

# Post-Baccalaureate Certification Only: Grades 4-8 Education: Science

## Curriculum

Course	Credits
<b>General Education: PDE Content Requirements</b>	
<b>English and Literature Composition</b>	<b>6</b>
<b>ENG 101</b> English Composition I	
American or British Literature Course	
<b>Mathematics (100 level or higher)</b>	<b>9</b>
<b>MAT 120</b> Elementary Topics I	
<b>MAT 130</b> Elementary Topics II	
<b>MAT 181</b> College Algebra	
<b>Social Sciences</b>	<b>6</b>
<b>HIS 101</b> OR <b>HIS 102</b>	
<b>ECO 102</b> Economics for Elementary Ed	1
<b>GEO 102</b> Geographic Systems	1
<b>POS 102</b> American Government for Elementary Ed	1
<b>Health and Wellness</b>	<b>3</b>
<b>HSC 115</b> Current Health Issues	
<b>Fine Arts</b>	<b>3</b>
<b>Program Requirements: PDE Professional Education Requirements</b>	
<b>Professional Education Courses</b>	<b>24</b>
<b>EDU 310</b> Tchg Multicultural Society	
<b>EDU 333</b> Technology for Tchg and Learning	

## Department of Education

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Course	Credits
<b>EDU 350</b> Supporting ELL in the Classroom	
<b>ESP 210</b> Special Ed. Found and Collaboration	
<b>ESP 311</b> Assessing Positive Behavior Interv.	
<b>ESP 412</b> Evidence Based Practices	
<b>PSY 206</b> Adolescent Psychology	
* <b>PSY 208</b> Educational Psychology	
<b>Grades 4-8 Specialization Courses</b>	<b>33</b>
<b>ELM 200</b> Intro to Middle Level Education	
<b>ELM 220</b> Instruction and Assessment in 4-8	
<b>ELM 301</b> Reading Methods Assessment and Interv.	
<b>ELM 302</b> Lang. Arts Methods Assessment and Interv.	
<b>ELM 311</b> Math Methods, Assessment and Interv.	
<b>ELM 321</b> Science Methods, Assessment and Interv.	
<b>ELM 331</b> Social Studies Methods, Assessment and Interv.	
<b>ELM 461</b> Student Teaching PreK-Grade 4 (see Teacher Handbook for requirements)	
<b>Concentration Courses</b>	<b>27</b>
<b>BIO 103</b> Contemporary Issues Biology	
<b>EAS 100</b> Intro to Earth Science	
<b>ELM 360</b> Environ, Ecology and Nature - Study Ed	
<b>PHS 120</b> Basic Phys. Science with Lab	
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## Department of Education

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Course	Credits
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<b>Field Experience Courses</b>	<b>6</b>
<b>ELM 411</b> Field Experience Grades 4-6	
<b>ELM 412</b> Field Experience Grades 7-8	
<b>Total</b>	<b>117</b>

\* Pre-requisite PSY 100 waived for this major.

\*\* **Concentration Courses:** Please consult with your science education adviser before selecting from the following concentration courses:

- **GLG 150** Intro to Geology
- **EAS 240** Intro to Meteorology
- **EAS 163** Intro to Oceanography
- **PHS 145** Astronomy
- **GLG 210** Intro to Soils
- **BIO 120** General Zoology (4 credits)
- **BIO 125** General Botany (4 credits)
- **ENS 101** Intro to Environmental Science
- **CHE 103** Chemistry in Every Day World
- **PHS 137** Intro to Environment Chemistry
- **PHY 121** General Physics I

### Program Notes:

- All courses required for certification with C- or lower must be repeated.
- All ELM and ESP courses require current clearances submitted before the first day of class.
- Pre-requisites for all ELM 300-level courses are ELM 200 and 220.
- All coursework must be completed before student teaching.
- Approved American/British literature courses: ENG 107, 127, 148, 150, 155, 203, 301, 302, 337, 338.
- Requirements
- PAPA qualifying scores at start of the program.
- GPA of 2.8 at start of the program.
- Appropriate Praxis II exams prior to student teaching.
- Admission to Teacher Education before registering for ESP 412.