

# ENVIRONMENTAL SCIENCE: ENVIRONMENTAL SCIENCE & TOXICOLOGY CERTIFICATE

Program code: ESTX-CC

Location: Gateway

## Program Description

The Environmental Science and Toxicology certificate prepares students for entry-level technician positions in the fields of wastewater management, toxicology, pollution prevention and remediation and/or to continue their studies beyond the certificate to receive a two- or four-year degree. Most of the courses in the Certificate count towards the Environmental Science and Toxicology AS degree.

## Learning Outcomes

1. Identify federal, state, and local laws, regulations, and standards affecting environmental science operations
2. Apply chemistry, biology, physics, and mathematics to environmental science, toxicology, and forensic science
3. Analyze air, water, and soil samples from the field and laboratory for pollutants and toxins
4. Identify career options in the environmental science, toxicology, and forensic science fields
5. Explain the basic concepts of public health and occupational health and safety

## Certificate Requirements

Code	Title	Credits
<b>Required Courses</b>		
BIO 1210	General Biology I	4
CHEM 1210	General Chemistry I	4
ENV 1010	Introduction to Environmental Science	3
ENV 1010L	Introduction to Environmental Science Lab	1
MATH 1610	Precalculus	4
CHEM 1220	General Chemistry II	4
CHEM 2410	Biochemistry	4
ENV 2200	Toxicology	3
Choose one of the following:		3-4
BIO 1220	General Biology II	
BIO 2350	Microbiology	
CHEM 2310	Organic Chemistry I	
CHEM 2320	Organic Chemistry II	
ERTH 1010	Earth Science	
ERTH 1020	Natural Disasters	
ENV 1100	Environmental Regulations	
MATH 2600	Calculus I	
MATH 2610	Calculus II	
PHYS 1201	General Physics I	
PHYS 1202	General Physics II	

PHYS 2201	Calculus-Based Physics I
PHYS 2202	Calculus-Based Physics II
WMTR 1001	Water Treatment and Distribution
WMTR 1002	Special Topics in Water Treatment
WMTR 1003	Special Topics in Water Distribution

**Total Credits** **30-31**

- Environmental Science: Environmental Biology, AS
- Environmental Science: Environmental Science and Toxicology, AS
- Environmental Science: Sustainability, AS