<table>
<thead>
<tr>
<th>Required Education Courses</th>
<th>Clinical hours</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>EDUC 210</strong> Observing the Schooling Process</td>
<td>15 hours</td>
</tr>
<tr>
<td><strong>EDUC 215</strong> Instructional Communication: Theory &amp; Practice</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>HIST 239</strong> or <strong>PHIL 220</strong> or <strong>SOAN 244</strong> History or Philosophy or Anthropology of Education</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>PSYC 110</strong> Introduction to Psychology</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>PSYC 210</strong> Developmental Psychology</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>EDUC 413</strong> Reading in the Content Areas</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>EDUC 415</strong> Middle School Fieldwork &amp; Seminar</td>
<td>150 hours</td>
</tr>
<tr>
<td><strong>EDUC 414</strong> Inclusive Learning Environments</td>
<td>15 hours</td>
</tr>
<tr>
<td><strong>EDUC 519</strong> Secondary Curriculum &amp; Instructional Design</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>EDUC 520</strong> Discipline Specific Secondary Instructional Design for Natural Sciences</td>
<td>15 hours</td>
</tr>
<tr>
<td><strong>EDUC 521</strong> Secondary Student Teaching and Seminar</td>
<td>560 hours</td>
</tr>
<tr>
<td><strong>EDUC 501</strong> Introduction to Teacher Research</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>EDUC 502</strong> Action Research Project</td>
<td>N/A</td>
</tr>
</tbody>
</table>

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<thead>
<tr>
<th>Required Content Courses</th>
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</tr>
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<tbody>
<tr>
<td><strong>BIO 120</strong> Organismal Biology</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>BIO 130 - 139</strong> (choose 1) Core Biological Inquiry</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>BIO 220</strong> Ecology and Evolution</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>BIO 221</strong> Cellular and Molecular Biology</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Cellular and Molecular Biology</strong> (320, 322, 324, 325, 342, 346, 352, 360, 362)</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Organismal Biology</strong> (320, 330, 340, 342, 344, 346, 360, 362, 384)</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Ecology and Evolution</strong> (330, 344, 370, 375, 384, 389)</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>BIO 494</strong> Senior Seminar or Senior Thesis</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>BIO 150</strong> Reasoning and Statistical Inference in Biology or <strong>MATH 110</strong> Calculus I or <strong>MATH 150</strong> Probability &amp; Statistics</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>CHEM 115</strong> Chemistry I</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>CHEM 116</strong> Chemistry II</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>PHYS 109</strong> Astronomy and Cosmology</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>PHYS 110/120</strong> Introductory Physics</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Note: a grade of “C” or better is required in all content courses. A grade of B- or better is required for all EDUC courses.
Middle Grades Natural Sciences/Biology Education Major Course Sequence and Program Assessment Checkpoints

General Education
And Required Content Courses

EDUC 210: Observing the Schooling Process

CHECKPOINT #1: Program Entry

HIST 239: History of Education
PHIL 220: Philosophy of Education
SOAN 244: Anthropology of Education

EDUC 215: Instructional Communication Theory and Practice

PSYC 110: Introduction to Psychology

PSYC 210: Developmental Psychology

EDUC 413: Reading Methods in the Content Areas
EDUC 415: Middle School Fieldwork Practicum

CHECKPOINT #2: Application for Student Teaching

EDUC 519: Secondary Curriculum and Instructional Methods
EDUC 520: Discipline-Specific Secondary Methods of Instruction
EDUC 501 Intro to Teacher Research

CHECKPOINT 3: Completion of Student Teaching

EDUC 502: Action Research Project
EDUC 521: Secondary Student Teaching

CHECKPOINT 4: Program Exit

EDUC 414: Inclusive Learning Environments