Geology

Geology AS-T

The Associate in Science in Geology for Transfer degree trains individuals in the physical aspects and history of the earth. Geologists, in general, are analytical, curious, able to work as a team, and are required to communicate effectively. The Associate in Science in Geology for Transfer degree is designed to prepare students for a seamless transfer into the CSU system to complete a baccalaureate degree in Geology or similar major.

Program Student Learning Outcomes

Upon completion of the program, students will be able to:

- define and demonstrate understanding of terms and concepts used during the courses
- describe and explain Geographic patterns as they related to the courses
- describe and analyze maps relative to physical/cultural people and places
- demonstrate and understanding of geographical factors as they relate to physical and cultural diversity around the world
- demonstrate an understanding of human/environment interactions and consequences of these interactions

Associate Degree for Transfer requirements (pursuant to SB 1440):

- Complete a minimum of 18 semester units in a major or area of emphasis
- Complete IGETC or CSU General Education – Breadth requirements
- Complete total of 60 CSU transferable semester units
- Complete all required courses for the major or area of emphasis with a "C" or better
- Obtain an overall minimum grade point average of 2.0

Course #	Title	Units
Required Core Courses		
GEOL-001	Physical Geology	
GEOL-003	Historical Geology	
CHEM-001A	General Chemistry I	
CHEM-001B	General Chemistry II	
MATH-001A	Introduction to Calculus	
MATH-001B	Calculus with Applications	
	Total	28
	CSU-GE-B or IGETC requirements (allowing double counting)	37-39
	CSU Transferable Electives	0-2
	Total	**60**

This is a recommended sequence of courses for timely completion of this program. Entry in to transfer level English and math is required to follow this recommended sequence. Please see your counselor to formalize your personalized educational plan or for alternative planning. Recommended completion of MATH 015 prior to starting program pathway.

SEMESTER 1		SEMESTER 2		SEMESTER 3		SEMESTER 4	
GEOL-001		GEOL-003		CHEM-001A		CHEM-001B	
MATH-001A		MATH-001B		POLSCI-001		HIST-017A or 017B	3
COM-001 or 004	3	Area A3	3	Area C1	3	Area D	3
ENG-001A		Area E	3	Area C2	3	Area C1/2	3
	15		**15**	BIO-010			**14**
					17		

Geology AA and AS

Geology trains individuals in the physical aspects and history of the earth. These individuals are then able to locate natural resources such as petroleum and minerals and work in laboratories. They also advise construction companies and government agencies. Some administer and manage research and exploration programs; others work in environmental research. Geologists also work in related fields such as drafting, engineering technology, petroleum engineering, surveying, and science teaching. Geologists, in general, are analytical, curious, able to work as a team, and are required to communicate effectively.

Program Student Learning Outcomes

Upon completion of the program, students will be able to:

- evaluate the structure of the Earth's interior, including physical and chemical forces, and the data that support this understanding.
- evaluate the various methods for determining geologic time scale.
- demonstrate proficiency in calculations to interpret chemical systems
- employ sophisticated problem solving techniques to identify the useful information provided, choose a strategy for solving the problem, demonstrate proficiency in arriving at a solution, test the solution, and interpret the results as they relate to appropriate physics concepts

Associate Degree Requirements:

- Complete a minimum of 18 semester units in a major or area of emphasis
- Complete Local General Education and District requirements
- Complete elective units for total of 60 degree applicable semester units
- Complete all required courses for the major or area of emphasis, English, and math with a "C" or better
- Obtain an overall minimum grade point average of 2.0

Course #	Title	Units
Required Core Courses		
GEOL-001	Physical Geology	
GEOL-003	Historical Geology	
Choose from 10 Units of the following courses:		
CHEM-001A	General Chemistry I	
CHEM-001B	General Chemistry II	
CHEM-002A	Introductory Chemistry	
PHYSICS-002A	Mechanics and Thermodynamics	
PHYSICS-002B	Electricity, Magnetism, Optics, Modern Physics	
PHYSICS-004A	Classical Mechanics	
PHYSICS-004B	Electricity, Magnetism, & Waves	
PHYSICS-004C	Thermodynamics, Optics & Modern Physics	
	Total	**60**

*This is a **recommended sequence** of courses for timely completion of this program. Entry in to transfer level English and math is required to follow this recommended sequence. Please see your counselor to formalize your personalized educational plan or for alternative planning.*

SEMESTER 1		SEMESTER 2	
GEOL-001		GEOL-003	
MATH-015		AREA-C	3
ENG-001A		AREA-D	3
AREA-E	3	ELECTIVE-001-049	5
	15		**15**

SEMESTER 3		SEMESTER 4	
CHEM-001A or MAJOR	5	CHEM-001B or MAJOR	5

ELECTIVE-001-049	10	ELECTIVE-001-049	10
	15		**15**