

Environmental Studies: Aquatic Sciences

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.

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

Preparing students with practical skills required for employment in industry, consulting firms, or government in positions where practitioners monitor or restore aquatic habitats or to pursue graduate studies in a diverse range of disciplines such as aquaculture, fisheries management, and ecology

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:

BIOL 211 - Fundamentals of Biology I: Molecular and Cellular Function
BIOL 212 - Fundamentals of Biology II: Diversity of Life
MATH 205 - Calculus with Applications
OR
MATH 314 - Statistics
ENVS 306 - Environmental Policy
ENVS 390 - Geographic Information Systems
ENVS 401 - Conservation Ecology
ENVS 441 - Hydrology and Lab
ENVS 461 - Environmental Research
GSCI 301 - Physical Geology
CHEM 207/207L - General Chemistry I and Laboratory
CHEM 209/209L - General Chemistry II and Laboratory
PHYS 201/201L - College Physics I and Laboratory AND
PHYS 202/202L - College Physics I and Laboratory
OR
PHYS 221/221L - General Physics I and Laboratory AND
PHYS 222/222L - General Physics II and Laboratory

Elective Courses

Aquatic Ecology Electives (choose three):

ENVS 342 - Limnology
ENVS 343 - Aquatic Entomology
ENVS 344 - Ichthyology
ENVS 422 - Stream Ecology

Biological and Earth Science Electives (choose one):

ENVS 309 - Regional Geology and Geomorphology
ENVS 362 - Soil Science and Lab
GSCI 303 – Meteorology
GSCI 306 - Introduction to Oceanography and Laboratory
GSCI 312 - Historical Geology
BIOL 302 - Microbiology
BIOL 305 - Cell Biology
BIOL 313 - Invertebrate Natural History
BIOL 315 - Advanced Plant Biology
BIOL 324 - Plant Taxonomy I Fall Flora AND BIOL 325 - Plant Taxonomy II Spring Flora
BIOL 332 - Comparative Anatomy
BIOL 344 - Genetics
BIOL 412 - Comparative Animal Physiology
BIOL 416 - Molecular Biology
BIOL 406 - Developmental Biology

