# Geology (GEOL)

# GEOL 5305 Graduate Research Project 3 SCH (0-0-3)

Designed for project option students and requires completion of a research project. Prerequisite: departmental approval. May be repeated for a maximum of 6 semesters hours.

# GEOL 5306 Thesis 3 SCH (3)

Designed for thesis option students. The course requires completion of thesis research. Prerequisite: departmental approval. May be repeated for maximum of 6 semester hours.

# GEOL 5310 Advanced Topics in Geology 1-3 SCH (1-3)

Intensive study at a graduate level of selected advanced topics. May be repeated for credit under different topics.

#### GEOL 5311 Geochemistry 3 SCH (2-3)

Study of the occurrence, distribution and behavior of major and minor elements in the earth's atmosphere, hydrosphere and lithosphere. Prerequisites: GEOL 3409, GEOL 3411, CHEM 1312 and CHEM 1112

# Fee: \$30.00

#### GEOL 5312 Geographic Info Systems 3 SCH (3-0)

Principles and practice of geographic information systems (GIS) using vector-based GIS as the primary software package. Students will demonstrate the use of GIS through individual class projects oriented toward their area of interest.

# GEOL 5313 Advanced GIS 3 SCH (2-3)

Research applications of advanced techniques of Geographic Information Systems. Vector-and raster-based GIS modeling: terrain modeling, hydrological modeling, 3-D modeling: hands-on research topics. GIS programming for problem solving in students research applications. Prerequisite: GEOL 5312 or permission of instructor.

# GEOL 5352 Remote Sensing 3 SCH (3-0)

Principles and practice of remote sensing involving analysis and interpretation of aerial photos and digital images. Students will demonstrate the use of remote-sensed through individual class projects oriented toward their area of interest.