others.

Prerequisite(s): BI109 or BI120.

## SC393 Coastal Geomorphology (4 Credits)

An introductory course that stresses the origin, processes and physiography of the coastal zone. Emphasis will be placed on a systems approach to issues facing the coastal zone by applying skills and techniques from other allied sciences. Local areas will serve as resources for the course in which one of the final goals will be a model based on time, structure and process. Required at the end of the course will be an original manuscript that uses the theme of stewardship for society and the coastal zone.

Prerequisite(s): Two semesters of science courses.

## SC405 Earth Science (4 Credits)

Traditional topics in earth science including minerals and rocks; geologic time and the age and origin of the Earth; plate tectonics; mountains and volcanoes; the Earth's interior; the hydrosphere, atmosphere, and biosphere. 3 hours lecture, 3 hours laboratory.

Prerequisite(s): BI109, CH112, PH112, and any two 200/300- level science course required for the B.S. Natural Sciences degree.

## SC433 Oceanography (4 Credits)

Study of physical oceanography, including dynamics of ocean currents, waves, tides, and thermoclines; physical properties of ocean water; and effects of geological plate tectonics, including volcanic eruptions, coastal dynamics, ocean-atmosphere interactions, and stewardship. 3 hours lecture, 3 hours laboratory.

Prerequisite(s): Two semesters of basic science courses.