# CHEMISTRY, B.S.ED.

## Major in Chemistry, BSE

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 188</td>
<td>WAIVED FOR TRANSFER STUDENTS</td>
<td></td>
</tr>
</tbody>
</table>

**100 AND 200 LEVEL CHEMISTRY REQUIREMENTS**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 111</td>
<td>Introductory Chemistry 1 (C minimum)</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 112</td>
<td>Introductory Chemistry 2 (C minimum)</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 231</td>
<td>Organic Chemistry 1 (C minimum)</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 232</td>
<td>Organic Chemistry 2 (C minimum)</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 251</td>
<td>Inorganic Chemistry 1 (C minimum)</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 265</td>
<td>Quantitative Analysis (C minimum)</td>
<td>4</td>
</tr>
</tbody>
</table>

**300 AND 400 LEVEL CHEMISTRY REQUIREMENTS**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>CHEM 326</td>
<td>Biochemistry 1</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 341</td>
<td>Physical Chemistry 1</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 342</td>
<td>Physical Chemistry 2</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 375</td>
<td>Environmental Chemistry</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 487</td>
<td>Seminar in Chemistry 1</td>
<td>0.5</td>
</tr>
<tr>
<td>CHEM 488</td>
<td>Seminar in Chemistry 2</td>
<td>0.5</td>
</tr>
</tbody>
</table>

**Total Hours**: 40

## Professional Education

**EDUCATIONAL FOUNDATIONS**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDFN 211</td>
<td>Foundations Modern Education</td>
<td>3</td>
</tr>
<tr>
<td>EDFN 241</td>
<td>Psychological Foundations of Teaching</td>
<td>3</td>
</tr>
</tbody>
</table>

**REQUIRED EDUCATION COURSES**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDSE 321</td>
<td>Issues in Secondary Education</td>
<td>3</td>
</tr>
<tr>
<td>EDFN 330</td>
<td>Instructional Technology, Design &amp; Assessment</td>
<td>3</td>
</tr>
<tr>
<td>EDSE 435</td>
<td>Teaching of Science in Secondary Schools</td>
<td>3</td>
</tr>
</tbody>
</table>

**ACCOMMODATIONS AND ADAPTATIONS**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDSE 340</td>
<td>Content Area Literacy for Diverse Classrooms</td>
<td>3</td>
</tr>
<tr>
<td>SPED 346</td>
<td>Secondary Students w/Disabilities in Inclusive Settings</td>
<td>3</td>
</tr>
</tbody>
</table>

**STUDENT TEACHING**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDSE 471</td>
<td>Student Teaching Seminar</td>
<td>3</td>
</tr>
<tr>
<td>EDSE 461</td>
<td>Student Teaching in Science</td>
<td>9</td>
</tr>
</tbody>
</table>

**Total Hours**: 33

## Req Related for Chemistry, BSE

**MATHEMATICS**

- Calculus I - Choose 1 of the following: 4-5
  - MATH 161 Calculus 1
  - MATH 163H Honors Calculus 1
  - MATH 211 Calculus 2
  - MATH 311 Calculus 3

**PHYSICS**

- PHYS 231 Physics 1 with Calculus: 5
- PHYS 232 Physics 2 with Calculus: 5

**BIOLOGY**

General Biology

Competency may be demonstrated by: 1) a course grade of 'A' or 'B' in AP Bioogy; 2) a score of 3 or better in the national AP exam; 3) a successful score on the CLEP exam; 4) a passing grade for General Biology (BIOL 100)

**Total Hours**: 22-23

## Advanced Professional Studies, BSE

**Code** | **Title**                                      | **Hours** |
<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>ENGL 110</td>
<td>English Composition</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 110H</td>
<td>Hnrs:English Composition</td>
<td></td>
</tr>
</tbody>
</table>

**apa requirements**

- English Composition - Choose 1 of the following: 3
  - ENGL 110 English Composition
  - ENGL 110H Hnrs:English Composition
- English Literature - Choose 1 of the following: 3
  - ENGL 230 Introduction to Literature
  - ENGL 231 World Literature 1
  - ENGL 232 World Literature 2
  - ENGL 233 Early British Literature
  - ENGL 234 Later British Literature
  - ENGL 235 American Literary Tradition I
  - ENGL 236 American Literary Tradition II
  - ENGL 241H H:Explorations in World Lit
  - ENGL 242 Reading Our World:
  - ENGL 292 Science Fiction
  - ENGL 333 African-American Literature 1
  - ENGL 333H Hnrs:African American Lit 1
  - ENGL 334 African American Literature 2
  - ENGL 334H Hnrs:African American Lit 2
  - ENGL 336 New Dimensions to World Lit
  - ENGL 338 Folklore and Literature
  - ENGL 401 Old Eng Lang and Literature
  - ENGL 402 Middle Eng Lang and Literature

**Mathematics**

Two Mathematics courses are required for BSE students. You have taken 0 course(s). It is preferable to take two courses designated as G2. Click here to search for MATH courses on the current web schedule. BIOL 375 will fulfill one Mathematics course for BSE BIOL students.

**Code** | **Title**                                      | **Hours** |
<table>
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<tr>
<td>EDFN 211</td>
<td>Foundations Modern Education</td>
<td>6</td>
</tr>
<tr>
<td>&amp; EDFN 241</td>
<td>Psychological Foundations of Teaching</td>
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</table>

**48 earned (transcript) credit hours are required**

**APS registration status**

You ARE NOT eligible to register for courses requiring APS status.

**ACT 126 - Educator Ethics Training**

You must submit your Educator Ethics Training.

**Pre-Service Testing Required**
Pre-Service Testing Status is indicated by one of the following: 1.) PSTA - Pre-Service Testing Accomplished: Verified passing pre-service test scores meet the requirement. 2.) PSTI - Pre-Service Testing Incomplete: Non-passing pre-service test scores were submitted prior to the August 1, 2015 policy change. Passing scores must still be achieved in order to meet the PA certification requirements. 3.) PSTU - Pre-Service Testing Unverified: Unofficial copies of pre-service test scores were submitted. Official scores must be sent from the testing company in order to meet PA certification requirements. 4.) PSTX - Pre-Service Testing Waived: Per PDE - ACT 136, the Pre-Service Testing Requirement has been waived.

Your GPA is below 3.0 - please see an advisor
If you are given the 2.8 GPA Exception for graduation and you graduate with a GPA lower than 3.0, you must have higher certification test scores in order to meet PA state certification requirements.

No dispositions-related holds
If the requirement above is checked as complete, then there are currently no dispositions-related holds on your APS Status. Registration for APS courses is permitted when all APS requirements have been met. If it is incomplete, you have a hold and APS registration will not be allowed.

Full Admission to APS
When all requirements are met, you must submit application for admission to APS status. Click here for the application.

Total Hours
12