ENVIRONMENTAL SCIENCE, ASSOCIATE IN SCIENCE FOR TRANSFER

The development of the Associate in Science in Environmental Science for Transfer Degree (AS-T in Environmental Science) helps transfer students focus on the core prerequisite courses and supports them as they move toward their goal in transferring to a four-year institution. Students who complete this degree will satisfy lower-division general education and major requirements for transfer to a CSU in Environmental Science program. Further, students who complete the degree will be guaranteed admission to the CSU system.

The Associate in Science in Environmental Science for Transfer Degree (AS-T) is intended for students who plan to transfer and complete a bachelor's degree in Environmental Science, or a major deemed similar at a CSU campus. Each CSU campus determines which of the degrees it offers are "similar" and can be completed with the preparation included in the AS-T in Environmental Science within 60 units once a student transfers, so which majors are "similar" varies from CSU to CSU. For a current list of what majors (and what options or areas of emphasis within that major) have been designed as "similar" to this degree at each CSU campus, please refer to the CSU's Associate Degree for Transfer Major and Campus Search (https://www2.calstate.edu/apply/transfer/Pages/associate-degree-for-transfer-major-and-campus-search.aspx) webpage and seek guidance from a Ventura College counselor. Students completing this AS-T degree are guaranteed admission to the CSU system but not necessarily to a particular campus or a major of choice.

To earn an AS-T in Environmental Science, students must:

1. Complete 60 semester or 90 quarter units that are eligible for transfer to the California State University, including both of the following:
   a. The California Intersegmental General Education Transfer (Cal-GETC) pattern, and
   b. The required coursework for the AS-T in Environmental Science as listed in the Ventura College catalog.

2. Obtain a minimum grade point average (GPA) of at least in all CSU-transferable coursework. While a minimum of is required for admission, some transfer institutions and majors may require a higher GPA. Please consult with a counselor for more information.

3. Obtain a grade of "C" or better or "P" in all courses required in the major. Even though a "pass-no-pass" is allowed (Title 5 §55062), it is highly recommended that students complete their major courses with a letter grade (A, B, or C).

4. Complete requirements in residency. For students in the Ventura County Community College District, a minimum of 12 units must be completed in residence within the college district.

Students transferring to a CSU campus that accepts the AS-T in Environmental Science will be required to complete no more than 60 units after transfer to earn a bachelor's degree (unless the major is a designated "high-unit" major at a particular campus). This degree may not be the best option for students intending to transfer to a particular CSU campus or to a university or college that is not part of the CSU system. Students should consult with a counselor to obtain more information on university admission and transfer requirements.

Course ID	Title	Units/ Hours
Required Core Courses		
ESRM V01	Introduction to Environmental Issues	3
or ESRM V02	Introduction to Environmental Science	
BIOL V03	Evolution, Ecology, and Organismal Biology	4
BIOL V04	Cell and Molecular Biology	4
CHEM V120A	General Chemistry I	5
STAT C1000	Introduction to Statistics	4
MATH C2210	Calculus I: Early Transcendentals	5
ECON C2001	Principles of Microeconomics	3
Required Core Units		**28**
Required Additional Units		
List A: Select one option from the following:		
GEOG V01 & V01L	Elements of Physical Geography and Elements of Physical Geography Laboratory	4
GEOL V02 & V02L	Physical Geology and Physical Geology Laboratory	4
List B: Select one option from the following:		
PHYS V02A & V02AL & PHYS V02B & PHYS V02BL	General Physics I: Algebra/Trigonometry-Based and General Physics I Laboratory: Algebra/Trigonometry-Based and General Physics II: Algebra/Trigonometry-Based and General Physics II Laboratory: Algebra/Trigonometry-Based	10
PHYS V04 & V04L & PHYS V05 & PHYS V05L	Mechanics for Scientists and Engineers and Mechanics Laboratory for Scientists and Engineers and Electricity and Magnetism for Scientists and Engineers and Electricity and Magnetism Laboratory for Scientists and Engineers	10
Required Additional Units		**14**

Total Major Units		**42**

CalGETC General Education Pattern		
Required Major Units		42
CalGETC General Education Units		34
Double-Counted Units		(13)
Elective Units		0
Total Units for the A.A. for Transfer Degree		**63**

See a counselor or consult* assist.org *(http://assist.org/), if you plan to transfer to a UC campus or a college or university other than a CSU.

This Plan of Study applies to the Cal-GETC General Education Pattern and illustrates **one** sequence of courses to meet the degree requirements in two years. Students are encouraged to meet with a counselor to design a plan of study which will best meet their specific educational needs.

Year 1		
Fall Semester		**Units/Hours**
ESRM V01 or ESRM V02	Introduction to Environmental Issues or Introduction to Environmental Science	3
CHEM V101	Elementary Chemistry (prerequisite for CHEM V120A)	5
ECON C2001	Principles of Microeconomics	3
STAT C1000	Introduction to Statistics	4
	Units/Hours	**15**
Spring Semester		
BIOL V04	Cell and Molecular Biology	4
Choose either GEOG V01 and GEOG V01L or GEOL V02 and GEOL V02L		4
MATH C2210	Calculus I: Early Transcendentals	5
ENGL C1000	Academic Reading and Writing	4
	Units/Hours	**17**
Summer Semester		
COMM C1000	Introduction to Public Speaking	3
	Units/Hours	**3**
Year 2		
Fall Semester		
BIOL V03	Evolution, Ecology, and Organismal Biology	4
CHEM V120A	General Chemistry I	5
Select one of the following PHYS sequence part 1: PHYS V02A and PHYS V02AL or PHYS V04 and PHYS V04L		5
Select Course...Cal-GETC Area 1B		3
	Units/Hours	**17**
Spring Semester		
Select one of the following PHYS sequence part 1: PHYS V02B and PHYS V02BL or PHYS V05 and PHYS V05L		5
Select Course...Cal-GETC Area 3A		3
Select Course...Cal-GETC Area 3B		3
Select Course...Cal-GETC Area 4		3
Select Course...Cal-GETC Area 6		3
	Units/Hours	**17**
	Total Units/Hours	**69**

Upon successful completion of this program, students will be able to:

- analyze the impacts of modern technologies on living and nonliving systems, including the health of human and non-human animals.
- analyze the history and current use of fossil fuels, including the challenges such as global warming, associated with their use and the relevance of alternative forms of energy in the modern energy landscape.
- evaluate the properties, conservation, and role of soil and water in agriculture, including how water is consumed and managed throughout other parts of the anthroposphere.
- apply the concept of sustainability, from local through global scales including various environmental policies enacted or proposed.
- create a diagram to illustrate how water and other materials (e.g., carbon, etc.) cycle throughout the earth system.
- evaluate sources of air, land, and water pollution, including management and legislation that helps to mitigate their impacts on the ecosphere.
- analyze the relationship between population growth and environmental issues and the resulting impacts on human well-being.
- analyze how photosynthesis, cellular respiration, and thermodynamics underpin the chemistry and physics of living systems.
- compare various strategies to manage various types of waste and the role of recycling strategies to mitigate excessive waste
- critique current conservation management practices employed by government, NGO, and private organization for marine and terrestrial resources.