**BS Earth and Space Science Education, Grades 9-12: 61-62 credits in Major**

Department of Atmospheric and Hydrologic Sciences: Phone 320-308-3260 or ahs@stcloudstate.edu

Earth and Space Science Teaching Major Advisors
Dr. Jean Hoff 320-308-5914 jlhoff@stcloudstate.edu  Dr. Katherine Pound 320-308-2014 kspound@stcloudstate.edu

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
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<tbody>
<tr>
<td>¹ASTR 106 (3 cr) Concepts of the Solar System (LEP GA 3)</td>
<td>AHS 205 (5 cr) Earth Systems for Teachers or AHS 220 (4 cr) Physical Geology</td>
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<tr>
<td>CMST 192 (3 cr) Introduction to Communication Studies (LEP GA 1)</td>
<td>CHEM 210 (4 cr) General Chemistry 1</td>
</tr>
<tr>
<td>²HIST 109 (3 cr) Race in America (LEP GA 6 &amp; 7, DIV)</td>
<td>ED 300 (3 cr) Teaching in Middle School &amp; High School</td>
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<tr>
<td>³MATH 112 or 115 (3-5 cr) College Algebra or Precalculus (LEP GA 4)</td>
<td>ENGL 191 (4 cr) Intro. to Rhetorical &amp; Analytical Writing (LEP GA 1)</td>
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<tr>
<td><strong>Total semester credits = 12-14</strong></td>
<td><strong>Total semester credits = 15-16</strong></td>
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<th>Third Semester</th>
<th>Fourth Semester</th>
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<tr>
<td>AHS 307 (3 cr) Field Geology</td>
<td>AHS 305 (3 cr) Historical Geology</td>
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<tr>
<td>AHS 260 (4 cr) Introductory Meteorology</td>
<td>AHS 230 (4 cr) Introduction to Physical Hydrology (LEP GA 3)</td>
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<tr>
<td>PHYS 231 (4 cr) General Physics I</td>
<td>PHYS 232 (4 cr) General Physics II</td>
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<tr>
<td>CEEP 262 (3 cr) Human Growth &amp; Development (LEP GA 5)</td>
<td>⁴AHS Elective (3 cr)</td>
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<td><strong>Total semester credits = 14</strong></td>
<td>IM 422 (2 cr) Info. Tech. &amp; Learning for K-12 and 5-12 Education</td>
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<tr>
<th>Fifth Semester</th>
<th>Sixth Semester</th>
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<tr>
<td>AHS 380 (2 cr) Introduction to Forecasting</td>
<td>AHS 325 (4 cr) Rocks and Minerals</td>
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<tr>
<td>ASTR 205 (4 cr) General Astronomy</td>
<td>HLTH 301 (2 cr) Health Issues &amp; Strategies for Teachers</td>
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<tr>
<td>BiOL 152 (4 cr) Organismal Diversity (LEP GA 10)</td>
<td>PHIL 194 (3 cr) Critical Reasoning (LEP GA 2)</td>
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<tr>
<td>CEEP 361 (3 cr) Introduction to Educational Psychology</td>
<td>SCI 420 (4 cr) Teaching Science in a Social Context</td>
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<td>SPED 203 (3 cr) Special Education Foundations (LEP GA 5)</td>
<td>Any LEP GA 9 (3 cr)</td>
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<td><strong>Total semester credits = 16</strong></td>
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<tr>
<th>Seventh Semester</th>
<th>Eighth Semester</th>
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<tr>
<td>ED 421 (2 cr) Foundations in Education</td>
<td>ED 466 (9 cr) Student Teaching for 5-12 Licensure</td>
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<tr>
<td>ED 431 (2 cr) Curriculum, Instruction &amp; Assessment</td>
<td>SCI 440 (3 cr) Seminar in Science Teaching</td>
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<tr>
<td>ED/ENGL 460 (2 cr) Teaching English Language Learners in K-12</td>
<td><strong>Total semester credits = 12</strong></td>
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<tr>
<td>HURL 497 (3 cr) Human Relations for Teachers</td>
<td><strong>Total Program = 117 – 120 credits</strong></td>
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<tr>
<td>MUSM 125 (3 cr) Music in World Culture (LEP GA 6 &amp; 8, DIV)</td>
<td>SCI 430 (4 cr) Methods and Materials for Teaching Secondary Science</td>
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<tr>
<td><strong>Total semester credits = 16</strong></td>
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**Notes:**

1. The Liberal Education Program (LEP) incorporates the ten goals of the Minnesota Transfer Curriculum. LEP must be satisfied by completion of all ten goals and achieve a total of at least 40 credits. Students must complete 3 diversity courses each from a different rubric (subject) area. Completion of major courses satisfies Goal Areas 3 and 10 and brings the total credits in the LEP to 40.

2. In order to complete this program with only 120 credits, certain Liberal Education courses must cross-count. One course must be Diversity and count in Goal Areas 6 and 7. Another must be Diversity and count in Goal Areas 6 and 8. Such courses are limited but two commonly offered courses are suggested in the program above.

3. The Math Placement Exam is required before enrolling in a math course. Placement is based on ACT math scores or one of the Accuplacer exams. Students without ACT scores should take the Accuplacer exams prior to their first semester. Go to [http://www.stcloudstate.edu/mathplacement/](http://www.stcloudstate.edu/mathplacement/) for more information.

4. Elective (3 credits) must be approved by your advisor before taken.

*This program has more credits of upper-division coursework (300 and 400 level) than the 45 credits required for graduation.*