Environmental Studies: Sustainable Resource Management

Environmental Studies *is an interdisciplinary program that investigates interactions between humans and their environment. This includes physical and biological aspects in addition to the highly modified human-made environments such as urban and agricultural systems.*

Exploring ways of meeting humanity's current and future needs for energy, food and shelter that are scientifically, socially, and economically viable and that do not compromise earth's resources and ecological systems, this concentration prepares students to investigate and implement policies relating to the environment and natural resource conservation and to work in state and national parks, undertake environmental advocacy, develop programs for cultural and physical resource management and education, and continue study at the graduate level.

Required Courses

Environmental Core:
ENVS 201 – Foundations in Environmental Science I
ENVS 201L - Foundations in Environmental Science I Lab
ENVS 202 - Foundations in Environmental Science II
ENVS 202L - Foundations in Environmental Science II Lab
ENVS 462 - Environmental Capstone

Additional Requirements:
ENVS 306 - Environmental Policy
ENVS 401 - Conservation Ecology
GSCI 301 - Physical Geology
MATH 314 – Statistics

Elective Courses

Foundational Sciences (choose one sequence):
BIOL 103 - General Biology AND BIOL 104 - General Biology, OR
BIOL 211 - Fundamentals of Biology I: Molecular and Cellular Function AND BIOL 212 - Fundamentals of Biology II: Diversity of Life, OR
CHEM 207 - General Chemistry I, CHEM 207L - General Chemistry I Laboratory AND CHEM 209 - General Chemistry II, CHEM 209L - General Chemistry II Laboratory, OR
GSCI 103 - General Physical Science AND GSCI 104 - General Physical Science, OR
PHYS 201 - College Physics I, PHYS 201L - College Physics I Laboratory AND PHYS 202 - College Physics II, PHYS 202L - College Physics II Laboratory, OR
PHYS 221 - General Physics I, PHYS 221L - General Physics I Laboratory AND PHYS 222 - General Physics II, PHYS 222L - General Physics II Laboratory

Biotic and Physical Resources (choose three):
ENVS 309 - Regional Geology and Geomorphology
ENVS 342 – Limnology
ENVS 362 - Soil Science and Lab
ENVS 422 - Stream Ecology
GSCI 302 - General Astronomy
GSCI 303 - Meteorology
GSCI 306 - Introduction to Oceanography and Lab
GSCI 312 - Historical Geology

Management of Our Resources (choose two):
ENVS 300 - Integrated Pest Management and Lab
ENVS 301 - Wildlife Management and Lab
ENVS 302 - Forestry Management and Lab
ENVS 390 – Geographic Information Systems
ENVS 441 – Hydrology and Lab

Environmental Sustainability:
Choose one from:
ENVS 341 - Sustainable Energy and Lab
PHYS 301 – Energy
Choose one from:
ENVS 340 - Sustainable Agriculture and Lab
ENVS 345 - Sustainable Development and Lab
Choose one from:
ANTH 300 - Introduction to Archaeology
ANTH 315 - Cultural Anthropology
APST 309 - West Virginia and the Appalachian Region
APST 356 - Appalachian Culture
ECON 330 - Economics of Developing Countries
GEOG 105 - World Cultural Geography
GEOG 202 - World Regions
GEOG 301 - World Economic Geography

Science Electives (8 Hours):
Choose any two 300-level or above ENVS, GSCI or PHYS courses

Department of Environmental and Physical Sciences
www.shepherd.edu/ieps