

# 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 2010 through Spring 2011**

#### GENERAL REQUIREMENTS

Total Credit Hours . . . . . **128\*‡**  
 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— General Option

**B481**  
Bachelor of Science  
in Geophysics

**OU encourages students to complete at least 32 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>	ENGL 1113, Principles of English Composition (Core I)	3	ENGL 1213, Principles of English Composition (Core I), <b>or</b>	3
	MATH 1823, Calculus & Analytic Geometry I (Core I)	3	EXPO 1213, Expository Writing (Core I)	
	CHEM 1315, General Chemistry (Core II)	5		
	HIST 1483 or 1493, U.S. (Core IV)	3	MATH 2423, Calculus & Analytic Geometry II	3
	GEOL 1114, Physical Geology for Science and Engineering Majors	4	CHEM 1415, General Chemistry	5
			<sup>5</sup> GEOL Elective	3-4
	<b>TOTAL CREDIT HOURS</b>	<b>18</b>	<b>TOTAL CREDIT HOURS</b>	<b>14-15</b>
<b>SOPHOMORE</b>	MATH 2433, Calculus & Analytic Geometry III	3	MATH 2443, Calculus & Analytic Geometry IV	3
	PHYS 2514, General Physics for Engineering & Science Majors (Core II)	4	PHYS 2524, General Physics for Engineering & Science Majors	4
	<sup>4</sup> C S 1313, Programming for Non-Majors	3	P SC 1113, American Federal Government (Core III)	3
	GEOL 2224, Introduction to Mineral Sciences	4	GEOL 3233, 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>	<sup>2</sup> MATH 3113, Introduction to Ordinary Differential Equations	3	GEOL 3123, Introductory Field Geology	3
	<sup>2</sup> PHYS 3043, Physical Mechanics I	3	Math Elective (upper-division)	3
	GEOL 3114, Structural Geology	4		
	<sup>6</sup> One of the following: (see note below)	3	Geology Elective (upper-division)	3
	GPHY4413, Global Geophysics			
	GEOL4223, Principles of Geochemistry		<sup>3</sup> Free Elective	3-4
	Physics Elective (upper-division)	4	<sup>1</sup> General Education Social Sciences (Core III)	3
	<b>TOTAL CREDIT HOURS</b>	<b>17</b>	<b>TOTAL CREDIT HOURS</b>	<b>15-16</b>
<b>SENIOR</b>	ENGL 3153, Technical Writing	3	GPHY 4953, Senior Thesis in Geophysics (Capstone)	3
	GPHY 5713, Solid Earth Geophysics	3	Geology Elective (upper-division)	3
	<sup>2</sup> Physics Elective (upper-division)	3	Geophysics Elective (upper-division)	3
	Geophysics Elective (upper-division)	3	Geophysics Elective (upper-division)	3
	Geophysics Elective (upper-division)	3	<sup>1</sup> General Education Non-Western Culture (Core IV)	3
	<b>TOTAL CREDIT HOURS</b>	<b>15</b>	<b>TOTAL CREDIT HOURS</b>	<b>15</b>

\* = 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> = Fulfills the additional science requirement for graduation.

<sup>3</sup> = Three hours of faculty-adviser approved elective.

<sup>4</sup> = This course fulfills the Computer Literacy Requirement for graduation as required by the Oklahoma State Regents for Higher Education.

<sup>5</sup> = One Geology course from the following: 1003, 1013, 1024, 1133, 1203, 3633, 4213, 4533, or other non-required courses as approved by adviser. Upper-division courses require additional prerequisites.

<sup>6</sup> = Only one of the following courses is required. GPHY 4413 is taught alternate fall semesters; GEOL 4223 is taught alternate spring semesters.

**NOTE:** No more than 52 hours of Geophysics coursework may be taken to fulfill the 128 minimum total credit hours required. Students must complete 36 of the last 60 credit hours in residence.

#### 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> • English Composition—6 hours, 2 courses • Mathematics—3 hours, 1 course • 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) • Other (courses such as communication, logic or public speaking)
<b>Core II</b>	<b>Natural Science (7 hours, 2 courses)</b> • Courses must be taken from different disciplines in the biological and/or physical sciences; one of which must include a laboratory.
<b>Core III</b>	<b>Social Science (6 hours, 2 courses)</b> • One course must be P SC 1113, "American Federal Government"
<b>Core IV</b>	<b>Humanities (12 hours, 4 courses)</b> • Understanding Artistic Forms—3 hours, 1 course • Western Civilization and Culture—6 hours, 2 courses, including HIST 1483 or HIST 1493 • Non-Western Cultures—3 hours, 1 course
<b>Senior Capstone Experience (3 hours, 1 course)</b>	