The B.S. degree is offered for undergraduates who wish to become professional geoscientists either after their bachelor’s degree or after subsequent graduate study. It trains students in the essential observational and analytical skills of field geology as well as more applied areas of microscope petrology, geochemistry, and geotechnology. The B.S. degree is designed to give the student a broad and comprehensive understanding of the discipline of geology and a firm background in math, physics, and chemistry. Students must fulfill 8 of the 9 University General Education Objectives (a minimum of 36 credits—see the General Education Requirements (http://coursecat.isu.edu/undergraduate/academicinformation/generaleducation) in the Academic Information section of this catalog).

### Code | Title | Credits
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MATH 1170 | Calculus I | 4
MATH 1175 | Calculus II | 3-4
or MATH 3350 | Statistical Methods | 3-4
CHEM 1111 & 1111L | General Chemistry I and General Chemistry I Lab | 5
CHEM 1112 & 1112L | General Chemistry II and General Chemistry II Lab | 4
PHYS 1111 | General Physics I 1 | 3-4
or PHYS 2211 | Engineering Physics I | 3
GEOL 1107 | Real Monsters 2 | 3
GEOL 2204 | Fluid Earth | 4
GEOL 2205 | Solid Earth | 4
GEOL 3310 | Geologic Field Methods | 3
GEOL 3313 | Earth Materials I | 3
GEOL 3314 | Earth Materials II | 3
GEOL 3315 | Evolution of the Earth's Surface | 4
GEOL 4403 & 4403L | Principles of Geographic Information Systems and Principles of GIS Laboratory | 3
GEOL 4421 & 4421L | Structural Geology and Structural Geology Laboratory | 4
GEOL 4450 Field Geology 3 | 6
GEOL 4452 | Sedimentation-Stratigraphy | 4

42 required geoscience credits plus upper division geoscience elective courses to equal at least 50 geoscience credits.

1. May choose the following optional courses: PHYS 1113, PHYS 1114, General Physics Laboratory, 2 cr; PHYS 2213, PHYS 2214, Engineering Physics Laboratory, 2 cr.
2. Transfer students may substitute other courses for GEOL 1107 with the permission of the Geosciences Department Chair or Geosciences Undergraduate Advisor.
3. GEOL 4450 is a 5-week summer field course, usually taken between the junior and senior years.