

Geology Assessment Plan Rev. 6/15/2018

Geology	14-15	15-16	16-17	17-18	18-19	19-20
<b>GEOLB10 - Introduction to Geology</b>						
• Upon completion of the course, the student will be able to explain the scientific method.				X		
• Upon completion the student will be able to: Demonstrate a conceptual understanding of fundamental concepts, principles, and interactions of Earth's systems applicable to the Geological Sciences.				X		
• Upon completion the student will be able to: Apply understanding of the internal and external processes that shape and form the Earth.				X	X	
• Upon completion the student will be able to: Demonstrate an understanding of the rock cycle and identify and describe the basic properties of rocks and minerals.				X	X	
• Upon completion the student will be able to: Demonstrate an understanding of plate tectonics and Earth's resources.				X		X
• Upon completion the student will be able to: Demonstrate an understanding of how geological environments are formed, changed, and eroded through geological time.				X		X
• Upon completion the student will be able to: Communicate complex course concepts effectively in writing and diagrams and apply critical thinking and problem solving skills to make informed decisions in life.				X		X
<b>GEOLB10L - Introduction to Geology Laboratory</b>						
• Upon completion of the course, the student will be able to practically apply the principles of the scientific method.				X		
• Upon completion the student will be able to: Demonstrate a conceptual understanding of fundamental concepts, principles, and interactions of the Earth's systems applicable to the Geological Sciences.		X		X		
• Upon completion the student will be able to: Demonstrate and understanding of the Earth through the identification and evaluation of physical mineral samples.				X		
• Upon completion the student will be able to: Demonstrate an understanding of the Earth through the identification and evaluation of physical igneous, sedimentary, and metamorphic rock samples.				X	X	
• Upon completion the student will be able to: Demonstrate the ability to read and interpret topographic and geologic maps and answer questions pertaining to geological processes.				X	X	
• Upon completion the student will be able to: Demonstrate an ability to communicate complex ideas/concepts effectively in writing and diagrams.				X		X
<b>GEOLB11 - Historical Geology</b>						
• Upon completion of the course, the student will be able to demonstrate a fundamental understanding of concepts and principles of Historical Geology, including fossilization, ecology, evolution, and extinction; Plate Tectonics; Geologic time and dating methods; the Supercontinent Cycle and Paleoclimate.		X	X	X		
• Upon completion the student will be able to: Explain formation of and basic properties of fossils, minerals, and rocks.		X	X	X		
• Upon completion the student will be able to: Explain tectonic processes that shape the Earth over geologic time.		X	X	X	X	
• Upon completion the student will be able to: Interpret sequences of geologic events.		X	X	X		X
<b>GEOLB11L - Historical Geology Laboratory</b>						
• Upon completion of the course, the student will be able to apply the principles of the scientific method.		X	X	X		
• Upon completion the student will be able to: Apply concepts and principles of Historical Geology including: Fossilization; Ecology, Evolution, Extinction and the Fossil Record; Plate Tectonics; Geologic Time and Dating Methods: The Supercontinent Cycle and Paleoclimate.		X	X	X		
• Upon completion the student will be able to: Identify representative physical samples of fossils and rocks.	X	X	X	X		
• Upon completion the student will be able to: Apply knowledge of tectonic processes to interpret geologic events.		X	X	X	X	
• Upon completion the student will be able to: Interpret geologic maps, cross sections and stratigraphic columns.		X	X	X		X
• Upon completion the student will be able to: Apply principles of relative dating to interpret sequences of geologic events.		X	X	X	X	
• Upon completion the student will be able to: Communicate complex course concepts effectively in writing and diagrams.		X		X		

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GEOLB21 - Topics in Geology						
<ul style="list-style-type: none"> <li>Upon completion of the course, the student will be able to use and apply geologic field equipment (including compasses, tape measures, pace, maps, GPS, etc.) used by geologists in the field to analyze, interpret, and synthesize various ongoing and past geologic processes within the study area.</li> </ul>						X
<ul style="list-style-type: none"> <li>Upon completion the student will be able to: Apply the fundamental geologic concepts (i.e. mineral/rock identification, stratigraphic principles, elementary geologic structures and basic field techniques), along with applicable geologic field equipment, to produce a basic geologic map and decipher geological processes representing a specific project area.</li> </ul>						X