

REQUIREMENTS FOR THE BACHELOR OF SCIENCE
MEWBORNE COLLEGE OF EARTH AND ENERGY
THE UNIVERSITY OF OKLAHOMA

Academic Year
For Students Entering the Oklahoma State System for Higher Education Summer 2022 through Spring 2023

General Requirements	
Minimum Total Credit Hours	120
Minimum Upper-Division Hours	48
Minimum Retention/Graduation Grade Point Averages:	
Overall - Combined and OU	2.50
Major - Combined and OU	2.50

Program
Geophysics
B481
Bachelor of Science

OU encourages students to complete at least 30 hours of applicable coursework each year to have the opportunity to graduate in 4 years.

GENERAL EDUCATION AND COLLEGE REQUIREMENTS

Courses for fulfillment of General Education and college requirements must be from the approved General Education course list at <http://www.ou.edu/content/gened/courses.html>. **Courses graded P/NP will not apply**

UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

At least three hours of Upper-Division General Education coursework must be completed **outside the major**.

Code	Title	Credit Hours
Core Area I: Symbolic and Oral Communication		
<i>English Composition (6 hours)</i>		
ENGL 1113	Principles of English Composition	3
ENGL 1213	Principles of English Composition	3
or EXPO 1213	Expository Writing	
<i>Language (0-10 hours)</i>		
(0-10 hours in the same language) Students who have not completed two years of the same language in high school are required to take two college courses in the same language		
Beginning Course		0-5
Beginning Course, continued		0-5
<i>Mathematics (minimum 3 hours)</i>		
MATH 1914	Differential and Integral Calculus I ¹	3-4
or MATH 1823	Calculus and Analytic Geometry I	
Core Area II: Natural Science (minimum 7 hours, 2 courses)		
CHEM 1315	General Chemistry (Science with Lab) ¹	5
or CHEM 1335	General Chemistry I: Signature Course	
PHYS 2514	General Physics for Engineering and Science Majors ¹	4
Core Area III: Social Science (6 hours)		
P SC 1113	American Federal Government	3
Choose one course from the General Education Social Science list		
		3
Core Area IV: Arts and Humanities - one must be Upper Division (3000-4000-level)		
<i>Artistic Forms (3 hours)</i>		
Choose one course from the General Education Artistic Forms list.		
		3
<i>Western Culture (6 hours)</i>		
HIST 1483	United States to 1865	3
or HIST 1493	United States, 1865 to the Present	
Choose one course from the General Education Western Culture list (Excluding HIST 1483 and HIST 1493)		
		3
<i>World Culture (3 hours)</i>		
Choose one course from the General Education World Culture list		
		3
Core Area V: First Year Experience (3 hours)		
Choose one course		
		3
Total Credit Hours		39-50

¹Mewborne College of Earth and Energy Sciences requirements that also satisfy University General Education requirements.

ADDITIONAL MEWBORNE COLLEGE OF EARTH & ENERGY REQUIREMENT

Code	Title	Credit Hours
PHYS 2524	General Physics for Engineering and Science Majors	4
Total Credit Hours		4

FREE ELECTIVES

Electives to bring total applicable hours to 120 including 48 upper-division hours.

MAJOR REQUIREMENTS

In order to progress in your curriculum, and as a specific graduation requirement, a grade of C or better is required in each course listed in the curriculum. All prerequisite courses must also be completed with a grade of C or better before proceeding to the next course.

Code	Title	Credit Hours
GEOL 1114	Physical Geology for Science and Engineering Majors	4
GEOL 1124	Earth History	4
GEOL 2224	Introduction to Mineral Sciences	4
GEOL 3233	Sedimentary Petrology and Sedimentology	3
GEOL 3114	Structural Geology	4
GEOL 3123	Introductory Field Geology	3
GPHY 2013	Frontiers of Geophysics	3
GPHY 3013	Data Analysis in Geoscience	3
GPHY 4133	Colorado Field Geophysics	3
GPHY 4413	Global Geophysics	3
GPHY 4553	Introduction to Seismology	3
GPHY 4874	Seismic Exploration	4
9 hours of Upper-Division Geophysics Electives		9
3 hours of Upper-Division Geology Electives		3
Total Credit Hours		53

MAJOR SUPPORT REQUIREMENTS

Code	Title	Credit Hours
MATH 2924	Differential and Integral Calculus II ¹	4
MATH 2934	Differential and Integral Calculus III ¹	4
MATH 3113	Introduction to Ordinary Differential Equations	3
3 hours Upper-Division MATH elective		3
PHYS 3043	Physical Mechanics I	3
ENGL 3153	Technical Writing	3
or GEOL 3333	Geowriting	
Total Credit Hours		20

¹MATH 1823, MATH 2423, MATH 2433, and MATH 2443 may be substituted for MATH 1914, MATH 2924 and MATH 2934.

More information in the catalog: (<http://ou-public.courseleaf.com/mewbourne-earth-energy/geosciences/geophysics-bachelor-science/>).

SUGGESTED SEMESTER PLAN OF STUDY

Students who have not completed two years of the same language in high school are required to take two college courses in the same 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 course listed in the curriculum. Students must also successfully complete all prerequisite courses with a grade of C or better before proceeding to the next course.

Year	FIRST SEMESTER		Hours	SECOND SEMESTER		Hours
FRESHMAN	GEOL 1114	Physical Geology for Science and Engineering Majors	4	GPHY 2013	Frontiers of Geophysics	3
	ENGL 1113	Principles of English Composition (Core I)	3	ENGL 1213 or EXPO 1213	Principles of English Composition (Core I) or Expository Writing	3
	MATH 1914	Differential and Integral Calculus I (Core I) ¹	4	MATH 2924	Differential and Integral Calculus II ¹	4
		First Year Experience (Core V) ³	3	CHEM 1315	General Chemistry ²	5
	CREDIT HOURS		14	CREDIT HOURS		15
SOPHOMORE	GEOL 2224	Introduction to Mineral Sciences	4	GEOL 1124	Earth History	4
	MATH 2934	Differential and Integral Calculus III ¹	4	GEOL 3233	Sedimentary Petrology and Sedimentology	3
	PHYS 2514	General Physics for Engineering and Science Majors (Core II)	4	GPHY 3013	Data Analysis in Geoscience	3
	HIST 1483 or HIST 1493	United States to 1865 (Core IV) or United States, 1865 to the Present	3	PHYS 2524	General Physics for Engineering and Science Majors	4
	CREDIT HOURS		15	CREDIT HOURS		14
JUNIOR	MATH 3113	Introduction to Ordinary Differential Equations	3	GEOL 3123	Introductory Field Geology	3
	GEOL 3114	Structural Geology	4	GPHY 4553	Introduction to Seismology	3
	GPHY 4413	Global Geophysics	3		Geophysics Elective (upper-division)	3
		Geophysics Elective (upper-division)	3		General Education Social Science (Core III) ³	3
		General Education Artistic Forms (Core IV) ³	3			
		CREDIT HOURS		16	CREDIT HOURS	
	SUMMER					
	GPHY 4133	Colorado Field Geophysics	3			
	CREDIT HOURS		3			
SENIOR	ENGL 3153 or GEOL 3333	Technical Writing 4 or Geowriting ⁴	3	PHYS 3043	Physical Mechanics I	3
	GPHY 4874	Seismic Exploration	4		Geology Elective (upper-division)	3
	P SC 1113	American Federal Government (Core III)	3		Math Elective (upper-division)	3
		Geophysics Elective (upper-division)	3		General Education World Culture (Core IV) ³	3
		General Education Western Culture (Core IV) ³	3		Free Elective	3
	CREDIT HOURS		16	CREDIT HOURS		15

¹ MATH 1823, MATH 2423, MATH 2433, and MATH 2443 may be substituted for MATH 1914, MATH 2924 and MATH 2934.

² CHEM 1335 may be substituted for CHEM 1315.

³ To be chosen from the University-Wide General Education Approved Course List. Three hours of general education outside the major must be upper-division.

⁴ GEOL 3333 is taught on an irregular basis and may be substituted for ENGL 3513.