# B.S.ED. IN CHEMISTRY

## Curriculum

### Code | Title | Credits
---|---|---
Several courses are required for the B.S.ED. in Chemistry, including:

**General Education Requirements**

- First Year Experience
  - **CHE 103**: General Chemistry I (3 credits)
  - **CHE 104**: General Chemistry II (3 credits)
  - **CHE 231**: Organic Chemistry I (4 credits)
  - **CHE 232**: Organic Chemistry II (3 credits)
  - **CHE 321**: Analytical Chemistry I (3 credits)
  - **CHE 418**: Chemical Information (1 credit)

**Academic Foundations**

- Mathematics requirement
  - **MAT 161**: Calculus I (4 credits)
  - **MAT 162**: Calculus II (4 credits)
  - **MAT 163**: Calculus III (4 credits)

**Distributive Requirements**

- Science requirement
  - **BIO 110**: General Biology (3 credits)
  - **CHE 103**: General Chemistry I (3 credits)
  - **CHE 104**: General Chemistry II (3 credits)
  - **CHE 231**: Organic Chemistry I (4 credits)
  - **CHE 232**: Organic Chemistry II (3 credits)
  - **CHE 321**: Analytical Chemistry I (3 credits)
  - **CHE 418**: Chemical Information (1 credit)

**Additional Baccalaureate Requirements**

- Writing Emphasis requirement
  - **WRT 120**: Introduction to Writing (3 credits)
- Speaking Emphasis requirement
  - **WRT 2XX**: Effective Speaking I (3 credits)

**Major Core Requirements**

- **CHE 103**: General Chemistry I (3 credits)
- **CHE 104**: General Chemistry II (3 credits)
- **CHE 231**: Organic Chemistry I (4 credits)
- **CHE 232**: Organic Chemistry II (3 credits)
- **CHE 321**: Analytical Chemistry I (3 credits)
- **CHE 418**: Chemical Information (1 credit)
- **CHE 491**: Seminar in Chemistry (1 credit)
- **CRL 103**: General Chemistry I Lab (1 credit)
- **CRL 104**: General Chemistry II Lab (1 credit)
- **CRL 231**: Organic Chemistry I Lab (2 credits)
- **CRL 321**: Analytical Chemistry I Lab (2 credits)
- **BIO 110**: General Biology (3 credits)
- **MAT 161**: Calculus I (4 credits)
- **MAT 162**: Calculus II (4 credits)
- **MAT 163**: Calculus III (4 credits)

**Education Requirements**

- **EDA 103**: Foundations of Special Education (3 credits)
- **EDA 304**: Special Ed Processes/Procedures for Secondary Educators (3 credits)
- **EDP 300**: Democracy and Education (3 credits)
- **EDP 250**: Educational Psychology (3 credits)

**Capstone Requirement**

- **EDS 411**: Student Teaching Sec - 1st Half (3 credits)
- **EDS 412**: Student Teaching Sec - 2nd Half (3 credits)

**Total Minimum Credits Required**: 126

1. Students in this program must take a LIT course and PHI 180 as humanities general education courses, and PSY 100 is recommended as a behavioral/social science general education course.
2. PHY 170 and BIO 110 fulfill science general education requirements.
3. SCE 350 and LAN 382/ENG 382 fulfill the diverse communities requirement, and EDF 300 fulfills the interdisciplinary requirement.
4. A grade of C- or better is necessary in all required science and mathematics courses.
5. This course fulfills the general education Capstone requirement.

## Sample Course Plan

**First Year Experience**

- **CHE 103**: General Chemistry I (3 credits)
- **CHE 104**: General Chemistry II (3 credits)
- **CHE 231**: Organic Chemistry I (4 credits)
- **CHE 232**: Organic Chemistry II (3 credits)
- **CHE 321**: Analytical Chemistry I (3 credits)
- **CHE 418**: Chemical Information (1 credit)

**Second Year**

- **MAT 161**: Calculus I (4 credits)
- **MAT 162**: Calculus II (4 credits)
- **MAT 163**: Calculus III (4 credits)

**Major Core Requirements**

- **CHE 103**: General Chemistry I (3 credits)
- **CHE 104**: General Chemistry II (3 credits)
- **CHE 231**: Organic Chemistry I (4 credits)
- **CHE 232**: Organic Chemistry II (3 credits)
- **CHE 321**: Analytical Chemistry I (3 credits)

**Education Requirements**

- **EDA 103**: Foundations of Special Education (3 credits)
- **EDA 304**: Special Ed Processes/Procedures for Secondary Educators (3 credits)
- **EDP 300**: Democracy and Education (3 credits)
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**Capstone Requirement**

- **EDS 411**: Student Teaching Sec - 1st Half (3 credits)
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2. PHY 170 and BIO 110 fulfill science general education requirements.
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4. A grade of C- or better is necessary in all required science and mathematics courses.
5. This course fulfills the general education Capstone requirement.

**Sample Course Plan**

To track their individual degree progress, students are advised to access their Degree Progress Report (DPR) via myWCU regularly. For more information, visit [wcupa.edu/DegreeProgressReport](http://wcupa.edu/DegreeProgressReport).

The following is a suggested course sequence for this program; course offerings and availability are not guaranteed. Students should consult their academic advisor with any questions.

### Course | Title | Credits
---|---|---
**Semester One**
- CRL 103: General Chemistry I Lab (1 credit)
- EDA 103: Foundations of Special Education (3 credits)
- EDA 304: Special Ed Processes/Procedures for Secondary Educators (3 credits)
- EDP 300: Democracy and Education (3 credits)
- EDP 250: Educational Psychology (3 credits)

**Semester Two**
- CHE 104: General Chemistry II (3 credits)
- & CRL 103: and General Chemistry I Lab (3 credits)
- MAT 161: Calculus I (4 credits)
- WRT 120: Effective Writing I (3 credits)
- FYE 100X: First Year Experience (4 credits)

**Semester Three**
- CHE 231: Organic Chemistry I (3 credits)
- & CRL 231: and Organic Chemistry I Lab (3 credits)
- CHE 321: Analytical Chemistry I (3 credits)
- & CRL 321: and Analytical Chemistry I Lab (3 credits)
- SCE 350: Science Education in Secondary School (3 credits)
- or SCB 350: Science Education in Secondary School (3 credits)

**Capstone Requirement**
- EDS 411: Student Teaching Sec - 1st Half (3 credits)
- EDS 412: Student Teaching Sec - 2nd Half (3 credits)

**Total Minimum Credits Required**: 126

1. Students in this program must take a LIT course and PHI 180 as humanities general education courses, and PSY 100 is recommended as a behavioral/social science general education course.
2. PHY 170 and BIO 110 fulfill science general education requirements.
3. SCE 350 and LAN 382/ENG 382 fulfill the diverse communities requirement, and EDF 300 fulfills the interdisciplinary requirement.
4. A grade of C- or better is necessary in all required science and mathematics courses.
5. This course fulfills the general education Capstone requirement.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>PHY 170</td>
<td>Physics I</td>
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**Semester Four**

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<td>CHE 232</td>
<td>Organic Chemistry II</td>
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<tr>
<td>&amp; CRL 232</td>
<td>and Organic Chemistry II Lab</td>
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<td>CHE 418</td>
<td>Chemical Information</td>
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<tr>
<td>PHY 180</td>
<td>Physics II</td>
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<td>EDA 103</td>
<td>Foundations of Special Education</td>
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<td>LIT 165</td>
<td>Topics in Literature</td>
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Apply for Candidacy at the end of the semester.

**Year Three**

**Semester Five**

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<tr>
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<td>Physical Chemistry I</td>
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<tr>
<td>&amp; CRL 341</td>
<td>and Physical Chemistry I Lab</td>
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<tr>
<td>EDA 304</td>
<td>Special Ed Processes/Procedures for Secondary Educators</td>
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<td>EDF 300</td>
<td>Democracy and Education</td>
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<td>Arts Gen ed</td>
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**Semester Six**

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<td>BIO 110</td>
<td>General Biology</td>
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<td>EDS 306</td>
<td>Teaching Principles and Field Experience in Secondary Schools</td>
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<td>PSY 100</td>
<td>Introduction to Psychology</td>
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<td>Behavioral &amp; Social Science Gen Ed</td>
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**Year Four**

**Semester Seven**

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<td>CHE 491</td>
<td>Seminar in Chemistry</td>
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<td>SCE 350</td>
<td>Science Education in the Secondary School</td>
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<td>LAN 382</td>
<td>Teaching English Language Learners PK-12</td>
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<tr>
<td>or ENG 382</td>
<td>Teaching English Language Learners PK-12</td>
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<tr>
<td>EDR 347</td>
<td>Literacy Development and Secondary Students with Disabilities in Inclusive Classrooms</td>
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<td>Behavioral &amp; Social Science Gen Ed</td>
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**Semester Eight**

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<td>EDS 412</td>
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**Total Credits** | 121

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1. Field course. Clearances required.