

GEOLOGY

CONCENTRATION

OVERVIEW

The Geology concentration provides comprehensive, broad-based education in Geology, emphasizing a practical and field-oriented approach that is well-suited to professional employment as a geologist in the energy and mining industries, government agencies, consulting firms and other geologic fields. In addition, the Geology concentration provides excellent background for many other professions, including secondary school teachers, science writers, lawyers specializing in environmental and resource issues, and resource or hazards specialists in the construction, insurance, real estate, and securities fields. The Geology concentration provides students with an excellent background for subsequent graduate studies in the geosciences.



CAREERS

- Geologist
- Exploration geologist
- Production geologist
- Mine geologist
- Well-site geologist
- GIS Specialist
- Petrographer
- Laboratory Technician
- Science Writer
- High school or junior high school science teacher (requires additional training in education)

MORE ABOUT GEOLOGY

"The Geology Concentration provides broad-based training in geology with an emphasis on both practical applications and fundamentals of the discipline. Field-oriented, experiential learning is an important part of the program. Students completing this concentration are well-prepared for some types of jobs in petroleum, minerals, and environmental consulting. Many professional geology positions require an M.S. degree and this B.S. program also prepares students well for graduate education in Geology. Completion of this degree develops strong problem solving skills and is therefore excellent background for many other career paths."

-Professor Sally Sutton



FRESHMAN YEAR

Fall Semester

CO 150: College Composition	3
GEOL 150: Physical Geology for Scientists	4
MATH 124: Logarithmic and Exponential Functions	1
MATH 125: Numerical Trigonometry	1
MATH 126: Analytical Trigonometry	1
AUCC 3B: Arts and Humanities	3

Spring Semester

GEOL 154: Historical and Analytical Geology	4
MATH 160: Calculus for Physical Sciences I	4
CHEM 111: General Chemistry I	4
CHEM 112: General Chemistry I Lab	1
AUCC 3E: Global and Cultural Awareness	3

JUNIOR YEAR

Fall Semester

GEOL 344: Sedimentation and Stratigraphy	4
PH 142: Physics for Scientists II or PH 122: General Physics II	5
STAT 301 or STAT 315 or MATH 340	3-4
AUCC 3B: Arts and Humanities	3

Spring Semester

GEOL 372: Structural Geology	4
GEOL 376: Geologic Field Methods	3
NR 319 or NR 322: Geospatial Analysis	4
AUCC 3D: Historical Perspectives	3

Summer Semester

GEOL 436: Summer Field Course	6
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SOPHOMORE YEAR

Fall Semester

GEOL 232: Mineralogy	3
GEOL 332: Optical Mineralogy	2
CHEM 113: General Chemistry II	3
CHEM 114: General Chemistry II Lab	1
AUCC 3C: Social/Behavioral Sciences	3
PH 121: General Physics I or PH 141: Physics for Scientists 1	5

Spring Semester

GEOL 364: Igneous and Metamorphic Petrology	4
GEOL 250: The Solid Earth	3
MATH 161: Calculus for Physical Sciences II	4
CO 300 or JTC 300 or CO 301B	3

SENIOR YEAR

Fall Semester

GEOL 366: Sedimentary Petrology and Geochemistry	4
Technical Elective	3-4
Upper Division Geology Elective	4
Elective	1

Spring Semester

GEOL 454: Geomorphology	4
Upper Division Geology Course	3-4
Electives	5-7

**Additional courses may be required to fulfill prerequisite requirements*

Program Total**120 Credits**