

ADT IN GEOLOGY

This curriculum is designed to provide an opportunity for the Geology major to achieve an Associate in Science Degree in Geology for Transfer (AS-T in Geology) which completes the first and second year requirements for transfer to a four-year public California institution. Students with a degree in geology may pursue careers in education, consulting, research or work in industry as an entry geologist or geotechnician in fields such as engineering geology, environmental geology, petroleum and mining geology, hydrogeology, seismology, paleontology, geophysics, marine geology and volcanology. While at least a baccalaureate degree is recommended preparation for those considering professional careers, completion of this curriculum will demonstrate commitment to the field and provide comprehensive preparation for further academic study through upper-division course work.

This curriculum specifically prepares the prospective transfer student for upper division course work in Geology or a similar major at a California State University (CSU) campus. Students should consult a counselor, the Transfer Center and the catalog of the transfer college or university to plan a specific program of study to meet the college or university's requirements.

Learning Outcomes

A.S.-Transfer Degree Level Student Learning Outcomes

Students completing the Geology A.S.-Transfer Degree will:

1. Demonstrate scientific literacy by defining and explaining the major steps in the scientific method such as empirical data, testable hypothesis, and theory, applying general math skills such as metric unit conversion, solving rate problems, and producing and interpreting data in tables and graphs.
2. Identify and classify the earth materials, such as most common minerals, rocks, and major groups of fossils in the lab and the field and their basic relationship to common natural resources.
3. List, explain, and evaluate global and local geological hazards such as earthquakes, volcanoes, landslides, and seismic sea waves in terms of appropriate geological processes and the theory of plate tectonics.
4. Demonstrate an understanding of the geologic time scale and relative and numerical methods of measuring geologic time, age of the Earth, and major events in its history

Requirements

Students receiving this transfer degree must meet the following requirements:

1. Completion of 60 semester units or 90 quarter units that are eligible for transfer to the California State University, including both of the following:
 - a. The Intersegmental General Education Transfer Curriculum (IGETC) (<http://catalog.citruscollege.edu/programs-study/graduation-requirements-associate-degree/general-education-requirements-transfer-csu-uc-igetc-option-iii/>) or the California State University General Education - Breadth Requirements ([http://catalog.citruscollege.edu/programs-study/graduation-](http://catalog.citruscollege.edu/programs-study/graduation-requirements-associate-degree/general-education-requirements-transfer-csu-uc-igetc-option-iii/)

requirements-associate-degree/general-education-requirements-transfer-csu-uc-igetc-option-ii/).

- b. A minimum of 18 semester units or 27 quarter units in a major or area of emphasis, as determined by the community college district.
2. Obtainment of a minimum grade point average of 2.0.

ADTs also require that students must earn a "C" (or "P") or better in all courses required for the major or area of emphasis.

Code	Title	Units
Required courses:		
ESCI 120	Physical Geology	4
ESCI 121	Historical Geology	4
CHEM 111	General Chemistry I	5
CHEM 112	General Chemistry II	5
MATH 190	Calculus with Analytic Geometry I	5
MATH 191	Calculus with Analytic Geometry II	5

Total Units **28**

Additional recommended preparation for transfer-bound students (not part of the Geology Degree)

Code	Title	Units
PHYS 201	Physics A: Mechanics	5
PHYS 202	Physics B: Thermodynamics and Electromagnetism	5
PHYS 203	Physics C: Waves, Optics & Modern Physics	5
BIOL 124	Molecular and Cellular Biology	5
BIOL 125	Evolution, Ecology & Biodiversity	5

Curriculum Map

2.5-Year Curriculum Map Example

This map represents one possible pathway through the program and is only for reference.

*It is highly recommended that you make an appointment (<https://www.citruscollege.edu/stdntsrvcounsel/Pages/ApptSchedule.aspx>) to create a customized education plan that fits your needs.

Note: Co-requisite MATH course (2 units) and/or substitute ENGL 101E (5 units) may be needed based on placement.

Course	Title	Units
Fall Term 1		
COUN 206	Pathways to Careers in STEM	3
MATH 175	Pre-Calculus	6
ENGL 101 or ENGL 101H	Reading and Composition or Reading and Composition - Honors	4
Units		13

Course	Title	Units	Course	Title	Units
Winter Term 1			PHYS 202	Physics B: Thermodynamics and Electromagnetism	5
ARCH 250	History of Architecture: Prehistory to Mannerism	3	or PHYS 203	or Physics C: Waves, Optics & Modern Physics	
or ARCH 251	or History of Architecture: Baroque to the Present Day		Units		15
or ART 100	or Art History - Fundamentals of Global Art History		Winter Term 3		
or ART 105	or Art History - Topics in Contemporary Art		HIST 107	History of the United States before 1877	3
or ART 108	or History of Photography		or HIST 107H	or History of the United States before 1877 - Honors	
or ART 110	or Introduction to the Visual Arts		or HIST 108	or History of the United States since 1877	
or ART 199	or Motion Picture Appreciation		or HIST 108H	or History of the United States since 1877 - Honors	
or ART 199H	or Motion Picture Appreciation - Honors		or HIST 160	or History of Women in the United States	
or DANC 102	or History of Dance		Units		3
or MUSE 113	or History of Rock and Roll		Spring Term 3		
or THEA 101	or Introduction to Theatre Arts		BIOL 125	Evolution, Ecology & Biodiversity	5
or THEA 101H	or Introduction to Theatre Arts - Honors		ETHN 101	Introduction to Ethnic Studies	3
Units		3	or ETHN 116	or Introduction to Chicano/Latino Studies	
Spring Term 1			PHYS 202	Physics B: Thermodynamics and Electromagnetism	5
MATH 190	Calculus with Analytic Geometry I	5	or PHYS 203	or Physics C: Waves, Optics & Modern Physics	
CHEM 110	Beginning General Chemistry	5	Units		13
ENGL 104	Argumentative Writing and Critical Thinking	3	Total Units		
or ENGL 104H	or Argumentative Writing and Critical Thinking - Honors		97		
Units		13	Career Information		
Summer Term 1			Career Opportunities		
POLI 103	American Government and Politics	3	There are a variety of careers you can do with this major.		
or POLI 103H	or American Government and Politics - Honors		To explore more about this major, schedule an appointment		
Units		3	(https://www.citruscollege.edu/stdntsrvt/ctcenter/Pages/		
Fall Term 2			ApptSchedule.aspx) with a career counselor.		
MATH 191	Calculus with Analytic Geometry II	5	<hr/>		
CHEM 111	General Chemistry I	5	<hr/>		
ESCI 120	Physical Geology	4	<hr/>		
Units		14	<hr/>		
Winter Term 2			<hr/>		
SPCH 100	Interpersonal Communication	3	<hr/>		
or SPCH 100H	or Interpersonal Communication - Honors		<hr/>		
or SPCH 101	or Public Address		<hr/>		
or SPCH 101H	or Public Address - Honors		<hr/>		
or SPCH 106	or Small Group Communication		<hr/>		
Units		3	<hr/>		
Spring Term 2			<hr/>		
CHEM 112	General Chemistry II	5	<hr/>		
ESCI 121	Historical Geology	4	<hr/>		
PHYS 201	Physics A: Mechanics	5	<hr/>		
or PHYS 201H	or Physics A: Mechanics - Honors		<hr/>		
Units		14	<hr/>		
Summer Term 2			<hr/>		
ARCH 250	History of Architecture: Prehistory to Mannerism	3	<hr/>		
or ARCH 251	or History of Architecture: Baroque to the Present Day		<hr/>		
or ART 100	or Art History - Fundamentals of Global Art History		<hr/>		
or ART 105	or Art History - Topics in Contemporary Art		<hr/>		
or ART 108	or History of Photography		<hr/>		
or ART 110	or Introduction to the Visual Arts		<hr/>		
or ART 199	or Motion Picture Appreciation		<hr/>		
or ART 199H	or Motion Picture Appreciation - Honors		<hr/>		
or DANC 102	or History of Dance		<hr/>		
or ENGL 290	or Ethnic Voices in Film		<hr/>		
or ENGL 293	or Children's Literature		<hr/>		
or ENGL 293H	or Children's Literature - Honors		<hr/>		
or ENGL 298	or Literature of the Bible		<hr/>		
or KIN 166	or American Food And Culture: Global Origins, History,		<hr/>		
or MUSE 113	and Current Impacts		<hr/>		
or PHIL 101	or History of Rock and Roll		<hr/>		
or SOC 130	or Great Religions of the World		<hr/>		
or THEA 101	or Introduction to LGBTQ Studies		<hr/>		
or THEA 101H	or Introduction to Theatre Arts		<hr/>		
	or Introduction to Theatre Arts - Honors		<hr/>		
Units		3	<hr/>		
Fall Term 3			<hr/>		
BIOL 124	Molecular and Cellular Biology	5	<hr/>		
MATH 210	Calculus with Analytic Geometry III	5	<hr/>		