Bachelor of Science in Biochemistry
Degree Requirements

1) Mathematics
   Regular or Honors
   □ 124 (5)   □ 134 (5)
   □ 125 (5)   □ 135 (5)
   □ 126 (5)   □ 136 (5)

2) Physics
   Calculus-based or Algebra-based
   □ 121 (5)   □ 114 (4)
   □ 122 (5)   □ 115 (4)
   □ 123 (5)   □ 116 (4)
   The calculus-based series is recommended.

3) General Chemistry
   Regular or Honors or Accelerated
   □ 142 (5) □ 145 (5) □ 143 (6)
   □ 152 (5) □ 155 (5) □ 153 (6)
   □ 162 (5) □ 165 (5)

4) Organic Chemistry
   Regular or Honors
   □ 237 (4) □ 335 (4)
   □ 238 (4) □ 336 (4)
   □ 239 (4) □ 337 (4)
   Laboratory
   □ 241 (3) □ 346 (3)
   □ 242 (3) □ 347 (3)
   Organic laboratory begins with the second lecture course.

5) Biology
   □ 180 (5)
   □ 200 (5)

6) Biochemistry
   □ 440 (4)
   □ 441 (4)
   □ 442 (4)
   □ 426 Laboratory (4)
   (Students may petition research experience be used for exemption from Bioc 426 lab. Consult advisers.)

7) Genome Science
   □ Genome 371 (5) or Genome 361 (3)

8) Physical Chemistry
   P-Chem for Biochemists or Regular
   □ 452 (3) □ 455 (3)
   □ 453 (3) □ 456 (3)
   □ 457 (3)

9) Science Electives
   Eleven credits from courses on the following list
   AMATH 351, 352, 410, 422, 423
   ATM S 358, 458
   BIOL 220, 300, 355, 401, 402, 411, 457, 459
   BIOST 310
   BSE 406
   CHEM 312, 317, 321, 410, 416, 417, 418, 419, 425
   CHEM 426, 429, 430, 431, 432, 434, 436, 458, 460
   CHEM 461, 462, 463, 464, 465, 484, 485, 486, 491
   CSE 427
   ENV H 431
   ESS 312, 457
   GENOME 372, 373, 465
   IMMUN 441
   MATH 307, 308
   MICROM 402, 410, 411, 412, 431, 445
   MSE 471, 475
   NBIO 404
   OCEAN 400
   Q SCI 381 or STAT 311

ADVANCED RESEARCH: Up to 9 credits of advanced undergraduate research may count toward this requirement. Research conducted outside of Chemistry or Biochemistry must first be approved by one of the undergraduate advisers.

- Additional 400 level science courses may be considered for science electives after consultation and a petition is submitted to the biochemistry advisers.
- *Credit not allowed for both Math 307 and Amath 351 or for both Math 308 and Amath 352 toward science elective requirement.
10) Model Schedule

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<tr>
<th>1st year</th>
<th>AUTUMN</th>
<th>WINTER</th>
<th>SPRING</th>
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<tr>
<td></td>
<td>Math 124 (5)</td>
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<td>Chem 152 (5)</td>
<td>Chem 162 (5)</td>
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<td>F L 103 (5)</td>
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<td>Chem 239 (3)</td>
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<td>Chem 237 (4)</td>
<td>Chem 238 (4)</td>
<td>Chem 242 (3)</td>
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<td>English Comp (5)*</td>
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<td>I &amp; S (5)*</td>
<td>VLPA (5)</td>
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<td>Phys 121 (5)</td>
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<td>I &amp; S (5)*</td>
<td>VLPA (5)*</td>
<td>VLPA &quot;W&quot; (5)*</td>
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<td>Bioc 426 (4)</td>
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<td>I&amp;S “W” (5)</td>
<td>Science Electives (3)</td>
<td>Genome 361 (3)</td>
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*Visual, Literary and Performing Arts (VLPA) & Individuals and Societies (I&S).

Students are strongly encouraged to include undergraduate research in their curricula. Chem 299 and 499 can replace the “W” credits shown.

Students are expected to understand and complete all general education requirements as detailed in the General Catalog.

Undergraduate advisers can help set up individual schedules according to students’ needs and constraints.

Note that registration for BIOC 426 is restricted during period 1 registration to seniors who have applied to graduate.

11) Major Credit and Grade Point Checklist

- Biochemistry degree requires **193 credits**.
  
  NOTE: Model Schedule (item #10) plans for up to 18 credits per quarter, which is above the standard 15. Students’ credit loads may vary. Time to degree completion will vary on a case-by-case basis.

- A minimum grade of **2.0** and a cumulative major GPA of **2.50** are required for all CHEM, BIOL, & BIOC courses counted toward the major.

- A minimum cumulative GPA of **2.50** is required in the BIOC 440, 441, 442 sequence.

- An overall cumulative grade point average of **2.50** is also required.

- All required courses must be taken for a decimal grade, unless only offered on a CR/NC basis.

6/2018