

# BS in Environmental Sciences

## Degree Program Description

Earth's environment provides conditions conducive for life: an oxygenated atmosphere, water resources, and soil as a medium for plant growth. Environmental processes occurring on the planet govern the movement of air, energy, matter, and water. Through the study of Environmental Sciences, students will learn the science and experience the beauty of the outdoor environment. This degree program addresses how human activities can adversely alter some environmental processes and environmental quality, techniques to improve environmental quality, modeling of environmental processes, and practices that minimize human environmental impacts. The Environmental Sciences degree provides a strong science foundation through general science coursework and specialized studies of the atmosphere, land and soil, water, and environmental outreach and education. The degree combines interests in predicting and understanding weather patterns, monitoring environmental change, conserving and managing soil and biological organisms, assuring healthy streams and adequate water supplies, and improving environmental quality by shaping new policies and educating others about the natural environment and ecological issues. Example careers include Atmospheric Scientist, Climatologist, Environmental Specialist, Environmental Technician, Hydrologist, Land Manager, Meteorologist, Soil Scientist, and Water Quality Specialist. Employment may occur in various sectors, including federal, state, county, and city government agencies, non-government agencies (NGOs), and private consulting firms.

## Major Program Requirements

Students earning a Bachelor of Science in Environmental Sciences are required to complete all University general education (<https://catalog.missouri.edu/academicdegree/requirements/generaleducationrequirements/>), University graduation requirements (<https://catalog.missouri.edu/academicdegree/requirements/universityrequirements/>) and degree requirements, including selected foundational courses, which may fulfill some University general education requirements.

Students majoring in Environmental Sciences must select one of the following emphasis areas:

- Atmosphere (<https://catalog.missouri.edu/collegeofagriculturefoodandnaturalresources/environmentalsciences/bs-environmental-sciences-emphasis-atmosphere/>)
- Land and Soil (<https://catalog.missouri.edu/collegeofagriculturefoodandnaturalresources/environmentalsciences/bs-environmental-sciences-emphasis-land-soil/>)
- Outreach and Education (<https://catalog.missouri.edu/collegeofagriculturefoodandnaturalresources/environmentalsciences/bs-environmental-sciences-emphasis-outreach-education/>)
- Water (<https://catalog.missouri.edu/collegeofagriculturefoodandnaturalresources/environmentalsciences/bs-environmental-sciences-emphasis-water/>)

Students are admissible to transfer into this program with a 2.0 term GPA and 2.0 cumulative GPA, and are directly admissible into the program when they meet the University admissions requirements.

Students planning to transfer courses (including AP credit) and seeking information on how they apply to a degree program(s), can email [CAFNRadvising@missouri.edu](mailto:CAFNRadvising@missouri.edu) for general recommendations.

## Foundational

MATH 1100	College Algebra	3-5
or MATH 1160	Precalculus Mathematics	
MATH 1400	Calculus for Social and Life Sciences I	3-5
or MATH 1500	Analytic Geometry and Calculus I	
CHEM 1400 & CHEM 1401	College Chemistry I and College Chemistry I Laboratory	4
Economics/Business Elective (select from ABM, ECONOM, FINPLN, FINANC, MANGMT, MRKTNG)		3
ABM 2123	Quantitative Applications in Agricultural and Natural Resource Sciences	3
or STAT 1200	Introductory Statistical Reasoning	
ENV_SC 1100	Introduction to Environmental Science	3
ATM_SC 1050	Introductory Meteorology	3
AGSC_COM 2220	Verbal Communication in Agriculture, Food and Natural Resources	3
NAT_R 2325	Introduction to Geographic Information Systems	3
or GEOG 3040	Introduction to Geographic Information Systems GIS	
ENV_SC 4560	Observing the Earth from Space	3
or ABM 1200	Applied Computer Applications	

## Semester Plan

Refer to the Semester Plans for the BS in Environmental Sciences designed for the emphasis areas of Atmosphere (<https://catalog.missouri.edu/collegeofagriculturefoodandnaturalresources/environmentalsciences/bs-environmental-sciences-emphasis-atmosphere/>), Land and Soil (<https://catalog.missouri.edu/collegeofagriculturefoodandnaturalresources/environmentalsciences/bs-environmental-sciences-emphasis-land-soil/>), Water (<https://catalog.missouri.edu/collegeofagriculturefoodandnaturalresources/environmentalsciences/bs-environmental-sciences-emphasis-water/>), and Outreach and Education (<https://catalog.missouri.edu/collegeofagriculturefoodandnaturalresources/environmentalsciences/bs-environmental-sciences-emphasis-outreach-education/>).