

**BLUEGRASS COMMUNITY AND TECHNICAL COLLEGE**

**Environmental Science Technology  
Associate in Applied Science**

Academic Plan Code – 1505077019

**Description:**

This program includes specialized environmental science courses in addition to general education coursework to provide individuals the background necessary for understanding the ecological relationships of the environment. Graduates of this program will be prepared to sample and analyze air, water and soil in accordance with state and federal regulations. Practical lab and field experience in sampling and analysis is stressed. Coursework also emphasizes the application of scientific principles to pollution control problems in accordance with state and federal regulations. Graduates in this field may be employed as technicians by federal, state, and local governmental units as well as utilities, private industry, and environmental engineering consulting firms. Emphasis is placed on developing the student's ability to function effectively in a variety of job situations. Environmental technicians may be responsible for such duties as air pollution surveillance, analysis of water and wastewater samples, ground water and surface water assessment, field sampling, data interpretation, and other support services to engineering and science professionals.

EST 280	Environmental Trends Seminar	1
	Technical Electives (see list below)	6
	<b>Subtotal Credit Hours</b>	<b>39</b>
	<b>Total Credit Hours</b>	<b>66</b>
<b>Technical Elective Options</b>		
PHY 151	Introduction to Physics	3
COE 199	Cooperative Education (Internship)	1-3
EST 299	Selected Topics in Environmental Science Technology	1-3
STA 200	Statistics : A Force in Human Judgment	3
CAD 100	Introduction to Computer-Aided Design	3
GIS 110	Spatial Data Analysis	3
GIS 120	Introduction to Geographic Information Systems	3
CIS 234	Advanced Spreadsheet Applications	3
ENG 203	Business Writing	3
CHE 107	General College Chemistry II	3
CHM 107	General College Chemistry Laboratory II	2
GEO 210	Pollution, Hazards, and Environmental Management	3
GLY 220	Principles of Physical Geology	4
ECO 201	Principles of Economics I	3
CE 211	Surveying	4
ACH 185	Computer-Aided Drafting I	3

Course Number	Course Title	Credit Hours
<b>General Education Core</b>		
ENG 101	Writing I	3
ENG 102	Writing II	3
	Humanities or Heritage Course	3
MA 109 or MT150	College Algebra	3
	Social Interaction Course	3
	Oral Communications Course	3
BIO 112	Basic Ideas of Biology	3
BIO 113	Introduction to Biology Lab	1
CHE 105	General College Chemistry	3
CHM 105	General College Chemistry Lab	2
	<b>Subtotal Credit Hours</b>	<b>27</b>
<b>Technical Core or Support Courses</b>		
CIT 105	Introduction to Computing	3
CIT 130	Microcomputer Applications	3
EST 150	Introduction to Ecology (also counts as Gen Ed science)	4
EST 160	Hydrologic Geology (also counts as Gen Ed science)	3
EST 170	Environmental Sampling Laboratory	2
EST 220	Pollution of Aquatic Ecosystems	3
EST 230	Aquatic Chemistry Lab	2
EST 240	Sources and Effects of Air Pollution	4
EST 250	Solid and Hazardous Waste Management	3
EST 260	Environmental Analysis Laboratory	2
EST 270	Environmental Law and Regulation	3