Sam Houston State University

Environmental Science B.S. Degree Requirements (2025-26)

Dept. of Environmental and Geosciences

Water Resources

Math Requirements:

Math 1420: Calculus I
Choose 1 of the following 2:
Math 1342: Elementary Statistics ***OR***
Math/Stat 3379: Statistical Methods in Practice
Choose 1 of the following 2:
Math 1430: Calculus II ***OR***
Biol 4374: Biostatistics

Core Intro:

Biol 1401: Environmental Science
Biol 1406: General Biology I
Biol 1407: General Biology II
Chem 1411: General Chemistry I
Chem 1412: General Chemistry II
Choose 2 of the following 3:
Geog 1401: Weather and Climate ***OR***
Geol 1403: Physical Geology ***OR***
Geol 1405: Geologic & Environmental Hazards
Geog 2464: Intro to Geographic Information Systems

Core Advanced:

Biol/Geog 3320: Sustainability & Environment
Biol 3409: General Ecology
Biol 4330: Aquatic Biology
Engl 3330: Intro to Technical Writing
Geog 4330: Hydrology and Water Resources
Geog 4331: Conservation of Natural Resources
Choose 1 of the following 3:
Geog 4361: GIS for Public Health
Geog 4365: Applied GIS
Geog 4468: Remote Sensing
Geog 4432: Geomorphology
Geol 3326: Environmental Geology
Choose 1 of the following 2:
Chem 3368: Environmental Chemistry ***OR***
Geol 4304: Geochemistry
Geol 4426: Hydrogeology
Plsc 3440: Soil Science
Pols 3395: Environmental Policy

This track/concentration requires 5 additional prescribed elective hours.

Sustainability

Math Requirements:

Choose 1 of: Math 1314, Math 1410, ***OR*** Math 1420
Choose 1 of the following 2:
Math 1342: Elementary Statistics ***OR***
Math/Stat 3379: Statistical Methods in Practice
Choose 1 of the following 2:
Biol 4374: Biostatistics
Geog 4374: Geostatistics

Core Intro:

Biol 1401: Environmental Science
Biol 1406: General Biology I
Biol 1407: General Biology II
Chem 1411: General Chemistry I
Geog 1401: Weather and Climate
Geog 2464: Intro to Geographic Information Systems
Choose 1 of the following 2:
Geol 1403: Physical Geology ***OR***
Geol 1405: Geologic & Environmental Hazards

Core Advanced:

Biol/Geog 3320: Sustainability & Environment
Biol 3409: General Ecology
Choose 1 of the following 2:
Econ 3352: Energy & Environmental Economics
Geog 4351: Economic Geography
Geog 3310: Sustainable Development
Geog 4331: Conservation of Natural Resources
Choose 1 of the following 2:
Geog 4330: Hydrology and Water Resources
Geog 4432: Geomorphology
Choose 1 of the following 3:
Geog 4361: GIS for Public Health
Geog 4365: Applied GIS
Geog 4468: Remote Sensing
Geol 3326: Environmental Geology
Plsc 3440: Soil Science
Pols 3395: Environmental Policy
Choose 1 of the following 3:
Soci 4337: Environment and Society
Coms 3393: Environmental Communication
Soci 4334: Sociology of Disaster

This track/concentration requires 17 additional advanced, prescribed elective hours.

Pollution Abatement

Math Requirements:

Math 1420: Calculus I
Choose 1 of the following 2:
Math 1342: Elementary Statistics ***OR***
Math/Stat 3379: Statistical Methods in Practice ***OR***
Biol 4374: Biostatistics

Core Intro:

Biol 1401: Environmental Science
Biol 1406: General Biology I
Biol 1407: General Biology II
Chem 1411: General Chemistry I
Chem 1412: General Chemistry II
Chem 2323: Organic Chem I, Chem 2123: O Chem I Lab
Chem 2401: Quantitative Analysis
Geog 1401: Weather and Climate
Geol 1403: Physical Geology

Core Advanced:

Biol/Geog 3320: Sustainability & Environment
Biol 3409: General Ecology
Biol 4330: Aquatic Biology
Chem 3368: Environmental Chemistry
Geog 4331: Conservation of Natural Resources
Geol 3326: Environmental Geology
Geol 4304: Geochemistry
Geol 4426: Hydrogeology
Plsc 3440: Soil Science
Pols 3395: Environmental Policy

This track/concentration requires 7 additional prescribed elective hours, including 5 advanced hours.

Ask about our **Environmental Science minor** -
Only 6 courses beyond the core curriculum!

Biol 1401: Environmental Science
Biol/Geog 3320: Sustainability and Environment
Chem 1411 OR 1406: General Chem I OR Inorganic & Env Chem
Geog 4331 OR Pols 3395: Conservation of Nat Res OR Env Policy
Choose 4 hours from intro physical science block
Choose 3 hours from advanced environmental block
Choose 6-8 hours prescribed electives

Prescribed Electives

Aget 3383: Soil & Water Conservation Engr[W,P]
Biol 2420: Intro Applied Microbiology[P]
Biol 3461: Wildlife Biology[W,P, S]
Biol 3470: General Microbiology[P]
Biol 4320: Environmental Toxicology[P]
Biol 4330: Aquatic Biology[W,S]
Engl 3330: Intro to Technical Writing[S, P]
Chem 2401: Quantitative Analysis[W]
Chem 3368: Environmental Chemistry[W,P]
Chem 4442: Air Quality[P]
Econ 3352: Energy and Env Economics[W, S, P]
Geog 3301: Environmental Geography[W, S, P]
Geog 3340: Meteorology[W, S, P]
Geog 3342: Climatology[W, S, P]
Geog 3350: Cultural Geography[S]
Geog 3310: Sustainable Development[W, P]
Geog 4330: Hydrology & Water Resources[S, P]
Geog 4333: Field Studies[W, S, P]
Geog 4356: Urban Geography[S]
Geog 4357: Population Geography[S]
Geog 4360: Cultural Field Study[S]
Geog 4361: GIS for Public Health[W, S, P]
Geog 4365: Applied GIS[W, S,]
Geog 4399: Env and Geo Internship[W, S, P]
Geog 4432: Geomorphology[P]
Geog 4468: Remote Sensing[W, S, P]
Geol 3330: Oceanography[W, S, P]
Geol 4304: Geochemistry[W,P]
Geol 4312: Economic Geology[P]
Geol 4400: Stratrigraphy & Sedimentation[W]
Geol 4426: Hydrogeology[S,P]
Hlth 4390: Environmental Health[S,P]
Phil 4334: Environmental Ethics[S]
Plsc 4330: Soil Fertility & Mgt Fertilizers[W,S,P]
Plsc 4370: Forage Crops & Pasture Mgmt[S,P]
Plsc 4397: Integrated Pest Management[S,P]
Soci 4337: Environment and Society[W,S]
Wmgt 2301: Principles of Wildlife Mmgt[S]
Wmgt 3382: Habitat & Pond Management[W,S]

[W] = Water Resources
[S] = Sustainability
[P] = Pollution Abatement

When majoring in Environmental Science, no minor is required given the total credit requirements; listed courses required do not include the core curriculum, though some courses may apply to core requirements.