PROGRAM DESCRIPTION:
The Geology Associate in Science for Transfer is unique among the sciences; Geology is the study of the earth, its environments, and its history. It is an interdisciplinary science that combines geological observations and concepts with those of biology, chemistry, physics and mathematics. Its goals are to study rocks, minerals, fossils, and energy and water resources, and to understand geologic principles and processes that shape the earth and its environments.

Specialized geological studies apply information and techniques from other sciences and engineering to solve problems of the physical environment. Examples of geological specialties include the following: paleontology, the study of prehistoric biology; mineralogy, the application of chemistry and physics to the mineral kingdom; petrology, the application of chemistry and physics to understanding the origin and history of rocks; engineering geology, the application of geological and engineering information to construction of roads, dams, tunnels, landslide stabilization, etc.; and hydrology, the study of surface and underground water supplies.

The program is suited to the needs of students who will complete their education at Chaffey College with an Associate in Science degree, as well as those students who will complete their Chaffey Associate in Science degree and transfer to a four year institution to complete their bachelor’s degree. Successful completion of the transfer degree in Geology guarantees the student acceptance to a California State University (but does not guarantee acceptance to a particular campus or major) to pursue a baccalaureate degree, in preparation to pursue a career in the fields of civil engineering, drafting, engineering management, geography education, petrology, physical geology, environmental geology, invertebrate paleontology, oceanography, geophysics, hydrology and seismology. Geology majors continue to find employment searching for new oil and gas reserves and mineral deposits but they also work with federal, state, and local agencies to develop ecologically sound environmental policies. Many geologists are involved in estimating the extent of land, water and mineral resources as well as determining potential hazards from earthquakes, landslides, floods, and volcanoes.

HOW DO I KNOW THIS MAJOR IS FOR ME?
- You are interested in learning about the physical environment
- You want to work outdoors and in various environments
- You like to collect, record and analyze data
- You enjoy reading maps, charts and diagrams
- You are good at identifying problems and developing solutions
- You are careful and detail oriented

WHAT CAN I DO WITH THIS ASSOCIATE DEGREE?
- Geological Sample Assistant
- Recreation Leader
- Land-use Technician
- Mapping Assistant
- Forest/Conservation Technician
- Surveying Technician
- Camp Counselor
- Travel Guide

WHERE CAN I WORK?
This pathway provides you with a choice of various work environments including:
- Mining Companies
- Bureau of Land Management
- County Departments
- Private Industry
- City/County Offices
- Schools and Colleges
- Federal/State Government
- Non-profit Organizations
- Technology Companies
- Construction Companies

WHAT IS THE POTENTIAL WAGE OUTLOOK?
This associate degree may lead to a position as a Land-use Technician, which according to O*NetOnline in 2018 the median wage in California was $63,670 annually. The job and wage outlook will vary based on the position selected within this major. To review current salary information and job outlook for other occupational titles, visit www.onetonline.org.

WHAT CAN I DO IN THE FUTURE WITH MORE EDUCATION?
The positions below require at least a bachelor’s degree in Geology. According to O*NetOnline, the median salary in 2018 for a Geoscientist in California was $90,200.
- Geoscientist
- Geologist
- Hydrologist
- Materials Technician
- Water Resource Specialist
- Wastewater Engineer
- Resource Conservationist
- Resource Analyst
- Land Manager
- Erosion Control Specialist
- University Professor
- Land Surveyor
- Natural Science Manager
- Resource Program Director
- Geological Engineer

For additional information about career pathways and to find out if this major is a good fit for you visit the Career Center located in MACC 203. Career information was collected from www.onetonline.org and www.bls.gov.
MAJOR AND COURSE REQUIREMENTS:
To obtain the Geology AS-T degree, students must:

- Complete all the major requirements listed below with grades of C or better.
- Complete a minimum of 60 CSU-transferable units listed with a grade point average (GPA) of 2.0 or better.
- Complete either the California State University General Education Breadth pattern (CSU GE), or the Intersegmental General Education Transfer Curriculum (IGETC).

LEGEND: G=Grade  IP=In Progress  N=Need  **Bold: Prerequisites**  Plain Text: No Prerequisites  *: Corequisite

<table>
<thead>
<tr>
<th>Major Requirements for the Associate in Science for Transfer Degree: (S221A/B)</th>
<th>Grade</th>
<th>IP</th>
<th>Need</th>
<th>Units</th>
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<td>CHEM 24A</td>
<td>General Chemistry I</td>
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<td>CHEM 24B</td>
<td>General Chemistry II</td>
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<td>GEOL 1</td>
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<tr>
<td>MATH 65B</td>
<td>Calculus II</td>
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</tbody>
</table>

IGETC  CSU
| General Education | 37 | 39 |
| Total units that may be double counted | 7 | 7 |
| Elective (CSU transferable) units | 4 | 2 |

Total units: 60

Units for the major: 26

COUNSELOR NOTES:

$46 per unit for CA Residents