## BIOCHEMISTRY – B. S.

<table>
<thead>
<tr>
<th>First Year</th>
<th>Sophomore</th>
<th>Junior</th>
<th>Senior</th>
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<tbody>
<tr>
<td>Semester 1</td>
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<tr>
<td>CHEM 111 or 115</td>
<td>CHEM 201</td>
<td>CHEM 440</td>
<td>CHEM 440 or higher course** or</td>
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<tr>
<td>BIOL 207</td>
<td>BIOL 209</td>
<td>CHEM 331 (F) or 332 (S)</td>
<td>CHEM 331 (F) or 332 (S)</td>
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<tr>
<td>MATH 113*</td>
<td>PHYS 111</td>
<td>BCHM 301</td>
<td>BCHM 301</td>
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<tr>
<th>Semester 2</th>
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<tbody>
<tr>
<td>CHEM 112 or 300</td>
<td>CHEM 202</td>
<td>CHEM 442</td>
<td>CHEM 442 or higher course**</td>
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<tr>
<td>BIOL 208</td>
<td>PHYS 112</td>
<td>BIOL 295 or higher course**</td>
<td>BIOL 295 or higher course** or</td>
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<tr>
<td>MATH 114</td>
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<td>BCHM 302</td>
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**Elective courses in this interdisciplinary major must be selected only after consultation with a faculty advisor in the appropriate Chemistry or Biology departments.

### REQUIREMENTS FOR DEGREE

**Biochemistry majors who do not place into MATH 113 may start with MATH 108 Calculus with Review I. Students who do not place into MATH 108 should consult with the Math Resource Center (MaRC) about how best to prepare for MATH 108. Biochemistry majors should not take MATH 101 or MATH 111.**

**Four additional credits in CHEM, selected in consultation with the advisor. CHEM 300, Quantitative Analysis, is strongly recommended.**

**Allied Requirements**

- MATH 113 Calculus I (or equivalent)
- MATH 114 Calculus II
- PHYS 111 Introduction to Classical Physics I
- PHYS 112 Introduction to Classical Physics II

*Biochemistry majors who do not place into MATH 113 may start with MATH 108 Calculus with Review I. Students who do not place into MATH 108 should consult with the Math Resource Center (MaRC) about how best to prepare for MATH 108. Biochemistry majors should not take MATH 101 or MATH 111.*

**Four additional credits in CHEM, selected in consultation with the advisor. CHEM 300, Quantitative Analysis, is strongly recommended.**

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**Requirements for Degree**

- BIOL 207 Genetics, Ecology, and Evolution
- BIOL 208 Biological Communication and Energetics
- BIOL 209 Biology of Sustainability
  - or CHEM 115 per placement
- CHEM 201 Organic Chemistry I
- CHEM 202 Organic Chemistry II
- CHEM 440 Biochemistry I
- CHEM 442 Biochemistry II
- BCHM 301-303 Biochemistry Seminar Series (0-2 credits)

**Plus one of:**

- CHEM 331 Chemical Thermodynamics & Reaction Dynamics (Fall only)
- CHEM 332 Quantum Chemistry & Molecular Spectroscopy (Spring only)

**Plus:**

- Twelve additional credits numbered BIOL 295 or higher.
  - Four credits must be at the 400-level, excluding research.
  - Four credits may be in research at the 300-level.