

ENVIRONMENTAL SCIENCE Associate in Science Degree - 3046

Science Department

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 options 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 complete this program at the Harrisburg Campus by taking courses through Virtual Learning.

Career or 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:

- Effectively communicate scientific information both orally and through written reports and presentations
- Apply the scientific method via data collection and analysis to evaluate scientific problems
- Evaluate scientific principles and sustainability as they relate to the discipline
- Demonstrate the proper use of basic scientific equipment
- Utilize environmental science scholarly resources including the library and web-based resources
- Identify the sources and consequences of major constituents of air, water, and land pollution
- Analyze a variety of timely environmental issues in light of their ecological, social, economic, ethical, or cultural implications
- Successfully transfer to a Baccalaureate degree program in Environmental Science or related degree program with a biology emphasis

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	ENVS 201 Introduction to Environmental Science	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 Elective	3		15	
Mathematics Elective - MATH 103, 104, 119 or 121	3			
Mathematics or Science Elective - MATH 202	4			
Science w/ a Laboratory Elective - BIOL 101	4			
Social & Behavioral Science Elective	3			
First-Year-Seminar Elective (Rec: SCI 100)	1			
Wellness	1			
	28			

Biology Concentration

CHEM 101 General Inorganic Chemistry 4
 CHEM 102 General Inorganic Chem & Qualitative Analysis 4
 Biology Concentration Electives* 11

19

Geoscience Concentration

GEOG 101 Physical Geography 3
 GEOG 201 World Geography (or) 3
 GEOG 230 Human Geography (3)
 GEOL 101 Physical Geology 4
 Geoscience Concentration Electives** 11

21

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

**Students are to select 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**

BIOL 101 4
 ENGL 101 3
 ENVS 201 4
 FYS Elective 1
 MATH 103, 104, 119 or 121 3

Spring Semester I

BIOL 102 4
 Biology Concentration Elective* 3 or 4
 ENGL 102 or 104 3
 GEOL 201 4

Fall Semester II

Biology Concentration Elective* 4
 CHEM 101 4
 COMM 101 3
 GIS 141 3
 Social/Behavioral Science Elective 3
 Wellness 1

Spring Semester II

Biology Concentration Elective* 4
 CHEM 102 4
 Humanities/Arts Elective 3
 MATH 202 4

Geoscience Concentration**Fall Semester I**

ENGL 101 3
 ENVS 201 4
 FYS Elective 1

Spring Semester I

ENGL 102 or 104 3
 GEOL 201 4
 GEOG 201 or 230 3
 Geoscience Concentration Elective** 3 or 4
 Wellness 1

Fall Semester II

BIOL 101 4
 COMM 101 3
 GIS 141 3
 Geoscience Concentration Elective** 4
 Social/Behavioral Science Elective 3

Spring Semester II

BIOL 102 4
 GEOL 101 4
 Geoscience Concentration Elective** 4
 MATH 202 4

121