

## MAT Middle Grades Natural Sciences/Biology Education Program Course of Study

Required Education Courses	Clinical hours
<a href="#">EDUC 210</a> Observing the Schooling Process	15 hours
<a href="#">EDUC 215</a> Instructional Communication: Theory & Practice	N/A
<a href="#">HIST 239</a> or <a href="#">PHIL 220</a> or <a href="#">SOAN 244</a> History or Philosophy or Anthropology of Education	N/A
<a href="#">PSYC 110</a> Introduction to Psychology	N/A
<a href="#">PSYC 210</a> Developmental Psychology	N/A
<a href="#">EDUC 413</a> Reading in the Content Areas	N/A
<a href="#">EDUC 415</a> Middle School Fieldwork & Seminar	150 hours
<a href="#">EDUC 414</a> Inclusive Learning Environments	15 hours
<a href="#">EDUC 519</a> Secondary Curriculum & Instructional Design	N/A
<a href="#">EDUC 520</a> Discipline Specific Secondary Instructional Design for Natural Sciences	15 hours
<a href="#">EDUC 521</a> Secondary Student Teaching and Seminar	560 hours
<a href="#">EDUC 501</a> Introduction to Teacher Research	N/A
<a href="#">EDUC 502</a> Action Research Project	N/A
Required Content Courses	
<a href="#">BIO 120</a> Organismal Biology	N/A
<a href="#">BIO 130 - 139</a> (choose 1) Core Biological Inquiry	N/A
<a href="#">BIO 220</a> Ecology and Evolution	N/A
<a href="#">BIO 221</a> Cellular and Molecular Biology	N/A
<a href="#">Cellular and Molecular Biology</a> (320, 322, 324, 325, 342, 346, 352, 360,362)	N/A
<a href="#">Organismal Biology</a> (320, 330, 340, 342, 344, 346, 360, 362, 384)	N/A
<a href="#">Ecology and Evolution</a> (330, 344, 370, 375, 384, 389)	N/A
<a href="#">BIO 494</a> Senior Seminar or Senior Thesis	N/A
<a href="#">BIO 150</a> Reasoning and Statistical Inference in Biology or <a href="#">MATH 110</a> Calculus I or <a href="#">MATH 150</a> Probability & Statistics	N/A
<a href="#">CHEM 115</a> Chemistry I	N/A
<a href="#">CHEM 116</a> Chemistry II	N/A
<a href="#">PHYS 109</a> Astronomy and Cosmology	N/A
<a href="#">PHYS 110/120</a> Introductory Physics	N/A

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**

