# **ENVIRONMENTAL SCIENCES (ENV-SCI)**

# Courses

ENV-SCI 110L Understanding the Earth Laboratory Credits: 2 Laboratory and field demonstration and exercises in environmental science. Weekly exercises or field trips. ENV-SCI 110L - MOTR PHYS 110LES: Essent. Physical Sciences w/Lab



ENV-SCI 110R Understanding the Earth: Introduction to Environmental Science and Laboratory Credits: 3 This introductory course surveys the processes that shape our planet. Topics include: plate tectonics and mountain-building, rivers and oceans, atmospheric circulation, weather and climate, and the amazingly complex relationships between life on Earth and the physical environment. ENV-SCI 110R - MOTR PHYS 110ES: Essentials in Physical Sciences



# ENV-SCI 210 Issues in Environmental Science Credits: 3

Explores important environmental issues such as air and water pollution, water supply, climate change, agriculture and food supply, environmental health, ecosystem disruption, environmental management, environmental ethics, and energy resources. Topics may vary depending on current events.

#### ENV-SCI 220 Ecosystem Science for Decision Makers Credits: 3

This course addresses the fundamentals of ecosystem science with an emphasis on human-induced change in natural systems. Course content characterizes the biological patterns found in nature emphasizing application of underlying principles. Scientific tools are provided to evaluate ecosystem concerns and make informed decisions.

# ENV-SCI 321 Climate Change Impact Assessment and Policy Response Credits: 3

This course introduces how scientists assess observed climate change and predict future climate change. Lectures, discussions, problem sets, and term papers help students explore interactions among climate change, human activities and policy responses. It helps students achieve an appreciation for the role of accurate scientific information as foundation for shaping political agreements and policies on climate change. **Prerequisites:** ENV-SCI 110R.

#### ENV-SCI 332CZ Environmental Sustainability Credits: 3

This course will introduce the concept of sustainability and review how sustainability might work at the individual, neighborhood, state, nation and global scales. Students will participate in some form of community engagement on sustainability as well as reflect upon how their own practices impact the environment.

#### ENV-SCI 416 Understanding and Living with Volcanoes Credits: 3

This course will examine the distribution, tectonic setting, and morphology of a range of volcano types on Earth and a few examples from other planets. Students will study volcanic processes including explosive and passive processes and how we investigate them. This will involve discussion of volcanic hazards and hazard assessment, risk communication, and the challenges of volcanic crises response. The course will also cover how volcanoes impact the local and global economy and Earth's climate. Recommended preparation: GEOG 314 / GEOLOGY 314 or GEOLOGY 325 or GEOLOGY 342.

Prerequisites: GEOLOGY 220 or ENV-SCI 110R/ENV-SCI 110L, and GEOG 203 or GEOG 402.

# ENV-SCI 449 Global Water and Sustainability Credits: 3

This course examines the physical characteristics of water and its role in Earth systems. The challenges facing societies in an era of rapidly-changing climate are explored.

# ENV-SCI 496 Environmental Internship Credits: 1-4

Students obtain practical experience working for local engineering and environmental firms, or governmental agencies. Specific duties and application requirements will vary depending on the funding organization's needs. Junior or senior standing required for undergraduates.