

Required Courses for Students Majoring in Earth Sciences in the College of Earth Sciences (applicable to students admitted in Fall 2008)

Academic Year Semester Course Titles	First Year		Second Year		Third Year		Fourth Year	
	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring
Common Required Courses (30)	Chinese (3)	Chinese (3)	History (2)					
	Foreign Language s (3)	Foreign Language s (3)						
	<ul style="list-style-type: none"> ● 16 credit hours of General Education courses, of which one course must be from each of the following core areas: Humanities & Thought, Physical Science (excluding The Earth), Applied Science, and Social Thought & Phenomenon. The remaining courses may be General Education electives. ● One non-credit Physical Education course each semester of their first three academic years, two of which must be Freshman PE I and Freshman PE II. ● One non-credit Service Education course in the fall and spring semester of an academic year. 							
Required Courses of the Department (64)	Calculus MA1003 (3)	Calculus MA1004 (3)	Applied Mathematic s GP2019 (3)	Applied Mathematic s GP2020 (3)	Geophysics I: Seismology GP3089 (3)	Geophysics II GP3090 (3)	Special Topics in Earth Science I GP4097 (1)	Special Topics in Earth Science II GP4098 (1)
	General Physics PH1001 (3)	General Physics PH1002 (3)	Mechanics GP2001 (3)	Electricity and Magnetism GP2013 (3)	Sedimentary Geology GP3087 (2)	Structural Geology GP3024 (3)		
	General Geology GP2031 (2)	General Geology GP2032 (2)	Mineralogy GP2036 (3)	Petrology GP2065 (2)	*Time Series Analysis GP3052 (3)	*Statistics GP3072 (3)		
	Practice in General Geology GP2033 (1)	Practice in General Geology GP2034 (1)	Mechanics of Geological Material GP2059 (2)	Geophysical Prospecting GP3017 (2)	Geophysical Prospecting GP3018 (2)	*Numerical Analysis GP3053 (3)		
	General Physics Laboratory PH1023 (1)	General Chemistry CM1006 (3)		Practice in Geophysical Prospecting GP3019 (1)	Practice in Geophysical Prospecting GP3020 (1)			
		General Chemistry Laboratory CM1008 (1)						
Total Semester Credit Hours	16	19	11	11	8	6	1	1

Notes	<ol style="list-style-type: none"> 1. The numerical figures in parentheses refer to course credit hours; the calculation of semester hours may not include credit hours earned from General Education courses or History or courses marked with an asterisk (*). 2. The minimum number of earned credit hours required for graduation is 138, of which 94 credit hours must be from the table of required courses listed above; students are required to earn a minimum of 23 credit hours of elective courses offered by this Department. 3. Students are also required to take Introduction to Earth System Sciences (2) and meet one of the following additional requirements during their term of study at the University: <ol style="list-style-type: none"> (1) Complete 20 credit hours of courses offered by the non-degree Environment and Earth Sciences Program in the College of Earth Sciences; (2) Complete 20 credit hours of courses offered by the non-degree Earth Sciences Information Program in the College of Earth Sciences; (3) Complete 16 credit hours of courses offered by the College of Earth Sciences, the College of Science, the College of Engineering, and the College of Electrical Engineering and Computer Science. 4. A maximum of 16 credit hours earned from General Education Courses may be counted towards the minimum number of earned credit hours required for graduation. 5. First-year students may take any of the following to fulfill the University's foreign language requirement: (1) Freshman English; (2) other English courses offered by the English department; (3) six course credit hours of an alternative second-language offered or accredited by the Language Center. 6. Students are required to take an English proficiency test recognized by the Language Center and obtain a threshold score that meets the standard set by the Center, or receive a passing grade in two semesters of Remedial English before qualifying for graduation; course credit hours thus earned cannot be counted toward the student's minimum baccalaureate graduation requirements (please refer to the University's <i>Implementation Procedures for Freshman Foreign Language Courses</i> and <i>Implementation Procedures for Remedial English Courses</i> for the standard required by the Language Center). 7. Students are required to take at least one of the following courses before qualifying for graduation: Numerical Analysis (GP3053), Time Series Analysis (GP3052), and Statistics (GP3072). The three credit hours for this course may not be included in the calculation of Total Semester Credit Hours but may be included in the calculation of Required Courses of the Department. 8. Students must take (but are not required to pass) either Oceanography (GP4095) or Earth Hydrological Cycle (GP3086). 9. Students must take (but are not required to pass) either Fundamentals of Geotechnical Engineering (GP3085) or Environment and Earth Sciences (GP3088). 10. Students are required to receive a passing grade in Service Education in accordance with the University's <i>Service Education Implementation Procedures</i> before being permitted to graduate.
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