

GEOLOGY

ASSOCIATE DEGREE & CERTIFICATE PROGRAMS

2021-2022 CATALOG

DESCRIPTION

The Cuesta College Earth and Ocean Science Program involves the study of the solid earth, ocean and atmosphere. It is the branch of science that investigates diverse geologic processes, including rock and mineral formation, tectonic and volcanic processes, and landform and seafloor development. In addition, the examination of the origins and evolution of life through the study of fossils (paleontology) and the assessment of economically important mineral deposits, fossil fuels, and geologic hazards are integral to the discipline. The chemistry and physics of the ocean and atmosphere are examined for their impact on the distribution of marine sediments, ocean circulation, weather and global climate patterns. Specific course topics fulfill the lower division requirements for majors in geology, geophysics, civil engineering, construction management, and environmental science. Students can earn an A.S. degree in Geology at Cuesta College, preparing them for transfer to four-year institutions or for employment in technical careers.

ASSOCIATE DEGREE AND CERTIFICATE PROGRAMS

Students who complete an [Associate Degree for Transfer \(ADT\)](#) and transfer to a similar major at a CSU are guaranteed a pathway to finish their baccalaureate degrees in 60 semester or 90 quarter units. These degrees require students to meet both of 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 GE Transfer Curriculum (IGETC) or the California State University GE-Breadth Requirements (CSU GE-Breadth). (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.

An [Associate Degree](#), depending on the focus of study, is designed to prepare students for transfer into upper division course work in a bachelor's degree program, or, to prepare students to enter the workforce in a particular vocational field. To qualify for an Associate's Degree, a student must: (1) complete each major-specific course required for the degree with at least a "C" grade or better, (2) complete all Cuesta College general education, graduation and residency requirements, and (3) achieve an overall grade point average of 2.0 for all courses attempted (major, general education, elective).

DEGREES, CERTIFICATES & AWARDS

- Associate in Science for Transfer (A.S.-T.)
- Associate in Science (A.S.)
- Certificate of Achievement (C.A.)

CAREER OPPORTUNITIES

- Atmospheric, Earth, Marine, and Space Sciences Teachers, Postsecondary
- Geoscientists, Except Hydrologists and Geographers
- Hydrologists
- Natural Sciences Managers
- Water Resource Specialists

CONTACT

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A Certificate Program is designed for students who desire specific training to meet an immediate occupational or personal goal, or for promotion or lateral transfer within their existing field of employment. To qualify for a Certificate of Achievement or a Certificate of Specialization, a student must 1) complete all courses required for the Certificate with an overall grade point average of 2.0.

ASSOCIATE DEGREE FOR TRANSFER PROGRAM

Geology — Associate in Science for Transfer

Required Core: (28 credits)

GEOL 210 Physical Geology	4
GEOL 211 Historical Geology	4
CHEM 201A. . . General College Chemistry I	5
CHEM 201B. . . General College Chemistry II	5
MATH 265A. . . Calculus I	5
MATH 265B. . . Calculus II	5
Total Credits:	28

"P" (Pass) grade is acceptable for major coursework in the Associate Degrees for Transfer. In addition to major preparation course work listed above, completion of the CSU GE or IGETC pattern is mandatory.

Courses completed for the major can also be double counted towards GE, where appropriate. See a counselor for details.

[Click Here For Program Student Learning Outcomes](#)

ASSOCIATE DEGREE PROGRAM

Geology — Associate in Science

Required Courses (16 credits)

GEOL 210 Physical Geology	4
GEOL 220 Geology Of California	3
GEOL 212 Environmental Geology.	3
or GEOL 230 . . Introduction To Geographic Information Systems (3)	
GEOL 229A . . . Geological Science Field Studies	1
GEOL 229B . . . Geological Science Field Studies	1
OCEN 210 Oceanography	3
OCEN 210L . . . Oceanography Laboratory	1

Plus 10 credits from the following:

CHEM 201A. . . General College Chemistry I	5
CHEM 201B. . . General College Chemistry II	5
MATH 265A. . . Calculus I	5
MATH 265B. . . Calculus II	5
PHYS 208A . . . Principles Of Physics 1.	5
PHYS 208B . . . Principles Of Physics 2.	5
Total Credits:	26

[Click Here For Program Student Learning Outcomes](#)

TRANSFER PREPARATION

Courses that fulfill major requirements for an associate degree may differ from those needed to prepare to transfer. Students who plan to transfer to a four-year college or university should schedule an appointment with a Cuesta College counselor to develop a student education plan (SEP) before beginning their program.

TRANSFER RESOURCES:

CSU and UC Articulation Agreements and Majors Search Engine:

www.ASSIST.org

CSU System Information:

www2.calstate.edu

FINANCIAL AID

Paying for the cost of a college education requires a partnership among parents, students and the college. As the cost of higher education continues to rise we want you to know that Cuesta College offers a full array of financial aid programs—grants, work study, scholarships, federal loan programs, and fee waivers. These programs are available to both full-and part-time students who are seeking a degree or certificate. For those who qualify, financial aid is available to help with tuition, fees, books and supplies, food, housing, transportation, and childcare. Please log onto our website for additional information:

www.cuesta.edu/student/student-services/finaid

CERTIFICATE PROGRAM**Geographic Information Systems** — Certificate of Achievement**Core courses**

GEO 230 Introduction To Geographic Information Systems 3

GEO 231 Advanced Geographic Information Systems 3

GEO 232 Web Applications In Geographic Information Systems . 3

Elective courses

GEO 233 Data Acquisition And Management In Geographic
Information Systems 3

or GEO 234 . . Introduction To Remote Sensing (3)

Total Credits: **12**

[Click Here For Program Student Learning Outcomes](#)



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