

# GEOLOGY: PETROLEUM GEOLOGY, BS

## Degree Programs

**Requirements for Students Matriculating in or before Academic Year 2024-2025.** Learn more about University Academic Regulation 3.1 (<http://catalog.okstate.edu/university-academic-regulations/#matriculation>).

**Minimum Overall Grade Point Average: 2.00**

**Total Hours: 120**

Code	Title	Hours
<b>General Education Requirements</b>		
<i>English Composition</i>		
See Academic Regulation 3.5 ( <a href="http://catalog.okstate.edu/university-academic-regulations/#english-composition">http://catalog.okstate.edu/university-academic-regulations/#english-composition</a> )		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
or ENGL 3323	Technical Writing	
<i>American History &amp; Government</i>		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
<i>Analytical &amp; Quantitative Thought (A)</i>		
MATH 2144	Calculus I (A) <sup>1</sup>	4
<i>Humanities (H)</i>		
Courses designated (H)		6
<i>Natural Sciences (N)</i>		
Must include one Laboratory Science (L) course		
CHEM 1314	Chemistry I (LN)	4
Select four hours from the following:		4
BIOL 1113	Introductory Biology (N)	
& BIOL 1111	and Introductory Biology Laboratory (LN) <sup>1</sup>	
BIOL 1114	Introductory Biology (LN) <sup>1</sup>	
NREM 1014	Introduction to Natural History (LN)	
<i>Social &amp; Behavioral Sciences (S)</i>		
Course designated (S)		3
<i>Additional General Education</i>		
Courses designated (A), (H), (N), or (S)		7
<b>Hours Subtotal</b>		<b>40</b>
<b>Diversity (D) &amp; International Dimension (I)</b>		
May be completed in any part of the degree plan.		
At least one Diversity (D) course		
At least one International Dimension (I) course		
<b>College/Departmental Requirements</b>		
<i>First Year Seminar</i>		
(Transfer students with 15 hours exempt)		1
<i>Arts &amp; Humanities</i>		3

(See note 2.a.)

<i>Natural &amp; Mathematical Sciences</i>		
PHYS 2014	University Physics I (LN) <sup>1</sup>	4
or PHYS 1114	College Physics I (LN)	
CHEM 1515	Chemistry II (LN)	5

(See note 2.b.)

<i>Foreign Languages</i>		
(See note 3.)		
0-6 hours		

*Upper-Division General Education*

6 hours outside major department		
(See note 2.c.)		

<b>Hours Subtotal</b>		<b>13</b>
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### Major Requirements

Minimum grade of "C" in all Major Required courses.

*Core Curriculum:*

GEOL 1214	Introductory Geological Processes (LN)	4
or GEOL 1114	Physical Geology (LN)	
GEOL 1224	Evolution of the Earth (LN)	4
GEOL 2464	Rocks and Minerals	4
GEOL 3014	Structural Geology	4
GEOL 3034	Principles of Stratigraphy and Sedimentology	4
GEOL 4023	Petroleum Geology	3
GEOL 4443	Environmental Geophysics	3
or GEOL 4403	Environmental Geochemistry	
GEOL 4213	Plate Tectonics	3
GEOL 4313	Introduction to Well Log Analysis	3
GEOL 4453	Hydrogeology	3
GEOL 3546	Field Geology	6

*Related Curriculum:*

FIN 4003	Introduction to Energy Business	3
GEOG 4203	Fundamentals of Geographic Information Systems	3
MATH 2153	Calculus II (A)	3
PHYS 2114	University Physics II (LN)	4
or PHYS 1214	College Physics II (LN)	

<b>Hours Subtotal</b>		<b>54</b>
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<b>Electives</b>		<b>13</b>
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May need to include 6 hours of a foreign language

See note 3.

MATH 1513 and MATH 1813 required for students who do not place directly into MATH 2144.

GEOL 3103 and GEOL 4673 recommended.

<b>Hours Subtotal</b>		<b>13</b>
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<b>Total Hours</b>		<b>120</b>
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College and Departmental Requirements that may be used to meet General Education Requirements.

Other Requirements

- See the College of Arts and Sciences Requirements
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
  - a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (A), PHIL 3003 Symbolic Logic (A) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
  - b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
  - c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (<http://catalog.okstate.edu/college-arts-sciences-major-departments/>). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
  - d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
  - e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
  - a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
  - b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript

which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.

- c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions.** Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- **At least:** 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 and 50% of the upper-division hours in the major field completed at OSU.
- **Limit of:** one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2030.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
<b>Freshman</b>		
<b>Fall</b>		
GEOL 1214	Introductory Geological Processes (LN)	4
NREM 1014 or BIOL 1113 <i>and</i> BIOL 1111	Introduction to Natural History (LN) or Introductory Biology (N) <i>and</i> Introductory Biology Laboratory (LN)	4
MATH 2144	Calculus I (A)	4
General Education courses		3
<b>Hours</b>		<b>15</b>
<b>Spring</b>		
GEOL 1224	Evolution of the Earth (LN)	4
MATH 2153	Calculus II (A)	3
CHEM 1314	Chemistry I (LN)	4
General Education courses		3
<b>Hours</b>		<b>14</b>

**Sophomore****Fall**

GEOL 2464	Rocks and Minerals	4
PHYS 1114	College Physics I (LN)	4
College and General Education courses		7
<b>Hours</b>		<b>15</b>

**Spring**

GEOL 2403 or CHEM 1515	Chemistry of Earth Systems or Chemistry II (LN)	3
GEOL 2403 offered every even Spring semester		
GEOL 3034	Principles of Stratigraphy and Sedimentology	4
Major, College, and Elective courses		8
<b>Hours</b>		<b>15</b>

**Junior****Fall**

GEOL 3014	Structural Geology	4
GEOL 4443	Environmental Geophysics	3
Major, College, and Elective courses		8
<b>Hours</b>		<b>15</b>

**Spring**

GEOL 2103 or PHYS 1214	Fundamentals of Geophysics or College Physics II (LN)	3
GEOL 2103 offered every odd Spring semester		
GEOL 4403	Environmental Geochemistry (offered every odd Spring semester)	3
Major, College, and Elective courses		9
<b>Hours</b>		<b>15</b>

**Summer**

GEOL 3546	Field Geology	6
<b>Hours</b>		<b>6</b>

**Senior****Fall**

GEOL 4213	Plate Tectonics	3
GEOL 4453	Hydrogeology	3
Major courses		6
<b>Hours</b>		<b>12</b>

**Spring**

FIN 4003	Introduction to Energy Business	3
GEOG 4203	Fundamentals of Geographic Information Systems	3
GEOL 4023	Petroleum Geology	3
Major, College, and Elective courses		4
<b>Hours</b>		<b>13</b>
<b>Total Hours</b>		<b>120</b>

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Speak to your Academic Advisor about pairing General Education Humanities (H) and Social Sciences (S) courses with General Education International (I) and Diversity (D) dimensions.