

Geology Course Offerings 2014 -2015

Fall 2014

GEOL 1110 Introduction to Geology: 3 credit hours with Lab

Monday, Wednesday and Friday 9:30 – 10:30 am

Monday, Wednesday and Friday 1:30 – 2:30 pm

This course provides a survey of geology with a focus on geologic processes and materials. Topics include major Earth systems and cycles, Earth materials, rocks and minerals, earthquakes, tsunamis, internal earth processes, geologic environments, mineral and energy resources and geologic time.

This course is offered in a blended learning format that provides a number of ways for you to master the content.

GEOL 2070 Forensic Geology and Geologic Hazards: 3 credit hours

Tuesday and Thursday 11:30 –1:00 PM

During this course you will explore how the geosciences contribute to criminal and military investigations, and to the understanding, prediction and mitigation of geologic hazards. This course is an opportunity to learn about the magnitude, frequency, causes and impacts of geologic hazards such as earthquakes, volcanic eruptions, tsunamis, landslides, and meteor impact. The course also covers prediction, monitoring, assessment and causes of damage; the role of the geosciences in national security, and geological methods used in criminal investigations. Although this is a lecture course, about half of the time we will engage in hands on activities and investigate real-life scenarios.

Winter 2015

GEOL 1110 Introduction to Geology: 3 credit hours with Lab

Monday, Wednesday and Friday 9:30 – 10:30 am

This course provides a survey of geology with a focus on geologic processes and materials. Topics include major Earth systems and cycles, Earth materials, rocks and minerals, earthquakes, tsunamis, internal earth processes, geologic environments, mineral and energy resources and geologic time.

This course is offered in a blended learning format providing you with a number of ways to master the content.

GEOL 2050 Geologic Time: 3 credit hours with Lab

Monday, Wednesday and Friday 1:30 – 2:30 pm

Earth has a 4.5 billion year history. The course explores the evolution of the continents, oceans, atmosphere, climate, and biosphere over geologic time. Learn about the scientific principles, evidence, techniques and technologies for addressing fundamental inquiries such as how oxygen was added to the atmosphere, how and why climates have changed throughout time and the significance to current climate change; how water and salts were added to the oceans, and causes of sea level change; the formation and erosion of mountains; causes and effects of glaciations; theories for the origin of life, and the timing and causes of major extinctions; and the recent importance of humans as geologic agents.

GEOL 2060 Introduction to Mineral Deposits and Mining: 3 credit hours

Tuesday and Thursday 10:00 – 11:30 AM

The course is an introduction to the formation, styles and types of mineral deposits, occurrences, exploration methods, mineral resources and reserves, types of mines, and prospecting methods. We will also investigate what is meant by a social license to mine; and issues and solutions relating to social, economic, and environmental sustainability; environmental assessment, mine closure and reclamation.

GEOL 2100 Mineralogy: Properties, Identification, Occurrences and Uses: 3 credit hours with Lab

Tuesday and Thursday 1:00-2:30 PM

Lab: Thursday 2:30 – 5:30

The systematic study of minerals, their occurrences, and uses. Topics include identification of mineral properties in hand sample, mineral classification, description, physical and chemical properties, and crystallography. These topics are presented within the context of the processes of mineral formation, occurrences and importance to society.