

# 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
<b>Semester Credit Hours</b>		<b>16</b>

### Spring

GEOL 152	History of the Earth	4
MATH 152	Engineering Mathematics II	4
Select one of the following:		3
American history ( <a href="http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#american-history">http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#american-history</a> )		
Government/Political science ( <a href="http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#government-political-science">http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#government-political-science</a> )		
Communication elective ( <a href="http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#communication">http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#communication</a> )		3
<b>Semester Credit Hours</b>		<b>14</b>

### Second Year

Fall		Semester Credit Hours
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
<b>Semester Credit Hours</b>		<b>14</b>

### 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
<b>Semester Credit Hours</b>		<b>15</b>

### Third Year

Fall		Semester Credit Hours
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 ( <a href="http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#american-history">http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#american-history</a> )		
Government/Political science ( <a href="http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#government-political-science">http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#government-political-science</a> )		

### 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 ( <a href="http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#american-history">http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#american-history</a> )		
Government/Political science ( <a href="http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#government-political-science">http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#government-political-science</a> )		
Technical elective <sup>1</sup>		3
<b>Semester Credit Hours</b>		<b>17</b>

### Fourth Year

Fall		Semester Credit Hours
GEOP 421	Seismology	4
GEOP 413	Near-surface Geophysics	3
GEOL 450	Geology Senior Project	3
Language, philosophy and culture elective ( <a href="http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#language-philosophy-culture">http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#language-philosophy-culture</a> ) <sup>2</sup>		3
<b>Semester Credit Hours</b>		<b>13</b>

### Spring

Select one of the following:		3
American history ( <a href="http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#american-history">http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#american-history</a> )		
Government/Political science ( <a href="http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#government-political-science">http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#government-political-science</a> )		
Creative arts elective ( <a href="http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#creative-arts">http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#creative-arts</a> ) <sup>2</sup>		3
Social and behavioral science elective ( <a href="http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#social-behavioral-sciences">http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#social-behavioral-sciences</a> ) <sup>2</sup>		3
Geophysics elective <sup>3</sup>		3
Technical electives <sup>1</sup>		3
<b>Semester Credit Hours</b>		<b>15</b>
<b>Total Semester Credit Hours</b>		<b>120</b>

<sup>1</sup> Any science, math or engineering course that augments the degree with the approval of the advisor.

<sup>2</sup> 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/

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department requirement, or a free elective can be used to satisfy this requirement. See academic advisor.

<sup>3</sup> Any approved 400-level geophysics course not already required.