

Environmental science

**ENVIRONMENTAL SCIENCE - ENVSC**

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**Possible career opportunities**

Career opportunities in the field of environmental studies have grown with the increase of human population and the need to document and study the relationship between humans and nature. Environmental scientists are needed to monitor, interpret, analyze and enforce the guidelines of governmental policies. Careers include working for the government at all levels, working for companies in science and technology, as well as working in companies in energy fields. Such specialties include pollution prevention, resource conservation and environmental restoration, environmental stewardship, and newly emerging fields such as energy management technology, geospatial technology, and biodiversity preservation. Individuals studying in this field are trained to provide both public and private environmental services in a variety of settings: private business, consulting services and government agencies.

**Program-level student learning outcomes**

Program learning outcomes are subject to change. The most current list of program learning outcomes for each program is published on the DVC website at [www.dvc.edu/slo](http://www.dvc.edu/slo).

**Associate in science degree  
 Environmental science**

Students completing the program will be able to...

- A. differentiate between different biotic and abiotic components of the environment.
- B. explain and analyze man-made impacts on the environment
- C. apply the scientific method for environmental analysis.
- D. explain, illustrate and analyze chemical bonds and reactions.
- E. apply environmental science concepts and analytical procedures in various fields

The associate in science degree in environmental science offers a distinctive program of interdisciplinary study. It is a field of inquiry exploring energy and climate systems and their complex relationships with the world's diverse human cultures. To achieve this goal, students and faculty work together across disciplines to develop an understanding of environmental sustainability in all its dimensions. The program focuses on current environmental concerns that have far-reaching implications for the fate of human society, ecological systems, and energy diversity. This involves an integration of knowledge from a variety of disciplines to understand the function of the ecological system and human impact upon these systems at a local, regional, and global scale.

Students are advised that there are a wide range of environmental science areas of emphasis offered at the university level. Therefore, while choosing electives, students are advised to consult with a counselor or faculty advisor to select courses that will meet the requirements of an area of emphasis at their selected transfer institution. DVC environmental science students who intend to transfer must consult with a program advisor or counselor to ensure that the requirements for transfer to four-year institutions of their choice are met. Students who intend to transfer are advised to select either General Education Option 2 (IGETC) or Option 3 (CSU GE). General Education Option 1 (DVC General Education) is appropriate for students who do not intend to transfer.

To earn an associate in science degree, students must complete each required course with a "C" grade or higher and complete general education requirements as listed in the catalog. Degree requirements can be completed by attending classes in the day, evening, online, or a combination of those. Certain classes may satisfy both major and other general education requirements; however, the units are only counted once.

<i>major requirements:</i>		<i>units</i>
BIOSC-170	Environmental Science .....	3
GEOG-140	Introduction to Weather .....	3
GEOL-120	Physical Geology.....	3

<i>plus at least 4 units from:</i>	
CHEM-108	Introductory Chemistry..... 4
CHEM-120	General College Chemistry I..... 5

<i>plus at least 4 units from:</i>	
MATH-142	Elementary Statistics with Probability..... 4
MATH-192	Analytic Geometry and Calculus I..... 5

<i>plus at least 9 units from:</i>		
ARCHI-207	Environmental Control Systems .....	3
BIOSC-126	Ecology and Field Biology .....	4
ENGIN-130	Energy, Society, and the Environment.....	3
ENSYS-120	Introduction to Energy Systems .....	3
ENSYS-125	Building Envelope and Systems .....	3
GEOG-124	Thinking and Communicating Geospatially.....	3
GEOG-125	Introduction to Geographic Information Systems (GIS).....	3
GEOG-129	Field Data Acquisition and Management .....	3
GEOG-160	Introduction to Remote Sensing.....	4
PHYS-120	General College Physics I.....	4
PHYS-121	General College Physics II.....	4
PHYS-130	Physics for Engineers and Scientists A: Mechanics and Wave Motion.....	4
PHYS-230	Physics for Engineers and Scientists B: Heat and Electro-Magnetism.....	4

**total minimum required units** **26**

**ENVSC-295 Occupational Work Experience  
Education in ENVSC**

1-4 units SC

- *May be repeated three times*
- *Variable hours*
- *Note: In order to enroll in ENVSC-295, students must be employed, register for the course, complete an online Employment Form, and participate in an orientation. Employment Form can be accessed at [www.dvc.edu/wrkx](http://www.dvc.edu/wrkx). Incomplete grades are not awarded for this course.*

ENVSC-295 is supervised employment that extends classroom learning to the job site and relates to the student's chosen field of study or area of career interest. Under the supervision of a college instructor, students will engage in on-the-job and other learning experiences that contribute to their employability skills and occupational or educational goals. Five hours work per week or seventy-five hours work per term is equal to one unit. Students may earn up to a maximum of sixteen units; repetition allowed per Title 5 Section 55253. CSU