

# REQUIREMENTS FOR THE BACHELOR OF SCIENCE IN GEOPHYSICS

## COLLEGE OF EARTH AND ENERGY

### THE UNIVERSITY OF OKLAHOMA

For Students Entering the Oklahoma State System for Higher Education  
**Summer 2012 through Spring 2013**

#### GENERAL REQUIREMENTS

Total Credit Hours . . . . . **130•**  
 Total Upper-Division Credit Hours . . . . . **48**  
**Minimum Retention/Graduation Grade Point Averages:**  
 Minimum in OU Coursework . . . . . **2.00**  
 Minimum in Major Coursework- Combined and OU . . . . . **2.00**  
 Overall - Combined and OU . . . . . **2.00**

#### Geophysics— Exploration Option

**B480**  
Bachelor of Science  
in Geophysics

**OU encourages students to complete at least 33 hours of applicable coursework each year to have the opportunity to graduate in four years.**

Year	FIRST SEMESTER	Hours	SECOND SEMESTER	Hours
<b>FRESHMAN</b>	<b>ENGL 1113</b> , Principles of English Composition (Core I)	3	<b>ENGL 1213</b> , Principles of English Composition (Core I), <b>or</b>	3
	<b>MATH 1823</b> , Calculus & Analytic Geometry I (Core I)	3	<b>EXPO 1213</b> , Expository Writing (Core I)	3
	<b>CHEM 1315</b> , General Chemistry (Core II)	5		
	<b>HIST 1483 or 1493</b> , U.S. (Core IV)	3	<b>MATH 2423</b> , Calculus & Analytic Geometry II	3
	<b>GEOL 1114</b> , Physical Geology for Science & Engineering Majors	4	<b>CHEM 1415</b> , General Chemistry	5
			<sup>2</sup> <b>GEOL</b> Elective	3
	<b>TOTAL CREDIT HOURS</b>	<b>18</b>	<b>TOTAL CREDIT HOURS</b>	<b>14</b>
<b>SOPHOMORE</b>	<b>MATH 2433</b> , Calculus & Analytic Geometry III	3	<b>MATH 2443</b> , Calculus & Analytic Geometry IV	3
	<b>PHYS 2514</b> , General Physics for Engineering & Science Majors (Core II)	4	<b>PHYS 2524</b> , General Physics for Engineering & Science Majors	4
	<b>C S 1313</b> , Programming for Non-Majors	3	<b>P SC 1113</b> , American Federal Government (Core III)	3
	<b>GEOL 2224</b> , Introduction to Mineral Sciences	4	<b>GEOL 3233</b> , Sedimentary Petrology and Sedimentology	3
	<sup>1</sup> General Education Western Civilization & Culture (Core IV)	3	<sup>1</sup> General Education Understanding Artistic Forms (Core IV)	3
	<b>TOTAL CREDIT HOURS</b>	<b>17</b>	<b>TOTAL CREDIT HOURS</b>	<b>16</b>
<b>JUNIOR</b>	<b>MATH 3113</b> , Introduction to Ordinary Differential Equations	3	<b>PHYS 3043</b> , Physical Mechanics I	3
	<b>GEOL 3114</b> , Structural Geology	4	<b>GEOL 3123</b> , Introductory Field Geology	3
	<b>GPHY 4413</b> , Global Geophysics	3	Math Elective (upper-division)	3
	Free Elective	5	Geology Elective (upper-division)	3
	Physics Elective (upper-division)	3	<sup>1</sup> General Education Social Sciences (Core III)	3
	<b>TOTAL CREDIT HOURS</b>	<b>18</b>	<b>TOTAL CREDIT HOURS</b>	<b>15</b>
<b>SENIOR</b>	<b>ENGL 3153</b> , Technical Writing, <b>or</b>	3	Geology Elective (upper-division)	3
	<sup>3</sup> <b>GEOL 3333</b> , Geowriting	3	Geophysics Elective (upper-division)	3
	<b>GPHY 4874</b> , Seismic Exploration	4	Geophysics Elective (upper-division)	3
	<b>GPHY 5864</b> , Gravimetric & Magnetic Exploration	4	<sup>1</sup> General Education Non-Western Culture (Core IV)	3
	Physics Elective (upper-division)	3		
	Geophysics Elective (upper-division)	3		
	<b>TOTAL CREDIT HOURS</b>	<b>17</b>	<b>TOTAL CREDIT HOURS</b>	<b>12</b>
<b>SUMMER</b>		<b>GPHY 4133</b> , Colorado Field Experience (Capstone) — 3 HOURS		

- = Students who have not completed two years of the same foreign language in high school are required to take two college courses in the same foreign language. This additional coursework may add 6-10 hours to the minimum hours required for graduation.
- ‡ = In order to progress in your curriculum, and as a specific graduation requirement, a grade of C or better is required in each major course. The requirement includes both Geology (GEOL) and Geophysics (GPHY) courses. Students must also successfully complete **major** prerequisite courses with a grade of C or better before proceeding to the next course.
- <sup>1</sup> = To be chosen from the University-Wide General Education Approved Course List. Three hours of general education outside the major must be upper-division.
- <sup>2</sup> = One Geology course from the following: 1003, 1013, 1024, 1133, 3154, 3633, 4213, 4533, or other non-required geology courses as approved by adviser (notation must be placed on Degree Navigator). Upper-division courses require additional prerequisites.
- <sup>3</sup> = GEOL 3333 is taught on an irregular basis and may be substituted for ENGL 3513, Technical Writing.

#### University-Wide General Education Requirements (minimum 40 hours)

Courses designated as Core I, II, III, IV, or Capstone are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list, including at least one upper-division Gen. Ed. course outside of the student's major. Courses graded S/U or P/NP will not apply.

<b>Core I</b>	<b>Symbolic and Oral Communication (9–19 hours, 3–5 courses)</b> <ul style="list-style-type: none"> <li>• English Composition—6 hours, 2 courses</li> <li>• Mathematics—3 hours, 1 course</li> <li>• Foreign Language—0–10 hours, 2 courses in the same language, (can be met by successfully completing 2 years of the same foreign language in high school)</li> <li>• Other (courses such as communication, logic or public speaking)</li> </ul>
<b>Core II</b>	<b>Natural Science (7 hours, 2 courses)</b> <ul style="list-style-type: none"> <li>• Courses must be taken from different disciplines in the biological and/or physical sciences; one of which must include a laboratory.</li> </ul>
<b>Core III</b>	<b>Social Science (6 hours, 2 courses)</b> <ul style="list-style-type: none"> <li>• One course must be P SC 1113, "American Federal Government"</li> </ul>
<b>Core IV</b>	<b>Humanities (12 hours, 4 courses)</b> <ul style="list-style-type: none"> <li>• Understanding Artistic Forms—3 hours, 1 course</li> <li>• Western Civilization and Culture—6 hours, 2 courses, including HIST 1483 or HIST 1493</li> <li>• Non-Western Cultures—3 hours, 1 course</li> </ul>
<b>Senior Capstone Experience (3 hours, 1 course)</b>	