

# GEOLGY (GEOL)

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## **GEOL 1103 Intro to Physical Geology Lab**

Laboratory course to accompany GEOL 1303. Must be taken concurrently with GEOL 1303. Laboratory fee applicable.

TCCN: GEOL 1103

## **GEOL 1105 Environmental Geology Lab**

Laboratory course to accompany GEOL 1305. Must be taken concurrently with GEOL 1305. Laboratory fee applicable.

TCCN: GEOL 1105

## **GEOL 1303 Intro to Physical Geology**

An introductory study of Earth's composition, structure, and internal and external physical processes. Designed to fulfill laboratory science core curriculum requirements. Must be taken concurrently with GEOL 1103.

TCCN: GEOL 1303

## **GEOL 1305 Environmental Geology**

An introductory study of Earth's major resources, including the atmosphere, water, minerals, energy, and biological systems as they relate to the impact of urban development and environmental control. Designed to fulfill laboratory science core curriculum requirements. Must be taken concurrently with GEOL 1105.

TCCN: GEOL 1305

## **GEOL 3320 Petroleum Geology**

Origin, migration and accumulation of petroleum; typical U.S. oil and gas fluids and studies in subsurface geology.

Prerequisites: GEOL 1303/1103.

## **GEOL 3401 Earth Mats: Minerals & Rocks**

An examination of minerals, and rocks; their formation and economic significance. Includes three hours of lab per week. Laboratory fee applicable.

Prerequisites: GEOL 1303/1103 or EPSC 1370/1170.

## **GEOL 3405 Geohydrology**

A study of surface and subsurface hydrology emphasizing geological controls on groundwater flow; quantitative methods of analyzing aquifer systems; regional hydrology; water quality and pollution. Includes three hours of laboratory per week. Laboratory fee applicable.

Prerequisites: Eight hours of Geology.

## **GEOL 3415 Sedimentology & Stratigraphy**

Origin of sediments and sedimentary rocks; transport, deposition, and depositional environments for sediments; field and laboratory studies in description and interpretation of sedimentary rocks; principles of stratigraphy; geologic time and correlation; and sequence stratigraphy. Includes three hours of laboratory per week. Laboratory fee applicable.

## **GEOL 3425 Paleontology and Earth History**

An examination of the geologic history of the Earth focusing on the fossil and rock record. Specifically, this course will consider the development and history of life as documented by the fossil record and earth's history from a stratigraphic perspective. Includes three hours of laboratory per week. Laboratory fee applicable.

Prerequisites: Junior Standing.

## **GEOL 4170 Geology Seminar**

A discussion of research and current topics in the geological sciences.

Prerequisites: Twelve semester hours of Geology.

## **GEOL 4173 UG Res in Geosciences**

A course adapted to the study of special topics in the geosciences.

For advanced students capable of developing a problem independently through conference and research (field and/or laboratory based) directed by the instructor. Problem chosen by the student with approval of the instructor prior to registration. May be repeated not to exceed four semester credit hours total. Laboratory fee, if applicable. (Formerly EPSC 4173-3373)

Prerequisites: Twelve semester hours of Geology.

## **GEOL 4199 Special Topics in Geosciences**

A course involving instruction in geology depending on student interest and specialty of instructor. May be repeated for credit when topic changes. Laboratory fee, if applicable.

Prerequisites: Twelve semester hours of Geology.

## **GEOL 4273 UG Res in Geosciences**

A course adapted to the study of special topics in the geosciences.

For advanced students capable of developing a problem independently through conference and research (field and/or laboratory based) directed by the instructor. Problem chosen by the student with approval of the instructor prior to registration. May be repeated not to exceed four semester credit hours total. Laboratory fee, if applicable. (Formerly EPSC 4173-3373)

Prerequisites: Twelve semester hours of Geology.

## **GEOL 4299 Special Topics in Geosciences**

A course involving instruction in geology depending on student interest and specialty of instructor. May be repeated for credit when topic changes. Laboratory fee, if applicable.

Prerequisites: Twelve semester hours of Geology.

## **GEOL 4373 UG Res in Geosciences**

A course adapted to the study of special topics in the geosciences.

For advanced students capable of developing a problem independently through conference and research (field and/or laboratory based) directed by the instructor. Problem chosen by the student with approval of the instructor prior to registration. May be repeated not to exceed four semester credit hours total. (Formerly EPSC 4173-4473)

Prerequisites: Twelve semester hours of Geology.

## **GEOL 4399 Special Topics in Geosciences**

A course involving instruction in geology depending on student interest and specialty of instructor. May be repeated for credit when topic changes. Laboratory fee, if applicable.

Prerequisites: Twelve semester hours of Geology.

## **GEOL 4460 Intro to Geographic Info Sys**

This course will explore fundamental concepts of geographic information technologies with a focus on applications within the geosciences and natural sciences in general. Students will be exposed to the power of geographic information systems to elucidate complex problems. (Cross-listed with BIOL 4460 and BIOL 5460)

Prerequisites: Senior standing.

**GEOL 4473 UG Res in Geosciences**

A course adapted to the study of special topics in the geosciences. For advanced students capable of developing a problem independently through conference and research (field and/or laboratory based) directed by the instructor. Problem chosen by the student with approval of the instructor prior to registration. May be repeated not to exceed four semester credit hours total. Laboratory fee, if applicable. (Formerly EPSC 4173-3373)

Prerequisites: Twelve semester hours of Geology.

**GEOL 4499 Special Topics in Geosciences**

A course involving instruction in geology depending on student interest and specialty of instructor. May be repeated for credit when topic changes. Laboratory fee, if applicable.

Prerequisites: Twelve semester hours of Geology.