GEOL& 103 : Historical Geology and the History of Life on Earth with Lab

Credits 5
Introduction to historical geology and paleontology. Studies the formation and development through time of the solid Earth, atmosphere, and biosphere. Covers past movements and locations of the continents and interpretation of past environments as recorded in rock and fossil records as well as the history of life and how living organisms evolved over geologic time from the first single-celled organisms through the first invertebrates, vertebrates and plants, to the dinosaurs, and on to the rise of the mammals and early hominids. Includes the chance to examine fossils of early life, various invertebrates, fish, other prehistoric animals, and ancient plants. Lab included. Field trips may be required. This class may include students from multiple sections. (Natural Sciences with Lab, Elective)

Prerequisites
Eligibility for both ENGL& 101 and MATH 90

Course Outcomes

Describe and explain the scientific method and the basic terminology, principles, concepts, and theories of geology, chemistry, and paleontology as they apply to the study of life on Earth and historical geology.
Outline and explain the biological, chemical and physical evolution of our planet.
Explain the process of fossilization and successfully identify common fossils.
Develop a scientific understanding of the methods used to find and reconstruct fossils of ancient life and their environments and of basic related scientific theories such as evolution.
Identify and distinguish between the three major rock types (i.e. igneous, sedimentary and metamorphic) and explain their geologic distribution, origins, and significance for interpreting past environments.
Explain and discuss the theory of plate tectonics and the past movements and locations of the continents and how these movements effected both the evolution and extinction of past life.
Identify and explain the major eons, eras and periods of the geological time scale, including the major geological events and evolutionary developments that characterize each period of time.