

# ENVIRONMENTAL SCIENCE ASSOCIATE IN SCIENCE FOR TRANSFER DEGREE

The goals of the Environmental Science program are to:

- Meet the needs of students who are majoring in one of the diverse fields encompassed by environmental science, and
- Provide options for students fulfilling general education science requirements.

Awareness of the issues of environmental quality and environmental justice are increasingly important in business, industry, and government.

The growing human population and increasing consumption of resources are creating unprecedented pressures on our planetary life support systems. Within the human population, socioeconomically and politically disenfranchised communities oftentimes suffer the consequences of polluted environments when compared with more advantaged communities. This uneven, inequitable environmental landscape is viewed through the lenses of environmental racism, environmental justice, and multiculturalism.

Environmental Science Majors need to complete an interdisciplinary set of core requirements that provide a basic understanding of the physical, biological, and social sciences and the relevance of these sciences to environmental processes and issues. In addition, the coursework will prepare students for related baccalaureate majors, including: biology, chemistry, engineering, geography (including emphasis in geographic information systems (GIS)), geology, mathematics, oceanography, and physics. For non-majors, the program's goal is to educate students to make better-informed choices about key environmental and health issues.

The Associate in Arts for Transfer (AA-T) or the Associate in Science for Transfer (AS-T) is intended for students who plan to complete a bachelor's degree in a similar major at a CSU campus. Students completing these degrees (AA-T or AS-T) are guaranteed admission to the CSU system, but not to a particular campus or major. To earn this Environmental Science AS-T degree, students must meet the following requirements:

- completion of the following major requirements with a minimum grade of "C" (or "P");
- completion of a minimum of 60 CSU transferable semester units with a grade point average of a least 2.0; and
- certified completion of the CSU General Education-Breadth (CSUGE) for STEM or Intersegmental General Education Transfer Curriculum (IGETC-CSU) for STEM, which requires a minimum of 31-33 units.

It is highly recommended that students complete courses that satisfy the U.S. History, Constitution, and American Ideals requirement as part of CSUGE or IGETC before transferring to a CSU.

Students planning to transfer to a four-year institution and major in Environmental Science should consult with a counselor regarding the transfer process and lower division requirements.

Code	Title	Units
<b>Required Courses:</b>		
BIOL 205	Cell and Molecular Biology	4
CHEM 150	General Chemistry I	5
CHEM 151	General Chemistry II	5

## List A:

ENVSCI 100	Introduction to Environmental Science	3
MATH 108	Introduction to Probability and Statistics	4
or MATH 108H	Introduction to Probability and Statistics - Honors	
or ECON 208	Business and Economic Statistics	
or PSYCH 105	Statistics for the Behavioral Sciences	
MATH 250	Single Variable Calculus I	4
or MATH 141	Business Calculus	

One course sequence:

GEOL 101 & GEOL 111	Introduction to Physical Geology and Introduction to Physical Geology Laboratory	4
GEOG 110 & GEOG 111	Physical Geography and Physical Geography Laboratory	1-4
or GEOG 111H	Physical Geography Laboratory - Honors	

## List B - Two to three courses:

ECON 201	Principles of Microeconomics	3
or ECON 201H	Principles of Microeconomics - Honors	
PHYSIC 202 & PHYSIC 203	Physics I and Physics II	8

Code	Title	Units
<b>Major Total</b>		<b>43</b>
<b>Total Units That May Be Double Counted</b>		<b>13</b>
<b>General Education (GE-Breadth or IGETC-CSU for STEM) Units <sup>1</sup></b>		<b>31-33</b>
<b>Elective (CSU Transferable) Units</b>		<b>0-2</b>
<b>Total Units</b>		<b>60</b>

<sup>1</sup> This AS-T presumes completion of CSU-GE for STEM or IGETC-CSU for STEM, allowing for a completion of 6 units of non-STEM GE work after transfer.

See Section on Degree, Certificate, and Transfer Information for additional information on the Associate Degrees for Transfer.

To earn an SBVC Associate Degree for Transfer (AA-T or AS-T) students must complete one of the following general education patterns:

CSU GE requirements (<https://www.valleycollege.edu/student-services/counseling/csuge/>)

IGETC requirements (<https://www.valleycollege.edu/student-services/counseling/igetc/>)

## Program Learning Outcomes

**At the completion of this program, students will be able to:**

- Analyze the interaction between natural and social systems and subsequent impacts on sustainable development, environmental policies, environmental justice, and racial justice.
- Synthesize the fundamentals of sociology, biology, chemistry, Earth sciences, mathematics, physics, and other social and natural sciences within a framework of human-environment interactions with an emphasis on racial equity and social justice.
- Critically interpret and assess environmental news and trends, including green technologies and career opportunities, national and international environmental policies, resource exploitation and conservation, global climate change, sustainable development, and human health within the context of racial equity and social justice.