

# GEOLOGY, AS

## Program Code: Geology-AS

### Program Description

The Associate of Science, Geology is a two-year transferable program that will teach you the fundamental skills of an Earth scientist. You will explore the physical and biological processes that shape the Earth, examine the distribution of resources humanity relies on, and learn the skills to interpret our planet's past, present, and future. The degree includes courses in science, math, and general education that will partially satisfy the bachelor of science in Geology at the University of Nevada, Reno (UNR). It will also partially meet the requirements for the following bachelor of science degrees at UNR: Geological Engineering, Geophysics, and Hydrogeology.

Geology Career Map (<https://sites.tmcc.edu/flipbook/career-maps/>)

### Recommended Course Schedule

1st semester		Units
Fine Arts		3
ENG 101	Composition I	3
or ENG 113	or Composition I for International and Multilingual Students	
GEOL 101	Geology: Exploring Planet Earth	4
GEOG 106	Introduction to Cultural Geography	3
MATH 126	Pre-Calculus I	3
<b>Semester Total</b>		<b>16</b>
2nd semester		Units
ENG 102	Composition II	3
or ENG 114	or Composition II For International and Multilingual Students	
CHEM 121	General Chemistry I	4
Humanities/U.S. and Nevada Constitutions(Recommended: CH 203)		3
MATH 127	Pre-Calculus II	3
Social Science/Diversity(Recommended: GEOG 200)		3
<b>Semester Total</b>		<b>16</b>
3rd semester		Units
GEOG 210	Introduction to Geotechnology	3
GEOL 102	Earth and Life Through Time	4
MATH 181	Calculus I	4
PHYS 151	General Physics I	4
or		
PHYS 180 & 180L	Physics for Scientists and Engineers I and Physics for Scientists/Engineers Lab I	4
<b>Semester Total</b>		<b>15</b>
4th semester		Units
MATH 182	Calculus II	4
GEOL 260	Introduction to Field Methods	2
PHYS 152	General Physics II	4
or		
PHYS 181 & 181L	Physics for Scientists and Engineers II and Physics for Scientists/Engineers Lab II	4

Electives	3
<b>Semester Total</b>	<b>13</b>
<b>Total Units</b>	<b>60</b>

### Program Requirements

Associate of Science degrees are designed for students who plan to transfer to a four-year college or university.

To earn an AS degree, students must:

1. Maintain a minimum cumulative GPA of 2.0 (see requirements for graduation.)
2. Complete a minimum of 15 units within the college.
3. Satisfy General Education requirements for the AS (<https://catalog.tmcc.edu/degrees-certificates/general-education/as/>).
4. Have no financial or library obligation to the college.

Code	Title	Units
<b>General Education Requirements</b>		
<i>English</i>		3-6
Must include ENG 102 or ENG 114		
<i>Fine Arts</i>		3
<i>Humanities</i>		3
Recommended:		
CH 203	American Experiences and Constitutional Change	
<i>Mathematics</i>		3
MATH 126	Pre-Calculus I (or higher)	
<i>Science</i>		6
GEOL 101	Geology: Exploring Planet Earth	
GEOL 102	Earth and Life Through Time (2 units will meet the Additional College Requirement for Science )	
<i>Social Science</i>		3
Recommended:		
GEOG 200	World Regional Geography	
<b>Additional College Requirements</b>		
<i>Diversity</i> <sup>3</sup>		[3]
Recommended:		
GEOG 200	World Regional Geography	
<i>Science</i>		6
CHEM 121	General Chemistry I	
<i>U.S. and Nevada Constitutions</i> <sup>3</sup>		[3]
Recommended:		
CH 203	American Experiences and Constitutional Change	
<b>Degree Requirements</b>		
GEOG 106	Introduction to Cultural Geography	3
GEOG 210	Introduction to Geotechnology	3
GEOL 260	Introduction to Field Methods	2
MATH 127	Pre-Calculus II	3
MATH 181	Calculus I	4
MATH 182	Calculus II	4

PHYS 151 & PHYS 152	General Physics I and General Physics II	8
or		
PHYS 180 & 180L & PHYS 181 & PHYS 181L	Physics for Scientists and Engineers I and Physics for Scientists/Engineers Lab I and Physics for Scientists and Engineers II and Physics for Scientists/Engineers Lab II	
Electives		3
Recommended:		
BIOL 234	Natural History of the Great Basin	
ENV 101	Introduction to Environmental Science	
GEOG 103	Physical Geography of Earth's Environment	
GEOG 121	Climate Change and its Environmental Impacts	
GEOG 220	Introduction to Cartography	
NRES 100	Prin of Natural Resources & Environmental Sciences	
NRES 210	Environmental Pollution	
STAT 152	Introduction to Statistics	
<b>Total Units</b>		<b>60</b>

[www.tmcc.edu/advisement/transfer-students/transfer-agreements/](http://www.tmcc.edu/advisement/transfer-students/transfer-agreements/)). Students who intend to transfer to another college or university should speak with a TMCC Academic Advisor and consult with that institution. The transfer institution determines how TMCC courses will transfer. TMCC has agreements with the following institutions towards a bachelor's degree in the same or similar discipline.

- University of Nevada, Reno (<https://www.unr.edu/admissions/transfer/credits/transfer-agreements/>)

<sup>1</sup> If you place into ENG 102 or ENG 114 the additional 3 required units will become elective units.

<sup>2</sup> MATH 181 and MATH 182 are required of Geology majors at UNR prior to graduation.

<sup>3</sup> Course may also count toward degree requirements. Please consult with Academic Advisement.

## Program Outcomes

Students completing the degree will:

PSLO 1: describe tectonic processes and relate them to rock formation and deformation.

PSLO 2: identify common minerals and rocks and interpret their origins.

PSLO 3: apply basic relative and absolute dating techniques to evaluate the ages of events in the geologic record.

PSLO 4: explain how physical processes, such as climate change, tectonic activity, and extraterrestrial events affect the evolution of the Earth system including the biosphere.

PSLO 5: operate basic geotechnical software and hardware to collect, analyze, and display geospatial data.

PSLO 6: demonstrate understanding of the occurrence of mineral, energy, and water resources, including their extraction and its associated problems.

PSLO 7: interpret the geologic history of a selected region, applying appropriate field observation techniques and literature review.

## Transfer Agreements

AA/AS degrees are designed for students who plan to transfer to a four-year college or university. General information about general transfer agreements can be found on the Academic Advisement website (<https://www.tmcc.edu/advisement/transfer-students/transfer-agreements/>).