GEOPHYSICS - BS

Program Requirements

First Year

Fall		**Semester Credit Hours**
GEOL 150	Introduction to the Solid Earth	4
GEOL 180	Introduction to Geology and Geophysics	1
CHEM 107 & CHEM 117	General Chemistry for Engineering Students and 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:		3
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:		3
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:		3
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]		3
	Semester Credit Hours	**13**
Spring		
Select one of the following:		3
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]		3
Social and behavioral science elective (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#social-behavioral-sciences) [2]		3
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.