

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

## Program Goals and Objectives

**Must address a valid transfer, workforce preparation, basic skills, civic education, or lifelong learning purpose.**

The main goal and objective of the Associate in Science degree in Geology for Transfer Degree (AS-T in Geology) is to provide an alternative path to students who wish to transfer to a CSU campus as a Geology major. The degree also serves the diverse needs of students who wish to obtain a broad and an in-depth understanding of the Geology field.

Students who complete Geology courses will be able to apply the principles of Earth system science and plate tectonic theory to describe and explain Earth's materials, landscapes, natural hazards, and dynamic history. Geology is a multidisciplinary science that applies the concepts of biology, chemistry, physics and mathematics to the natural world around us.

**The proposal must demonstrate a need for a program that meets the stated goals and objectives in the region the college proposes to serve with the program.**

Comply with SB 1440 by providing a pathway for students transferring to a CSU in a major deemed similar.

## Program Student Learning Outcomes

**Upon completion of this program a student will be able to:**

apply the principles of Earth system science and plate tectonic theory to describe and explain Earth's materials, landscapes, natural hazards, and dynamic history.

analyze scientific data to make interpretations, propose hypotheses, or analyze existing hypotheses.

## Catalog Description

**Includes program requirements, prerequisite skills or enrollment limitations, student learning outcomes, and information relevant to program goal.**

The Associate in Science in Geology for Transfer (AS-T in Geology) is intended for students who plan to transfer and complete a bachelor's degree in Geology, or a "similar" major at a CSU campus. Each CSU campus determines which of the degrees it offers are "similar" and can be completed with the preparation included in the AS-T in Geology within 60 units once a student transfers, so which majors are "similar" varies from CSU to CSU. For a current list of what majors (and what options or areas of emphasis within that major) have been designated as "similar" to this degree at each CSU campus, please refer to the CSU's Associate Degree for Transfer Major and Campus Search website and seek guidance from a Moorpark College counselor. Students completing this degree are guaranteed admission to the CSU system, but not to a particular campus or major.

**Includes course requirements and sequencing that reflect program goals.**

**To earn an AS-T in Geology degree, students must:**

1. Complete a minimum of 60 semester or 90 quarter units that are eligible for transfer to the California State University, including both of the following:
  - a. The California General Education Transfer Curriculum (Cal-GETC) requirements.
  - b. The required coursework for the AS-T in Geology as listed in the Moorpark College catalog.
2. Complete all courses in the major and the Cal-GETC with a grade of "C" or better or "Pass/Credit" if the course is taken on a "pass-no-pass" basis. Even though a "Pass/Credit" grade is allowed, it is highly recommended that students complete their major courses with a letter grade (A, B, or C). **Note:** the UC system allows a maximum of 14 semester (21 quarter) units of courses graded "Pass/Credit" toward the 60 transferable semester units required for transfer admission.
3. Obtain a minimum grade point average (GPA) of 2.0 in all CSU-transferable coursework. While a minimum GPA of 2.0 is required for admission, some transfer institutions and majors may require a higher GPA. Please consult with a counselor for more information.
4. Complete a minimum of 12 semester units within the Ventura County Community College District.

Students transferring to a CSU campus that does accept the AS-T in Geology will be required to complete no more than 60 units after transfer to earn a bachelor's degree (unless the major is a designated "high-unit" major at a particular campus). This degree may not be the best option for students intending to transfer to a particular CSU campus or to a university or college that is not part of the CSU system. Students should consult with a counselor to obtain more information on university admission and transfer requirements.

| Course ID                    | Title                                        | Units/Hours |
|------------------------------|----------------------------------------------|-------------|
| <b>REQUIRED CORE COURSES</b> |                                              |             |
| GEOL M02<br>or GEOL M02H     | Physical Geology<br>Honors: Physical Geology | 3           |
| GEOL M02L                    | Physical Geology Lab                         | 1           |

|                                  |                                                                                   |           |
|----------------------------------|-----------------------------------------------------------------------------------|-----------|
| GEOL M03                         | Earth History                                                                     | 3         |
| GEOL M03L                        | Earth History Lab                                                                 | 1         |
| CHEM M01A<br>or CHEM M01AH       | General Chemistry I<br>Honors: General Chemistry I                                | 5         |
| CHEM M01B                        | General Chemistry II                                                              | 5         |
| MATH C2210<br>or MATH C2210H     | Calculus I: Early Transcendentals<br>Calculus I: Early Transcendentals - Honors   | 5         |
| MATH C2220<br>or MATH C2220H     | Calculus II: Early Transcendentals<br>Calculus II: Early Transcendentals - Honors | 5         |
| <b>Total Units for the Major</b> |                                                                                   | <b>28</b> |

**Highly Recommended Preparation (Not part of the Transfer degree)**

|          |                                                |   |
|----------|------------------------------------------------|---|
| GIS M01  | Introduction to Geographic Information Systems | 3 |
| GEOL M18 | Field Geology                                  | 1 |

**Recommended Preparation (Not part of the Transfer degree) - Select two or more courses from the following**

|                              |                                                                                 |      |
|------------------------------|---------------------------------------------------------------------------------|------|
| ENSC M03                     | Energy Resources and Conservation                                               | 3    |
| GEOL M05<br>& M05L           | The World Ocean<br>and The World Ocean Lab                                      | 3, 1 |
| GEOL M61                     | Natural Disasters                                                               | 3    |
| GEOG M01<br>& M01L           | Physical Geography<br>and Physical Geography Lab                                | 3, 1 |
| GEOG M10                     | Geography of California                                                         | 3    |
| GIS M23                      | Remote Sensing of the Environment                                               | 3    |
| PHYS M20A<br>& M20AL         | Mechanics of Solids and Fluids<br>and Mechanics of Solids and Fluids Laboratory | 4, 1 |
| STAT C1000<br>or STAT C1000H | Introduction to Statistics<br>Introduction to Statistics - Honors               | 4    |

|                                        |           |
|----------------------------------------|-----------|
| <b>Total Units for Major</b>           | <b>28</b> |
| <b>General Education (Cal-GETC)</b>    | <b>34</b> |
| Double-Counted Units                   | 7         |
| Elective Units                         | 5         |
| <b>Total Units for the AS-T Degree</b> | <b>60</b> |

**Plan of Study**

Includes a list of courses organized by the suggested semester a student should enroll. Make sure to align the plan of study with when courses are typically offered.

| Year 1                       |                                                                          | Units/Hours |
|------------------------------|--------------------------------------------------------------------------|-------------|
| <b>Fall Semester</b>         |                                                                          |             |
| GEOL M02<br>or GEOL M02H     | Physical Geology<br>or Honors: Physical Geology                          | 3           |
| GEOL M02L                    | Physical Geology Lab                                                     | 1           |
| ENGL C1000<br>or ENGL C1000H | Academic Reading and Writing<br>or Academic Reading and Writing - Honors | 4           |
| CHEM M01A<br>or CHEM M01AH   | General Chemistry I<br>or Honors: General Chemistry I                    | 5           |

|                        |                      |   |
|------------------------|----------------------|---|
| <b>Spring Semester</b> |                      |   |
| GEOL M03               | Earth History        | 3 |
| GEOL M03L              | Earth History Lab    | 1 |
| CHEM M01B              | General Chemistry II | 5 |
| 2 Cal-GETC Courses     |                      |   |

|                                                                 |                                                                                    |   |
|-----------------------------------------------------------------|------------------------------------------------------------------------------------|---|
| <b>Year 2</b>                                                   |                                                                                    |   |
| <b>Fall Semester</b>                                            |                                                                                    |   |
| MATH C2210<br>or MATH C2210H                                    | Calculus I: Early Transcendentals<br>or Calculus I: Early Transcendentals - Honors | 5 |
| 2-3 Cal-GETC courses                                            |                                                                                    |   |
| Highly Recommended Courses, NOT part of the degree requirements |                                                                                    |   |

|          |                                                |   |
|----------|------------------------------------------------|---|
| GIS M01  | Introduction to Geographic Information Systems | 3 |
| GEOL M18 | Field Geology                                  | 1 |

**Spring Semester**

|                              |                                                                                      |   |
|------------------------------|--------------------------------------------------------------------------------------|---|
| MATH C2220<br>or MATH C2220H | Calculus II: Early Transcendentals<br>or Calculus II: Early Transcendentals - Honors | 5 |
|------------------------------|--------------------------------------------------------------------------------------|---|

**2 - 3 Cal-GETC courses**

Recommended Courses, NOT part of the degree requirements - Select two or more courses

|                              |                                                                                 |      |
|------------------------------|---------------------------------------------------------------------------------|------|
| GEOL M05<br>& M05L           | The World Ocean<br>and The World Ocean Lab                                      | 3, 1 |
| GEOL M61                     | Natural Disasters                                                               | 3    |
| GEOG M01<br>& M01L           | Physical Geography<br>and Physical Geography Lab                                | 3, 1 |
| GEOG M10                     | Geography of California                                                         | 3    |
| PHYS M20A<br>& M20AL         | Mechanics of Solids and Fluids<br>and Mechanics of Solids and Fluids Laboratory | 4, 1 |
| STAT C1000<br>or STAT C1000H | Introduction to Statistics<br>or Introduction to Statistics - Honors            | 4    |