GEOPHYSICS - BS

Program Requirements

First Year
Fall
GEOL 150 Introduction to the Solid Earth 4
GEOL 180 Introduction to Geology and Geophysics 1
CHEM 107 General Chemistry for Engineering Students 4
& CHEM 117 General Chemistry for Engineering Students Laboratory 4
ENGL 104 Composition and Rhetoric 3
MATH 151 Engineering Mathematics I 4

Semester Credit Hours 16

Spring
GEOL 152 History of the Earth 4
MATH 152 Engineering Mathematics II 4
Select one of the following:
American history (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#american-history)
Government/Political science (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#government-political-science)

Communication elective (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#communication) 3

Semester Credit Hours 14

Second Year
Fall
GEOL 203 Mineralogy 4
GEOL 210 Geological Communication 3
MATH 251 Engineering Mathematics III 3
PHYS 206 Newtonian Mechanics for Engineering and Science 3
PHYS 226 Physics of Motion Laboratory for the Sciences 1

Semester Credit Hours 14

Spring
GEOL 304 Igneous and Metamorphic Petrology 4
GEOL 250 Geological Field Methods 4
MATH 308 Differential Equations 3
PHYS 207 Electricity and Magnetism for Engineering and Science 3
PHYS 227 Electricity and Magnetism Laboratory for the Sciences 1

Semester Credit Hours 15

Third Year
Fall
GEOP 341 Fundamentals of Geophysics 3
GEOL 306 Sedimentology and Stratigraphy 4
MATH 311 Topics in Applied Mathematics I 3
PHYS 221 Optics and Thermal Physics 3
Select one of the following:
American history (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#american-history)
Government/Political science (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#government-political-science)

Semester Credit Hours 16

Spring
GEOL 312 Structural Geology and Tectonics 4
GEOP 313 Geophysical Field Methods 4
GEOP 361 Geophysical Signal Processing 3
Select one of the following:
American history (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#american-history)
Government/Political science (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#government-political-science)

Technical elective 1 3

Semester Credit Hours 17

Fourth Year
Fall
GEOP 421 Seismology 4
GEOP 413 Near-surface Geophysics 3
GEOL 450 Geology Senior Project 3
Language, philosophy and culture elective (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#language-philosophy-culture) 2

Semester Credit Hours 13

Spring
Select one of the following:
American history (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#american-history)
Government/Political science (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#government-political-science)

Creative arts elective (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#creative-arts) 2
Social and behavioral science elective (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#social-behavioral-sciences) 2
Geophysics elective 3 3
Technical electives 1 3

Semester Credit Hours 15

Total Semester Credit Hours 120

1 Any science, math or engineering course that augments the degree with the approval of the advisor.
2 The Graduation requirements include a requirement for three hours of international and cultural diversity courses and three hours of cultural discourse courses. A course satisfying a Core category, a college/
department requirement, or a free elective can be used to satisfy this requirement. See academic advisor.

3 Any approved 400-level geophysics course not already required.