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

Academic Year	General Requirements	Program
For Students Entering the Oklahoma State System for Higher Education **Summer 2023 through Spring 2024**	Minimum Total Credit Hours ..... **122** Minimum Upper-Division Hours ..... **48** **Minimum Retention/Graduation Grade Point Averages:** Overall - Combined and OU ..... **2.50** Major - Combined and OU **2.50**	**Petroleum Geology** **B770** Bachelor of Science

OU encourages students to complete at least 31 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		
English Composition (6 hours)		
ENGL 1113	Principles of English Composition	3
ENGL 1213	Principles of English Composition	3
or EXPO 1213	Expository Writing	
Language (0-10 hours)		
(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
Mathematics (minimum 3 hours)		
MATH 1823	Calculus and Analytic Geometry I [1]	3-4
or MATH 1914	Differential and Integral Calculus 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		
Artistic Forms (3 hours)		
Choose one course from the General Education Artistic Forms list.		3
Western Culture (6 hours)		
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
World Culture (3 hours)		
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 122 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 3223	Igneous and Metamorphic Petrology	3
GEOL 3233	Sedimentary Petrology and Sedimentology	3
GEOL 3114	Structural Geology	4
GEOL 3513	Fundamentals of Invertebrate Paleontology	3
GEOL 4113	Depositional Systems and Stratigraphy	3
GEOL 3123	Introductory Field Geology	3
GEOL 4136	Field Geology	6
GEOL 4133	Petroleum Geology for Geoscientists	3
GEOL 4233	Subsurface Methods	3
GPHY 4874	Seismic Exploration	4
GPHY 4413	Global Geophysics	3
or GEOL 4223	Principles of Geochemistry (Slashlisted with 5223)	
Total Credit Hours		**50**

MAJOR SUPPORT REQUIREMENTS

Code	Title	Credit Hours
MATH 2423	Calculus and Analytic Geometry II [1]	3
MATH 2433	Calculus and Analytic Geometry III [1]	3
CHEM 1415	General Chemistry (Continued)	5
or CHEM 1435	General Chemistry II: Signature Course	
ENGL 3153	Technical Writing	3
or GEOL 3333	Geowriting	
Math/Science Elective (list maintained by the department) [2]		3
Science Electives (9 hours, with at least 3 outside the college, and at least 6 hours must be upper division) [3]		9
Total Credit Hours		**26**

1MATH 1914 and MATH 2924 may be substituted for MATH 1823, MATH 2423, MATH 2433, These tracks have a difference of one credit hour, so those enrolling in the 4 credit hour courses may need to enroll in 1 additional hour of free elective to meet the 122 total credits.
2Students need to select one course in the areas of statistics, quantitative and computer programming. The School of Geosciences maintains list of approved courses.
3A minimum of 9 hours of advisor approved courses from ANTH, ASTR, BIOL, CEES, CHEM, CS, ENGR, ENST, GEOG, GIS, GPHY, MATH, MBIO, METR, PBIO, and/or PE. At least 6 hours need to be upper division, and 3 hours need to be outside the College of Earth and Energy.

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

SUGGESTED SEMESTER PLAN OF STUDY

Students who have not completed two years of the same language courses 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 this 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	GEOL 1124	Earth History	4
	MATH 1823	Calculus and Analytic Geometry I (Core I) [1]	3	MATH 2423	Calculus and Analytic Geometry II [1]	3
	ENGL 1113	Principles of English Composition (Core I)	3	CHEM 1315	General Chemistry [2]	5
		First Year Experience (Core V) [3]	3	ENGL 1213 or EXPO 1213	Principles of English Composition (Core I) or Expository Writing	3
		General Education Artistic Forms (Core IV) [3]	3			
		CREDIT HOURS	**16**		**CREDIT HOURS**	**15**
SOPHOMORE	GEOL 2224	Introduction to Mineral Sciences	4	GEOL 3223	Igneous and Metamorphic Petrology	3
	MATH 2433	Calculus and Analytic Geometry III [1]	3	GEOL 3233	Sedimentary Petrology and Sedimentology	3
	CHEM 1415	General Chemistry (Continued) [2]	5	PHYS 2514	General Physics for Engineering and Science Majors (Core II)	4
		General Education Western Culture (Core IV) [3]	3		Math/Science Elective from approved list maintained by the department [8]	3
		CREDIT HOURS	**15**		**CREDIT HOURS**	**13**
JUNIOR	GEOL 3114	Structural Geology	4	GEOL 3123	Introductory Field Geology	3
	GEOL 3513	Fundamentals of Invertebrate Paleontology	3	ENGL 3153 or GEOL 3333	Technical Writing 7 or Geowriting[7]	3
	GEOL 4113	Depositional Systems and Stratigraphy	3		Science Elective (outside the major) [6]	3
	PHYS 2524	General Physics for Engineering and Science Majors	4		Free Elective [4]	3
		CREDIT HOURS	**14**		**CREDIT HOURS**	**12**
		SUMMER				
	GEOL 4136	Field Geology	6			
		CREDIT HOURS	**6**			
SENIOR	GEOL 4133	Petroleum Geology for Geoscientists	3	GPHY 4413 or GEOL 4223	Global Geophysics 5 or Principles of Geochemistry (Slashlisted with 5223)[5]	3
	GPHY 4874	Seismic Exploration	4	GEOL 4233	Subsurface Methods	3
	P SC 1113	American Federal Government (Core III)	3	HIST 1483 or HIST 1493	United States to 1865 (Core IV) or United States, 1865 to the Present	3
		Science Elective (outside the College) [6]	3		Science Elective (outside the major) [6]	3
		General Education World Culture (Core IV) [3]	3		General Education Social Science (Core III) [3]	3
		CREDIT HOURS	**16**		**CREDIT HOURS**	**15**

1 MATH 1914 and MATH 2924 may be substituted for MATH 1823, MATH 2423, MATH 2433, These tracks have a difference of one credit hour, so those enrolling in the 4 credit hour courses may need to enroll in 1 additional hour of free elective to meet the 121 total credits.

2 CHEM 1335 and CHEM 1435 may be substituted for CHEM 1315 and CHEM 1415.

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

4 Three hours of electives. Foreign Language courses taken to satisfy University-Wide General Education Requirements may be counted as lower-division free electives.

5 Only one of the following courses is required. GPHY 4413 is taught alternate fall semesters; GEOL 4223 is taught alternate spring semesters.

6 A minimum of 9 hours of advisor approved courses from ANTH, ASTR, BIOL, CEES, CHEM, CS, ENGR, ENST, GEOG, GIS, GPHY,MATH, MBIO, METR, PBIO, and/or PE. At least 6 hours need to be upper division, and 3 hours need to be outside the College of Earth and Energy.

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

8 Students need to select one course in the areas of statistics, quantitative and computer programming. The School of Geosciences maintains list of approved courses.