# GEOLOGY: SECONDARY TEACHER CERTIFICATION, BS

## Degree Requirements

**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: 2.50  
Total Hours: 120

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<th>Code</th>
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<tr>
<td><strong>English Composition</strong></td>
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<td>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>)</td>
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<tr>
<td>ENGL 1113</td>
<td>Composition I</td>
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<tr>
<td>or ENGL 1313</td>
<td>Critical Analysis and Writing I</td>
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<td>ENGL 1213</td>
<td>Composition II</td>
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<tr>
<td>ENGL 1413</td>
<td>Critical Analysis and Writing II</td>
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<tr>
<td>or ENGL 3323</td>
<td>Technical Writing</td>
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<tr>
<td><strong>American History &amp; Government</strong></td>
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<tr>
<td>HIST 1103</td>
<td>Survey of American History</td>
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</tr>
<tr>
<td>or HIST 1483</td>
<td>American History to 1865 (H)</td>
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<tr>
<td>or HIST 1493</td>
<td>American History Since 1865 (DH)</td>
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<tr>
<td>POLS 1113</td>
<td>American Government</td>
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<tr>
<td><strong>Analytical &amp; Quantitative Thought (A)</strong></td>
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<td>MATH 2144</td>
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<td>3 hours STAT designated (A)</td>
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<tr>
<td><strong>Humanities (H)</strong></td>
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<td>PHIL 3933</td>
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<tr>
<td>Course designated (H)</td>
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<tr>
<td><strong>Natural Sciences (N)</strong></td>
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<td>Must include one Laboratory Science (L) course</td>
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<tr>
<td>GEOL 1214</td>
<td>Introductory Geological Processes (LN)</td>
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<td>or GEOL 1114</td>
<td>Physical Geology (LN)</td>
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<td>PHYS 2014</td>
<td>University Physics I (LN)</td>
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<td>College Physics I (LN)</td>
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<td>BIOL 1113</td>
<td>Introductory Biology (N)</td>
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<td>&amp; BIOL 1111</td>
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<td>or BIOL 1114</td>
<td>Introductory Biology (LN)</td>
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<td>Course designated (S)</td>
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<tr>
<td><strong>Diversity (D) &amp; International Dimension (I)</strong></td>
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<tr>
<td>May be completed in any part of the degree plan</td>
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<tr>
<td>Select at least one Diversity (D) course</td>
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<tr>
<td>Select at least one International Dimension (I) course</td>
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<td><strong>College/Departmental Requirements</strong></td>
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<tr>
<td><strong>First Year Seminar</strong></td>
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<td>(Transfer students with 15 hours exempt)</td>
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<td>Arts &amp; Humanities</td>
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<td>See note 2.a.</td>
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<tr>
<td><strong>Natural &amp; Mathematical Sciences</strong></td>
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<tr>
<td>CHEM 1314</td>
<td>Chemistry I (LN)</td>
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<td>CHEM 1515</td>
<td>Chemistry II (LN)</td>
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<td><strong>Foreign Language</strong></td>
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<tr>
<td>See note 3</td>
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<td>0-6 hours</td>
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<td><strong>Upper-Division General Education</strong></td>
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<td>Select 6 hours outside major department. See note 2.c.</td>
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<td><strong>Major Requirements</strong></td>
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<td>Minimum GPA 2.50 and minimum grade of &quot;C&quot; or &quot;P&quot; for courses in Geology Core and those denoted with</td>
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<tr>
<td>ASTR 1023</td>
<td>Stars, Galaxies, Universe (N)</td>
<td>3</td>
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<td>GEOL 1224</td>
<td>Evolution of the Earth (LN)</td>
<td>4</td>
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<tr>
<td>GEOL 2464</td>
<td>Rocks and Minerals</td>
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<tr>
<td>GEOL 2773</td>
<td>Introduction to Planetary Geology (N)</td>
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<td>GEOL 3014</td>
<td>Structural Geology</td>
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<tr>
<td>GEOL 3034</td>
<td>Principles of Stratigraphy and Sedimentology</td>
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<tr>
<td><strong>Secondary Education Professional Core</strong></td>
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<td>Minimum GPA 2.50 and minimum grade of &quot;C&quot; or &quot;P&quot; in each course</td>
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<tr>
<td>SMED 1012</td>
<td>Inquiry Approaches to Teaching</td>
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<td>SMED 3013</td>
<td>Knowing and Learning in Mathematics and Science</td>
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<td>SMED 4023</td>
<td>Problem-Based Learning in Mathematics and Science</td>
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<td><strong>SMED 4611</strong></td>
<td>Authentic Research in the Science Classroom</td>
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<td>SMED 4613</td>
<td>Teaching the Nature of Science Through an Inquiry Approach</td>
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<tr>
<td>SMED 4713</td>
<td>Teaching and Learning Science in the Secondary School</td>
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<tr>
<td>SMED 4723</td>
<td>Senior Seminar in Secondary Mathematics and Science Education</td>
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<tr>
<td>SPED 3202</td>
<td>Educating Exceptional Learners (D)</td>
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<td>CIED 3313</td>
<td>Field Experience in the Secondary Schools</td>
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<tr>
<td>CIED 4133</td>
<td>Introduction to K-12 English Language Learners</td>
<td>3</td>
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<tr>
<td>CIED 4720</td>
<td>Internship in the Secondary Classroom (6 hours)</td>
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<td><strong>Hours Subtotal</strong></td>
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<td><strong>Electives</strong></td>
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<td>Select 4 hours</td>
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<tr>
<td>May need to include 6 hours of a foreign language (see note 3)</td>
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Requirements

College of Arts and Sciences

Other Requirements

Full admission to Professional Education required.

Minimum GPA 2.50 and minimum grade of “C” or “P” for courses in General Education Requirements.

1. College and Departmental Requirements that may be used to meet General Education Requirements.

2. 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, BIOL, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOG, 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

   a. At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.

   b. Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.

   c. 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.

   d. 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.

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<td><strong>Fall</strong></td>
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<td>GEOL 1214</td>
<td>Introductory Geological Processes (LN) or Physical Geology (LN)</td>
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<td>MATH 2144</td>
<td>Calculus I (A)</td>
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<td>NREM 1014</td>
<td>Introduction to Natural History (LN)</td>
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<td>or BIOL 1113 and BIOL 1111</td>
<td>Introductory Biology (N) and Introductory Biology Laboratory (LN)</td>
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<td>SMED 1012</td>
<td>Inquiry Approaches to Teaching</td>
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<td><strong>Hours</strong></td>
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<td>ASTR 1023</td>
<td>Stars, Galaxies, Universe (N)</td>
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<td>CHEM 1314</td>
<td>Chemistry I (LN)</td>
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<td>Evolution of the Earth (LN)</td>
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<td>GEOL 2464</td>
<td>Rocks and Minerals</td>
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<td>GEOL 2773</td>
<td>Introduction to Planetary Geology (N) (every other year)</td>
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<td>CHEM 1515</td>
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<td><strong>Hours</strong></td>
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<td><strong>Spring</strong></td>
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<td>GEOG 3023</td>
<td>Climatology (N)</td>
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<td>College Physics I (LN) or University Physics I (LN)</td>
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<td>SMED 3013</td>
<td>Knowing and Learning in Mathematics and Science</td>
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<td>GEOL 3034</td>
<td>Principles of Stratigraphy and Sedimentology</td>
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<td>GEOL 4503</td>
<td>Introduction to Oceanography (N)</td>
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<td>PHIL 3933</td>
<td>Creation and Evolution (August Pre-Session only)</td>
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<td>College Physics II (LN) or University Physics II (LN)</td>
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<td><strong>Hours</strong></td>
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<tr>
<td><strong>Spring</strong></td>
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<td>CIED 4133</td>
<td>Introduction to K-12 English Language Learners</td>
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<td>GEOL 3503</td>
<td>Environmental Geology (N)</td>
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<td>GEOL 3014</td>
<td>Structural Geology</td>
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<td>SMED 4023</td>
<td>Problem-Based Learning in Mathematics and Science</td>
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<td>Teaching and Learning Science in the Secondary School</td>
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<td><strong>Major, College, and Elective courses</strong></td>
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<tr>
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