

**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 2024 through Spring 2025	Minimum Total Credit Hours 126 Minimum Upper-Division Hours 40 Minimum Retention/Graduation Grade Point Averages: Overall - Combined and OU 2.50 Major - Combined and OU 2.50 Curriculum - Combined and OU 2.50	Petroleum Engineering B765 Bachelor of Science

OU encourages students to complete at least 32 hours of applicable coursework each year to have the opportunity to graduate in 4 years.

Minimum Total Credit Hours: 126
Minimum Upper-Division Hours: 40

Overall GPA - Combined and OU: 2.50
Major GPA - Combined and OU: 2.50
Curriculum GPA - Combined and OU: 2.50

Program Code: B765

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/genes/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 General Education Social Science course		3
Core Area IV: Arts and Humanities		
<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)	
CEE 1513 Towards Just and Responsible Energy Engineering ²	3
Total Credit Hours	39-50

- ¹ Mewborne College of Earth and Energy Sciences requirements that also satisfy University General Education requirements.
- ² Mewbourne School of Petroleum and Geological Engineering requirements that also satisfy University General Education requirements.

ADDITIONAL MEWBOURNE 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 126 including 40 upper-division hours.

Major Requirements

Bachelor of Science in Petroleum Engineering accredited by the Engineering Accreditation Commission of ABET, <https://www.abet.org>, under the General Criteria and the Petroleum and Similarly Named Engineering Programs Program Criteria.

A minimum grade of C is required for each course in the curriculum, and students must successfully complete prerequisite courses (with a minimum C grade) before proceeding to the next course.

Code	Title	Credit Hours
P E 2113	Statics and Dynamics	3
P E 2213	Thermodynamics	3
P E 2153	Mechanics of Materials	3
P E 3021	Technical Communications	1
P E 3213	Reservoir Rock Properties	3
P E 3221	Rock Properties Laboratory	1
P E 3220	Petroleum Engineering Internship ¹	0
P E 3123	Petroleum Reservoir Fluids	3
P E 3223	Fluid Mechanics	3
P E 3313	Drilling I	3
P E 3712	Petroleum Economics	2
P E 3723	Numerical Methods for Engineering Computation	3
P E 3413	Production Engineering I	3
P E 3513	Reservoir Engineering I	3
P E 3813	Formation Evaluation with Well Logs	3
P E 4331	Drilling Engineering Laboratory	1
P E 4323	Drilling II	3
or P E 4533	Reservoir Engineering II	
P E 4423	Production Engineering II	3
P E 4463	Data Analytics	3
P E 4521	Reservoir Fluid Mechanics Laboratory	1
P E 4711	Petroleum Project Evaluation	1
P E 4553	Integrated Reservoir Management	3
Total Credit Hours		52

¹ An approved P E elective may be taken in place of P E 3220 for 1 to 3 credit hours.

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
C S 1213	Programming for Non-Majors with Python	3
GEOL 1114	Physical Geology for Science and Engineering Majors	4
GEOL 3003	Structural Geology and Stratigraphy for Petroleum Engineers	3
GPHY 3423	Introductory Petroleum Geology and Geophysics	3

Technical Electives ²	6
Total Credit Hours	30

¹ The MATH 1823, MATH 2423, MATH 2433, and MATH 2443 sequence can be substituted for MATH 1914, MATH 2924, and MATH 2934.

² Technical Electives to be selected from upper-division courses from the College of Earth and Energy and College of Engineering.

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

Suggested Semester Plan of Study

Bachelor of Science in Petroleum Engineering accredited by the Engineering Accreditation Commission of ABET, <https://www.abet.org>, under the General Criteria and the Petroleum and Similarly Named Engineering Programs Program Criteria.

A minimum grade of C is required for each course in the curriculum.

Students must successfully complete prerequisite courses (with a minimum C grade) before proceeding to the next course.

Courses designated as Core I, II, III, IV, or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved lists.

Two college-level courses in a single language are required; this may be satisfied by successful completion of 2 years in a single language in high school. Students who must take language at the University will have an additional 6-10 hours of coursework.

Year	FIRST SEMESTER		Hours	SECOND SEMESTER		Hours
FRESHMAN	ENGL 1113	Principles of English Composition (Core I)	3	ENGL 1213 or EXPO 1213	Principles of English Composition (Core I) or Expository Writing	3
	CHEM 1315	General Chemistry (Core II) ¹	5	MATH 2924	Differential and Integral Calculus II ²	4
	MATH 1914	Differential and Integral Calculus I (Core I) ²	4	PHYS 2514	General Physics for Engineering and Science Majors (Core II)	4
	CEE 1513	Towards Just and Responsible Energy Engineering	3		Approved Elective: Western Culture (Core IV) ³	3
	CREDIT HOURS		15	CREDIT HOURS		14
SOPHOMORE	MATH 2934	Differential and Integral Calculus III ²	4	MATH 3113	Introduction to Ordinary Differential Equations	3
	PHYS 2524	General Physics for Engineering and Science Majors	4	C S 1213	Programming for Non-Majors with Python	3
	GEOL 1114	Physical Geology for Science and Engineering Majors	4	P E 2213	Thermodynamics	3
	P E 2113	Statics and Dynamics	3	P E 3021	Technical Communications	1
				P E 3213	Reservoir Rock Properties	3
				P E 3221	Rock Properties Laboratory	1
					Approved Elective: World Culture (Core IV) ³	3
	CREDIT HOURS		15	CREDIT HOURS		17
SUMMER						
	P E 3220	Petroleum Engineering Internship ⁴	0			
CREDIT HOURS		0				
JUNIOR	GEOL 3003	Structural Geology and Stratigraphy for Petroleum Engineers	3	GPHY 3423	Introductory Petroleum Geology and Geophysics	3
	P E 3123	Petroleum Reservoir Fluids	3	P E 2153	Mechanics of Materials	3
	P E 3223	Fluid Mechanics	3	P E 3413	Production Engineering I	3
	P E 3313	Drilling I	3	P E 3513	Reservoir Engineering I	3
	P E 3712	Petroleum Economics	2	P E 3813	Formation Evaluation with Well Logs	3
	P E 4711	Petroleum Project Evaluation	1	P E 4331	Drilling Engineering Laboratory	1
	P E 3723	Numerical Methods for Engineering Computation	3			
CREDIT HOURS		18	CREDIT HOURS		16	
SENIOR	P E 4323 or P E 4533	Drilling II or Reservoir Engineering II	3	P SC 1113	American Federal Government (Core III)	3
	P E 4423	Production Engineering II	3	P E 4463	Data Analytics	3
	P E 4521	Reservoir Fluid Mechanics Laboratory	1	P E 4553	Integrated Reservoir Management	3
		Technical Elective ⁵	3		Technical Elective ⁵	3
	HIST 1483 or HIST 1493	United States to 1865 (Core IV) or United States, 1865 to the Present	3		Approved Elective: Artistic Forms (Core IV)	3
		Social Science (Core III) ³	3			
CREDIT HOURS		16	CREDIT HOURS		15	

¹ CHEM 1315 and CHEM 1415 can be substituted with CHEM 1335 (Fall only) and CHEM 1435 (Spring only), respectively.

² The MATH 1823, MATH 2423, MATH 2433, and MATH 2443 sequence can be substituted for MATH 1914, MATH 2924, and MATH 2934.

³ To be chosen from the University-Wide General Education Approved Course List. Three of these hours must be upper-division (3000-4000). See list in the Class Schedule.

⁴ An approved P E elective may be taken in place of P E 3220 for 1 to 3 credit hours.

⁵ Technical Electives to be selected from upper-division courses from the College of Earth and Energy and College of Engineering.