



Transfer Model Curriculum Template for Geology

Approval Dates: May 13, 2011; December 4, 2012; June 30, 2016;
November 8, 2023 (Cal-GETC Compliance)

CCC Associate Degree for Transfer Major or Area of Emphasis: Geology

CSU Majors deemed similar: Geology, Geophysics, Earth Science

Degree Type: AS-T

Total Minimum Semester Units for Major or Area of Emphasis: 26

Courses

Required Core (26 units minimum):

Title	C-ID Designation or other Justification	C-ID Units (or sample units)	Proposed Cal-GETC Area for double counting
Physical Geology with Lab OR Physical Geology and Physical Geology Laboratory	GEOL 101 GEOL 100 GEOL 100L	4 3 1	5A/5C 5A 5C
Historical Geology with Lab OR Historical Geology and Historical Geology Lab	GEOL 111 GEOL 110 GEOL 110L	4 3 1	5A/5C 5A 5C
General Chemistry for Science Majors Sequence A	CHEM 120S	10	5A/5C
Single Variable Calculus I – Early Transcendentals and Single Variable Calculus II – Early Transcendentals OR Single Variable Calculus I – Late Transcendentals and Single Variable Calculus II – Late Transcendentals OR Single Variable Calculus Sequence	MATH 210 MATH 220 MATH 211 MATH 221 MATH 900S	4 4 4 4 8	2 2 2 2 2

TOTAL MAJOR UNITS	26*
Cal-GETC Requirements	34
Double Counting GE	-
Elective	-
Total Units	60

* All units are based on the semester and indicated minimum units. The major must be a minimum of 18 semester units.

Notes and History

Additional recommended preparation (not part of the TMC):

- Calculus-Based Physics for Scientists and Engineers: A (4) and Calculus-Based Physics for Scientists and Engineers: B (4) PHYS 205 and 210
- Organismal Biology (4) BIOL 140
- Mineralogy (4) GEOL 280

Due to the limits imposed by SB 1440, the Geology FDRG had to determine how to “fit” major preparation into the 60 unit limit. Ideally students need to complete an entire year of geology (C-ID Geology 101 & 111) along with an entire year of general chemistry, calculus, calculus-based physics, and possibly mineralogy (C-ID Geology 280), if it is taught at the institution, to be prepared for junior year coursework. As such, the proposed TMC is followed by coursework that would not be a component of the TMC, but that students could be recommended to complete prior to transfer

Summary

The Geology TMC was initially developed at the October DIG meetings. Shortly after the DIGs, the FDRG was convened and the TMC that was posted for vetting reflected the FDRG's effort to reconcile the slight differences in the initial DIG products. Online vetting was conducted, with the former IMPAC list-serv being used to reach discipline faculty, and CIAC, CCC Senate Presidents, and CCC Curriculum Chairs. The TMC that was vetted, however, violated the unit limits. As a consequence, the FDRG reconvened to determine how best to decrease the units. The original TMC included physics. When units had to be dropped, it was clear that removing physics made sense as the 1st vetting yielded numerous negative comments regarding the physics requirement. The 2nd vetting yielded more positive reaction, but continued voices arguing for the inclusion of a number of courses that are not universally required. Additional details can be found below.

There were comments about the Historical Geology requirement. A few colleges said that they did not offer Historical Geology, however, these colleges also for the most part have low enrollment in Geology, and Historical Geology is so widely a necessary component of the degree across the state, it was decided that it must be kept in the TMC.

Comments about additional courses such as Field Methods and Oceanography were also addressed. We have no room for extra courses in the TMC, particularly courses that are not universally required, let alone offered in very few places at the CC level. So long as Physics must remain on the recommended (rather than required) list, these other courses shall remain off the TMC and will be considered at the individual CSU/UC's discretion. Finally, there were comments about the inclusion of Mineralogy and Biology courses. These courses are only recommended for additional preparation and are not a part of the TMC.

5-Year Review

Many of the requests for changes were similar in nature to the issues addressed when the TMC was developed. Adding Environmental Geology, Field Geology, Oceanography, an additional semester of Calculus, and requiring Physics have already been addressed in the development of the TMC and it was determined that the current TMC adequately meets the needs of Geology students transferring from a CCC to a CSU.

Since most of the respondents did not see a necessity in changing the TMC CORE for the AS-T in Geology and given that the majority of negative comments dealt with local issues, it is recommended that there be no changes made to the current TMC.