

## MAT Secondary Natural Sciences/Chemistry 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="#">CHEM 115</a> Chemistry I	N/A
<a href="#">CHEM 116</a> Chemistry II	N/A
<a href="#">CHEM 220</a> Organic Chemistry I	N/A
<a href="#">CHEM 221</a> Organic Chemistry II	N/A
<a href="#">CHEM 320</a> Physical Chemistry I	N/A
<a href="#">CHEM 321</a> Physical Chemistry II	N/A
<a href="#">300 Level CHEM Course</a> (300/340/420/490)	N/A
<a href="#">CHEM 410</a> Senior Seminar or Senior Thesis	N/A
<a href="#">PHYS 110/120</a> Introductory Physics	N/A
<a href="#">PHYS 111/121</a> Introductory Physics	N/A
<a href="#">MATH 110</a> Calculus I	N/A
<a href="#">MATH 111</a> Calculus II	N/A
<a href="#">BIO 120</a> Organismal Biology	N/A
<a href="#">BIO 220</a> Ecology and Evolution	N/A
<a href="#">PHYS 109</a> Astronomy and Cosmology	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/Chemistry Education Major Course Sequence and Program Assessment Checkpoints**

