

# GEOLOGY, ASSOCIATE IN SCIENCE DEGREE FOR TRANSFER (AS-T)

**Banner Code:** 1\_AST\_GEOL  
**Financial Aid Eligible**

Students graduating with an Associate in Science in Geology for Transfer Degree are well positioned to complete a Bachelor's Degree in a similar major within the California State University system with 60 units of upper-division coursework. Students who complete the Geology AS-T degree are guaranteed admission to the CSU system, but not to a particular campus or major. Students must maintain a minimum grade point average (GPA) of at least 2.0 in all CSU-transferable coursework. While a minimum 2.0 is required for CSU admission, some majors may require a higher GPA. Please consult a counselor for more information.

The Associate in Science in Geology for transfer Degree focuses on an understanding of internal processes responsible for the formation of the Earth from a scientific perspective. Students choosing this degree program will study a range of natural science concepts including plate tectonics, climate change, and the evolution of the dynamic planet Earth. This degree employs the scientific method to understand the formation of the Earth, including how volcanoes and mountain building events change the geography and ecosystems of the Earth. Students will explore geologic time as it relates to the origins, and evolution of life through the fossil record.

An understanding of the formation of economically important mineral and fossil fuel resources is an important aspect of the degree program. Portions of the course work will focus on the diverse California geologic setting and coastal development. Completion of the Associate in Science in Geology for transfer Degree will provide students with a well-rounded understanding of human impacts on the globe and the ways geologic hazards such as earthquakes, floods, and landslides impact human development.

The coursework prepares students to think critically and apply reasoning skills to analyze real world situations. It is strongly recommended that all geology majors take courses in physics and biology in addition to the degree requirements, but this cannot be included as a requirement due to unit limitations.

## Program Outcomes

1. Apply the scientific method to solve geological problems.
2. Summarize geologic time, explain the geologic time scale and its scientific basis, recount the milestone events in Earth history, and understand the basics of common dating methods.
3. Express the role of the geology in everyday life, appreciate the extent of human impact on Earth systems and environments, and understand the processes that create natural hazards, and the strategies that minimize their impact on society.
4. Students will be eligible and prepared for admission (SB 1440 and Education Code 66746) to California State University system schools.

## Associate Degree for Transfer Requirements

The following is required for all AA-T or AS-T degrees:

1. Minimum of 60 CSU-transferable semester units.
2. Minimum GPA of at least 2.0 in all CSU transferable coursework. While a minimum of 2.0 is required for admission, some majors require a higher GPA. Consult with a counselor for more information.
3. Completion of a minimum of 18-semester units in the major as detailed in the Degree and Certificate section of this catalog. All courses in the major must be completed with a grade of C (or "P") or better.
4. Certified completion of the California State University General Education-Breadth pattern (CSU General Education Breadth – Option 2 (<https://catalog.cccd.edu/orange-coast/general-education-patterns/associate-degree-general-education-option-2/>)) OR the Intersegmental General Education Transfer Curriculum (IGETC – Option 3 (<https://catalog.cccd.edu/orange-coast/general-education-patterns/associate-degree-general-education-option-3/>)).
5. A minimum of 12 units in residence within the Coast Colleges (Orange Coast College, Golden West College and/or Coastline College).

Course	Title	Units
<b>Core Courses</b>		
GEOL A110	Physical Geology	4
GEOL A185	Evolution of the Earth	3
GEOL A185L	Evolution of the Earth Lab	1
CHEM A180	General Chemistry A	5
CHEM A185	General Chemistry B	5
MATH A180/A180H	Calculus 1	4
MATH A185/A185H	Calculus 2	4
Program Major Units		26
CSU or IGETC for CSU		37-39
Transferable electives as needed to satisfy unit requirement		Varies
Total Units		60

## Program Sequence - CSU

These sequences at Orange Coast College are general course curriculum maps for students to finish all major and general education requirements for two-year completion of degrees, and/or fulfillment of transfer requirements. The course sequence may include course prerequisites and other placement requirements. **Students are advised to meet with an Orange Coast College Counselor to review course selections and sequences to ensure that completion of this program will meet a student's transfer and career goals.**

Course	Title	Units
<b>Year 1</b>		
<b>Semester 1</b>		
GEOL A110	Physical Geology	4
MATH A180 or MATH A180H	Calculus 1 or Calculus 1 Honors	4
CSU GE AREA A2- CHOOSE ONE		3
CSU GE AREA C1- CHOOSE ONE		3
<b>Units</b>		<b>14</b>

Course	Title	Units
<b>Semester 2</b>		
GEOL A185	Evolution of the Earth	3
GEOL A185L	Evolution of the Earth Lab	1
CHEM A180	General Chemistry A	5
MATH A185 or MATH A185H	Calculus 2 or Calculus 2 Honors	4
CSU GE AREA A3- CHOOSE ONE		3-4
<b>Units</b>		<b>16-17</b>
<b>Year 2</b>		
<b>Semester 1</b>		
PSCI A180 or PSCI A180H	American Government <sup>1</sup> or American Government Honors	3
CHEM A185	General Chemistry B	5
CSU GE AREA C1 or C2- CHOOSE ONE		3
CSU GE AREA A1- CHOOSE ONE		3
<b>Units</b>		<b>14</b>
<b>Semester 2</b>		
HIST A170 or HIST A170H or HIST A175 or HIST A175H	History of the United States to 1876 <sup>1</sup> or History of the United States to 1876 Honors or History of the United States Since 1876 or History of the United States Since 1876 Honors	3
CSU GE AREA F- CHOOSE ONE		3
CSU GE AREA D- CHOOSE ONE		3
CSU GE AREA E- CHOOSE ONE		3
CSU GE AREA B2 - CHOOSE ONE		3
ELECTIVE (CSU TRANSFERABLE) <sup>2</sup>		1
<b>Units</b>		<b>16</b>
<b>Total Units</b>		<b>60-61</b>

<sup>1</sup> American Ideals Requirement - CSU Graduation Requirement<sup>2</sup> VARIES TO REACH MINIMUM 60 TRANSFERABLE UNITS

## Program Sequence - IGETC

These sequences at Orange Coast College are general course curriculum maps for students to finish all major and general education requirements for two-year completion of degrees, and/or fulfillment of transfer requirements. The course sequence may include course prerequisites and other placement requirements. **Students are advised to meet with an Orange Coast College Counselor to review course selections and sequences to ensure that completion of this program will meet a student's transfer and career goals.**

Course	Title	Units
<b>Year 1</b>		
<b>Semester 1</b>		
GEOL A110	Physical Geology	4
MATH A180	Calculus 1	4
IGETC GE AREA 1A- CHOOSE ONE		3
IGETC AREA 3A- CHOOSE ONE		3
<b>Units</b>		<b>14</b>

Course	Title	Units
<b>Semester 2</b>		
GEOL A185	Evolution of the Earth	3
GEOL A185L	Evolution of the Earth Lab	1
CHEM A180	General Chemistry A	5
MATH A185	Calculus 2	4
IGETC GE AREA 1B- CHOOSE ONE		3-4
<b>Units</b>		<b>16-17</b>
<b>Year 2</b>		
<b>Semester 1</b>		
PSCI A180 or PSCI A180H	American Government <sup>1</sup> or American Government Honors	3
CHEM A185	General Chemistry B	5
IGETC GE AREA 3A or 3B- CHOOSE ONE		3
IGETC GE AREA 5B- CHOOSE ONE		3
<b>Units</b>		<b>14</b>
<b>Semester 2</b>		
HIST A170 or HIST A170H or HIST A175 or HIST A175H	History of the United States to 1876 <sup>2</sup> or History of the United States to 1876 Honors or History of the United States Since 1876 or History of the United States Since 1876 Honors	3
IGETC GE AREA 1C- CHOOSE ONE or ELECTIVE (UC TRANSFERABLE) <sup>3</sup>		3
IGETC GE AREA 4- CHOOSE ONE		3
IGETC GE AREA 4- CHOOSE ONE		3
LOTE: Foreign Language or ELECTIVE (UC TRANSFERABLE) <sup>4</sup>		4-5
<b>Units</b>		<b>16-17</b>
<b>Total Units</b>		<b>60-62</b>

<sup>1</sup> American Ideals Requirement - IGETC GE AREA 4 and CSU Graduation Requirement OR take another course from IGETC GE AREA 4<sup>2</sup> American Ideals Requirement - IGETC GE AREA 3B and CSU Graduation Requirement OR take another course from IGETC GE AREA 3B<sup>3</sup> IGETC GE Area 1C - CSU Requirement<sup>4</sup> LOTE Requirement for UC only. If met LOTE through HS then take elective units to meet minimum 60 transferable units