

B.S.G.E. in Geological Engineering

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Description

The B.S. degree in geological engineering prepares students for productive careers as professional geological engineers engaged in continuous professional growth along their chosen career paths or prepares students for admission into graduate degree programs or professional schools.

Minimum Total Credit Hours: 137

Goals/Mission Statement

The goals of the B.S.G.E. program are an outgrowth of and consistent with The University of Mississippi mission statement and the vision statements of The University of Mississippi strategic plan, Ole Miss through 2010: A Guide for the Journey. While recognizing that the primary goal is to educate students whose careers will serve the state of Mississippi, it is our goal to train students whose professional careers will also serve the needs of the nation and the world in geological engineering and related fields. Past graduates of the program have found professional positions in a range of industries: (1) geotechnical, (2) environmental, (3) geospatial information science and technology, (4) graduate education, (5) earth resources extraction, and (6) hydrology. Future graduates are expected to serve the same range of industries. The objectives of the B.S.G.E. program are to prepare graduates:

- Capable of conducting productive careers as professional geological engineers engaged in continuous professional growth along their chosen career paths;
- Knowledgeable in fundamental mathematics, chemistry, and physics, in preparation for advanced instruction and professional practice in geological engineering;
- With demonstrated knowledge of the engineering sciences, geological sciences, and geological engineering design fundamentals that are the core of the geological engineering profession;
- Well-versed in the liberal arts and capable of effective written and oral communication;
- Familiar with modern technology and modern scientific and engineering practice, and prepared to engage in lifelong learning to remain vital in the profession;
- With demonstrated ability to design and communicate creative solutions to practical problems that are effective, ethical, environmentally sound, cognizant of public safety requirements, and economically feasible.

General Education Requirements

In addition to the courses specified by the School of Engineering general education requirements, the following are required: Math 263-264 and Math 353; laboratory science to be fulfilled by Chem 105, 106, 115, 116 and Phys 211, 212, 221, 222. Students must complete 18 hours of general education requirements as specified by the School of Engineering, with the added requirement that a student complete at least one two-course sequence from a department. Three of the credit hours in social sciences must be Econ 310.

Course Requirements

Specific requirements for the B.S.G.E. include CSci 251; C E 431; Engr 207, 309, 312, 323, 340, 453; Geol 103, 221, 222, 303, 305, 314; G E 234; 440, 420, 421, 437, 450, 470. Two engineering science electives must be selected from Engr 360 or 362; Engr 321; or C E 472. Two geological engineering technical electives must be selected from G E 405, 440, 460, 490, 503, 507, 510, 511, 513, C E 471 or C E 325, Engr 310, Engr 313. Please see department for advice.

Other Academic Requirements

Students in the Department of Geology and Geological Engineering are required to take the Fundamentals of Engineering examination prior to awarding of the baccalaureate degree.

