



Course Number Course Name	GEOL 2110, Historical Geology
Credit Value (Breakdown of theory and lab credits)	3 Theory
Catalog Course Description	This course reviews the major geological and biological processes and events over the Earth's 4.6-billion-year history. Students will learn about the formation of the Earth and its development through time including changes in the lithosphere, atmosphere, hydrosphere, and biosphere. The interrelationships between the physical aspects of Earth history and biological origins, evolution of species, and causes of extinctions will be explored.
Student Learning Outcomes/Objectives /Competencies of the Course	<p>Student Learning Outcomes:</p> <ol style="list-style-type: none"> 1. List the major principles of stratigraphy and biostratigraphy and discuss their significance. 2. Recognize or explain how sedimentary rocks can be used to interpret ancient environments. 3. Recognize or explain how plate tectonics has affected the distribution of life, climate, and sea level. 4. Describe the process of Darwinian evolution. 5. Demonstrate a basic knowledge of biodiversity. 6. Recognize and explain taphonomy and the biases inherent in the fossil record. 7. Discuss the major mass extinctions recorded by fossil evidence including potential causes and organisms affected. 8. Compare relative versus absolute time and explain how geologists determine the ages of rocks, fossils, and the Earth. 9. Discuss the development of the geologic time scale. 10. Recognize or explain the history of life on Earth during major time periods and describe major biological innovations through time. 11. Recognize or explain the physical geologic evolution of Earth over time.
College-Wide Student Learning Outcomes	<p>GEOL 2110 learning objectives align with the following NNMCC College Wide Goal:</p> <p><i>Critical thought: Students are required to analyze and synthesize information and draw reasoned conclusions.</i></p>