

ENVIRONMENTAL SCIENCE Associate in Science Degree - 3046

Science Department

CIP Code: 03.0104

The Environmental Science AS program provides students with a firm foundation in mathematics, science and liberal arts needed for transfer to and succeed in a baccalaureate degree program in environmental science, policy, resource management, sustainability, conservation, waste management and natural sciences. Students can focus on sub-disciplines such as education, biology, ecology, chemistry, geology, earth science, engineering, or public health, depending upon the transfer institution of their choice. This curriculum offers Biology and Geoscience concentrations for students to select. Since the requirements of senior institutions vary widely, it is essential to choose an intended transfer institution as soon as possible and carefully follow the program described in that college's catalog. Students who complete HACC's Environmental Science AS degree are admitted at the Junior-level in a related Environmental Science degree at any institution participating in Pennsylvania's statewide college credit transfer system. Students may also complete 75% of this program at the Harrisburg and Lancaster campuses through on-campus/in-person instruction. The remaining coursework may be completed through various modalities (e.g., hybrid, synchronous remote instruction and asynchronous instruction). Lastly, students may complete this program at the York Campus through various modalities (e.g., hybrid, synchronous remote instruction and asynchronous instruction) in addition to on-campus/in-person instruction.

Transfer Opportunities

This transfer curriculum is provided to students to be used as a guide for planning to transfer to a baccalaureate degree granting institution. Students may continue their education in preparation for careers as diverse as sustainability, sustainable resource management, land use or watershed planning, pollution prevention, waste management, environmental monitoring and clean up, air quality, environmental education, water resources and waste water, conservation, public and environmental health, wetlands protection, ecology, natural resource management, regulatory affairs and compliance, parks and recreation management, or within research and development, inspection, testing and quality control. Employers can include federal, state and local government, corporations, consulting firms and nonprofit organizations.

Competency Profile

Upon successful completion of the program, the student will be able to:

- Apply knowledge of environmental processes to environmental issues
- Effectively communicate scientific information
- Critically analyze peer-reviewed literature through the use of scientific databases
- Effectively apply the scientific method in both laboratory and field settings
- Objectively use data to evaluate environmental issues and identify sustainable solutions

PROGRAM REQUIREMENTS (TOTAL CREDITS = 62)

General Education		Major Requirements		Other Required Courses	
ENGL 101 English Composition I	3	BIOL 102 General Biology II	4		
ENGL 102 English Composition II (or)	3	BIOL 203 Environmental Science with Laboratory	4		
ENGL 104 Technical Writing	(3)	GEOL 201 Environmental Geology	4		
COMM 101 Effective Speaking	3	GIS 141 Introduction to Geospatial Technology	3		
Humanities & Arts Core Elective	3				15
Mathematics Core Elective - <i>MATH 103, 104, 119 or 121</i>	3				
Mathematics or Science Core Elective - <i>MATH 202</i>	4				
Science w/ a Laboratory Core Elective - <i>BIOL 101</i>	4				
Social & Behavioral Science Core Elective	3				
First-Year-Seminar Elective (<i>Rec: SCI 100</i>)	1				
Wellness Elective	1				
	28				
Biology Concentration		Geoscience Concentration			
CHEM 101 General Inorganic Chemistry	4	GEOG 101 Physical Geography	3		
CHEM 102 General Inorganic Chem & Qualitative Analysis	4	GEOG 201 World Geography (or)	3		
Biology Concentration Electives*	11	GEOG 230 Human Geography	(3)		
	19	GEOL 101 Physical Geology	4		
		Geoscience Concentration Electives**	11		
			21		

*Students are to select their Biology Concentration electives from the following: BIOL 206, 212, 215, 221; ENVS 220.

**Students are to select their Geoscience Concentration electives from the following: BIOL 206; CHEM 101, 102; ENVS 220; PHYS 201.

RECOMMENDED SEQUENCE FOR FULL-TIME STUDENTS

Part-time students can complete this program by taking one or more courses each semester.

Biology Concentration

Fall Semester I		Spring Semester I		Fall Semester II		Spring Semester II	
BIOL 101	4	BIOL 102	4	Biology Concentration Elective*	4	Biology Concentration Elective*	4
ENGL 101	3	Biology Concentration Elective*	3 or 4	CHEM 101	4	CHEM 102	4
ENVS 201	4	ENGL 102 or 104	3	COMM 101	3	Humanities/Arts Core Elective	3
FYS Elective	1	GEOL 201	4	GIS 141	3	MATH 202	4
MATH 103, 104, 119 or 121	3			Social/Behavioral Science Core Elective	3		
				Wellness Elective	1		

Geoscience Concentration

Fall Semester I		Spring Semester I		Fall Semester II		Spring Semester II	
ENGL 101	3	ENGL 102 or 104	3	BIOL 101	4	BIOL 102	4
ENVS 201	4	GEOL 201	4	COMM 101	3	GEOL 101	4
FYS Elective	1	GEOG 201 or 230	3	GIS 141	3	Geoscience Concentrative Elective**	4
GEOG 101	3	Geoscience Concentration Elective**	3 or 4	Geoscience Concentration Elective**	4	MATH 202	4
Humanities/Arts Core Elective	3	Wellness Elective	1	Social/Behavioral Science Core Elective	3		
MATH 103, 104, 119 or 121	3						