

CSU Chico  
 Assessment Plan – Department of Geological and Environmental Sciences  
**BS in Geology**

SLO	2017-2018	2018-2019	2019-2020	2020-2021	2021-2022
1.1. Identify and fully describe rocks, minerals or fossils in the field, in hand sample or under the microscope.		X			
1.2. Use the textural characteristics, and the mineralogical and chemical compositions, of igneous and metamorphic rocks to interpret the processes that formed those rocks and the environments in which they formed.		X			
1.3. Use fossils, sedimentary structures, or other physical characteristics of sedimentary rocks to interpret their ages and depositional environments.		X			
2.1. Accurately portray and quantitatively analyze the present and past geometry of rock bodies with appropriate technical diagrams.	X				
2.2. Use geophysical data such as measurements of Earth's gravitational and magnetic fields, radar, and seismic refraction and reflection profiles to discern the geometry of rock bodies at depth.	X				
2.3. Perform kinematic and dynamic analysis of geologic structures.	X				
2.4. Analyze sedimentary basins.	X				
3.1. Reconstruct the evolutionary history of life on earth using the fossil record.			X		
3.2. Use a wide variety of geologic data to interpret the timing and geometry of major tectonic events such as continental collisions, obductions of volcanic arcs, continental rifting, and bolide impacts.			X		
3.3. Use a wide variety of geologic data to interpret the timing and nature of major climatic events such as glaciations, global warm periods, and world-wide sea level changes.			X		

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3.4. Synthesize and integrate interpretations of biological, tectonic, and climatic evolution into a comprehensive understanding of Earth's history.			X		
4.1. Communicate clearly orally and in writing.					X
4.2. Design effective illustrations.					X
4.3. Participate in group situations to accomplish common goals.					X
4.4. Access and reference previous published scientific information					X
5.1. Students will demonstrate that they can observe the various types of rocks and				X	
5.2. Transcribe those observations into proper field-note descriptions.				X	
5.3. Students will demonstrate that they can correctly use the Brunton compass to measure strikes and dips and place that data on a geologic map.				X	
5.4. Student will demonstrate that they can identify contacts between lithologic units on the ground and accurately and precisely plot those contacts on a map.				X	
5.5. Students will demonstrate that they can make field observations, describe those observations accurately in field notes, and be able to interpret the data and synthesize it into a proper field report.				X	
5.6. Students will demonstrate that they can construct and interpret a proper geologic map based on their field observations.				X	
5.7. Students will demonstrate that they can construct and interpret geologic cross-sections and geologic columns.				X	