



SECONDARY EDUCATION: SCIENCE (EARTH SCIENCE), BS

The following guide is for students matriculating in or before the academic year **2026-2027**. Official degree requirements can be found at <https://catalog.okstate.edu/degree-programs/>. This plan may be adjusted based on individual needs; please consult with your academic advisor. [Prerequisite coursework is listed below in brackets]

Minimum Overall GPA: 2.50

Total Hours: 120

YEAR 1, FALL SEMESTER (15 hours)

UNIV 1111 First Year Seminar
SMED 1012 Inquiry Approaches to Teaching
MATH 2144 Calculus I (Q) [MATH 1613 or 1715 or 1813 or ALEKS Placement Score of 65]*
GEOL 1214 Introduction to Geological Processes (LN) or GEOL 1114 Physical Geology (LN) [MATH 1483 or 1513 or 1613 or 1715 or 1813 or 2103 or 2144]*
BIOL 1113 Introductory Biology (N) with BIOL 1111 Introductory Biology Laboratory (LN) or BIOL 1114 Introductory Biology (LN)

YEAR 1, SPRING SEMESTER (16 hours)

ENGL 1113 Composition I or ENGL 1313 Critical Analysis and Writing I
GEOL 1224 Evolution of the Earth (LN)
CHEM 1314 Chemistry I (LN) [MATH 1483 or 1513 or 1613 or 1715 or 1813 or 2103 or 2123 or 2144]*
ASTR 1023 Stars, Galaxies, Universe (N)
SPED 3202 Educating Exceptional Learners

YEAR 2, FALL SEMESTER (15 hours)

ENGL 1213 Composition II or ENGL 1413 Critical Analysis and Writing II or ENGL 3323 Technical Writing [ENGL 1113]*
GEOL 3044 Rocks and Minerals [GEOL 1014 or 1114 or 1214 and CHEM 1314 or 1414]*
CHEM 1515 Chemistry II (LN) [CHEM 1314 or CHEM 1414]*
HIST 1103 Survey of American History or HIST 1483 American History to 1865 or HIST 1493 American History Since 1865

YEAR 2, SPRING SEMESTER (17 hours)

PHYS 1114 College Physics (LN) [MATH 1513 or 1613 or 1715 or 1813 or 2103 or 2123 or 2144]* or PHYS 2014 University Physics I (LN) [MATH 2103 or 2123 or 2144]*
GEOL 3034 Principles of Stratigraphy and Sedimentology [GEOL 1224 and 3044]*
SMED 3013 – Knowing and Learning in Mathematics and Science [SMED 1012]*
POLS 1113 American Government
Course designated (DH) – 3 hours

YEAR 3, FALL SEMESTER (16 hours)

GEOL 3014 Structural Geology [GEOL 3004 and PHYS 1114 or 2014]*
GEOL 2773 Introduction to Planetary Geology (N)
CIED 3313 Field Experience in the Secondary Schools (Block 6-8 hrs/ 1 day for 42 hours of observations)
Course designated (G) – 3 hours
Course designated (H) – 3 hours

Note: Full admission to Professional Education requires: (1) A grade of "C" or better in **SMED 3013 and CIED 3313**, (2) minimum overall **GPA of 2.50**, and (3) **one measure of general education knowledge** satisfied by: ACT score of 22 or higher with writing section; or SAT score of 1120 or higher with minimum scores of writing - 5, analysis - 4, reading - 5; or passing PRAXIS test score; or minimum general education 2.75 GPA (30 hours minimum)

YEAR 3, SPRING SEMESTER (17 hours)

GEOL 3503 Environmental Geology (N) [GEOL 1014 or 1114 or 1214]*
GEOG 3023 Climatology (N) or GEOG 3033 Meteorology (N)
SMED 4611 Authentic Research in the Classroom [full admission to Professional Education Program]* (Spring Only)
SMED 4613 Teaching Science Through Inquiry [full admission to Professional Education Program]* (Spring Only)
Course designated (S) – 3 hours
Electives – 4 hours

NOTE: Students must take the OSAT (Oklahoma Subject Area Test) or PRAXIS prior to student teaching placement. The OSAT is recommended.

YEAR 4, FALL SEMESTER (16 hours)

GEOL 4503 Introduction to Oceanography
CIED 4724 Classroom Management in Secondary School [full admission to Professional Education Program]* (Fall or Spring)
SMED 4713 Teaching and Learning Science in the Secondary Schools [full admission to Professional Education Program]* (Fall Only)
STAT 2013 Elementary Statistics (Q) [MATH 1483 or 1513 or 1613 or 1715 or 1813 or 2103 or 2144]* or STAT 4013 Statistical Methods I (Q) [MATH 1513 or 1613 or 1715 or 1813 or 2144]*
Electives – 3 hours

YEAR 4, SPRING SEMESTER (8 hours)

CIED 4720 Internship in the Secondary Classroom – 8 hours [full admission to Professional Education Program & OSAT taken]*
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Notes: (1) File graduation application with enrollment. (2) Fingerprint background check. (3) Register for and pass the APK. (4) Apply for Oklahoma certification.

Prior to enrolling in an OSU math class, you will need to complete the Math Placement Exam to ensure success in your first math course. The OSU Math Placement Exam is designed to find the strengths and weaknesses of your mathematical knowledge, report results to you, and then, if necessary, provide you with online learning modules for improving your knowledge to prepare for the appropriate course. **Math Placement Exam:** <https://go.okstate.edu/admissions/orientation-and-enrollment/math-placement>

Elective Suggestions

MATH 1513 and/or MATH 1813 may be necessary, if student is not ready for MATH 2144
3-6 hours of foreign language may be necessary