COURSE WORK REQUIRED FOR THE
B.S. in Geology

Basic Math and Science
Chemistry (two semesters + two labs)
Calculus (four semesters)
Physics (two semesters + two labs)
Computer Programming
Differential Equations

Geology and Geological Engineering
Earth Dynamics
Earth History
Mineralogy + Elementary Petrology
Sedimentology and Stratigraphy
Geomorphology
Geographic Information Systems
Engineering Geophysics
Hydrogeology
Subsurface Site Characterization
Rock Mechanics
Geological Engineering Design
Soil Mechanics
Field Geology (two summer courses)

Geological Engineering Electives
One Geological Engineering Tech elective
Two Engineering Science electives

Engineering Science
Statics
Engineering Analysis
Mechanics of Materials
Fluid Mechanics
Soil Mechanics
Engineering Geology

Liberal Arts
Freshman Composition (two semesters)
Humanities course
Social Sciences course
Fine Arts course
Two more Social Sciences/Humanities/Fine Arts courses
Engineering Economics

120 Carrier Hall
University of Mississippi
662-915-7498
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* The B.S. in Geological Engineering program is accredited by the Engineering Accreditation Commission of ABET.

COURSE WORK REQUIRED FOR THE
B.S. in Geological Engineering*

Basic Math and Science
Chemistry (two semesters + two labs)
Calculus (two semesters)
Physics (two semesters + two labs)
Computer Programming
Engineering Analysis

Geology
Earth Dynamics
Earth History
Environmental Geology
Mineralogy + Elementary Petrology
Sedimentology and Stratigraphy
Engineering Geology
Structural and Tectonic Geology
Geomorphology
Paleontology
Optical Mineralogy
Hydrogeology
Geographic Information Systems
Subsurface Site Characterization
Field Geology (two summer courses)

Geology Electives
One elective from the following list:
• Environmental Geochemistry
• Engineering Geophysics

One elective from the following list:
• Any Geology/Geological Engineering/Engineering class at the 300 level or above

Two other electives from additional classes

Liberal Arts
Freshman Composition (two semesters)
Social Sciences (two semesters)
Humanities (two semesters)
Applied Writing
Fine Arts course
Speech course
Engineering Economics

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Scholarships

In addition to the many scholarships provided by the University of Mississippi (finaid.olemiss.edu/scholarships), other opportunities include:

- Numerous scholarships and fellowships available from the School of Engineering
- The Academic Common Market, an out-of-state tuition waiver available for B.S. in Geological Engineering students through the Southern Regional Education Board for residents of Alabama, Arkansas, Georgia, Kentucky, Louisiana, Maryland, Oklahoma, South Carolina, Tennessee, Virginia and West Virginia: olemiss.edu/info/acm
- MESC/MTAG scholarships available for Mississippi residents
- C.D. King Memorial Scholarship
- B. Beckman Society of Women Engineers Scholarship
- J.G. Douglas Scholarship
- Department and Field Camp scholarships

Median Salaries

The median annual wage for geoscientists was $89,780 in May 2016.

Median annual salaries for geoscientists in the top industries:

- Oil and gas extraction: $128,980
- Engineering services: $78,250
- Management, scientific and technical consulting services: $74,890
- State government: $71,820
- Colleges, universities and professional schools; state, local and private: $62,270

Employment of geoscientists is projected to grow 10 percent from 2014 to 2024, faster than the average for all occupations.

*All statistics taken from: bls.gov/ooh/life-physical-and-social-science/geoscientists

Engineering geologists apply geologic principles to civil and environmental engineering. They investigate geological factors that affect engineering structures such as buildings, bridges, airports and dams. They offer advice on major construction projects and help with other projects, such as environmental cleanup and reducing natural hazards.

Environmental geologists work to solve problems with waste disposal, pollution, urban development and hazards such as flooding and erosion.

Environmental hydrologists identify the extent of groundwater contamination problems and design a system to remove the contamination.

Geotechnical engineers work for consulting companies specializing in environmental remediation.

Petroleum geologists are involved in the exploration and production of oil and natural gas.

Mapping and resource assessment geologists work for state or federal government agencies.

Consulting engineers or geologists assess hazard potential due to an earthquake, flood, landslide or unfavorable site geology.

Hydrologists identify a suitable source for community water needs.

Marine geologists/oceanographers investigate the oceans and continental shelves.

Government inspectors work on construction projects in difficult geological terrains.

Research scientists work for a university-based research institution.

Bankers specialize in resource evaluation as loan collateral.

Attorneys specialize in natural resource or environmental law.

Secondary school teachers or university professors teach in any of a dozen geological subdisciplines.