

HYDROGEOLOGY CONCENTRATION

OVERVIEW

The Hydrogeology concentration provides training in geological aspects of water resources and allied disciplines, while ensuring that students are well prepared for a variety of geological fields. Students pursuing this concentration will be particularly well prepared for employment in environmental engineering, water resource, geotechnical and groundwater firms, government agencies managing or assessing water resources, and for subsequent graduate training in hydrogeology or other water resource and management related disciplines.



CAREERS

- Consulting companies (environmental, engineering, or groundwater focused)
- Water Resource Companies
- Geotechnical Firms
- Energy and Mineral Industries
- Local, State, and Federal Agencies
- Non-Profit Agencies

MORE ABOUT HYDROGEOLOGY

"The hydrogeology concentration provides a solid foundation for understanding the occurrence, quantity and quality of groundwater. This concentration combines hydrologic and geologic principles to prepare the student for work with environmental consulting, governmental agencies and graduate school."

-Professor Bill Sanford



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 3C: Social/Behavioral Sciences	3
AUCC 3D: Historical Perspectives	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

JUNIOR YEAR

Fall Semester

GEOL 344: Sedimentation and Stratigraphy	4
WR 416: Land Use Hydrology	3
PH 142 or SOCR 470	3-5
MATH 340: Intro to Ordinary Differential Equations	4

Spring Semester

GEOL 372: Structural Geology	4
GEOL 376: Geologic Field Methods	3
STAT 301 or STAT 315	3
AUCC 3E: Global and Cultural Awareness	3

Summer Semester

GEOL 436: Summer Field Course	6
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SOPHOMORE YEAR

Fall Semester

GEOL 232: Mineralogy	3
CHEM 113: General Chemistry II	3
CHEM 114: General Chemistry II Lab	1
MATH 161: Calculus for Physical Sciences II	4
AUCC 3B: Arts and Humanities	3

Spring Semester

GEOL 364: Igneous and Metamorphic Petrology	4
PH 141: Physics for Scientists I	5
CO 300 or JTC 300 or CO 301B	3
MATH 261: Calculus for Physical Scientists III	4

SENIOR YEAR

Fall Semester

GEOL 452: Hydrogeology	4
GEOL 366: Sedimentary Petrology and Geochemistry	4
Directed Technical Elective	3-4
NR 319 or NR 322: Geospatial Analysis	4

Spring Semester

AUCC 3B: Arts and Humanities	3
GEOL 454: Geomorphology	4
Directed Technical Elective	3-4
Electives	3

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

Program Total**120 Credits**