

***Bachelor of Science in Biochemistry
Degree Requirements***

(For students declaring biochemistry as their major spring quarter 2010 or later)

1) Mathematics

- | | | |
|----------------------------------|----|----------------------------------|
| Regular | or | Honors |
| <input type="checkbox"/> 124 (5) | | <input type="checkbox"/> 134 (5) |
| <input type="checkbox"/> 125 (5) | | <input type="checkbox"/> 135 (5) |
| <input type="checkbox"/> 126 (5) | | <input type="checkbox"/> 136 (5) |

2) Physics

- | | | |
|----------------------------------|----|----------------------------------|
| Calculus-based | or | Algebra-based |
| <input type="checkbox"/> 121 (5) | | <input type="checkbox"/> 114 (4) |
| <input type="checkbox"/> 122 (5) | | <input type="checkbox"/> 115 (4) |
| <input type="checkbox"/> 123 (5) | | <input type="checkbox"/> 116 (4) |

The calculus-based series is recommended.

3) General Chemistry

- | | | |
|----------------------------------|----------------------------------|----------------------------------|
| Regular | or Advanced | or Honors |
| <input type="checkbox"/> 142 (5) | <input type="checkbox"/> 144 (5) | <input type="checkbox"/> 145 (5) |
| <input type="checkbox"/> 152 (5) | <input type="checkbox"/> 154 (5) | <input type="checkbox"/> 155 (5) |
| <input type="checkbox"/> 162 (5) | <input type="checkbox"/> 164 (5) | <input type="checkbox"/> 165 (5) |

4) Organic Chemistry

- | | | |
|----------------------------------|----|----------------------------------|
| Regular | or | Honors |
| <input type="checkbox"/> 237 (4) | | <input type="checkbox"/> 335 (4) |
| <input type="checkbox"/> 238 (4) | | <input type="checkbox"/> 336 (4) |
| <input type="checkbox"/> 239 (3) | | <input type="checkbox"/> 337 (4) |
| Laboratory | | |
| <input type="checkbox"/> 241 (3) | | <input type="checkbox"/> 346 (3) |
| <input type="checkbox"/> 242 (3) | | <input type="checkbox"/> 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)

8) Physical Chemistry

- | | | |
|----------------------------------|----|----------------------------------|
| Pchem for
Biochemists | or | Regular |
| <input type="checkbox"/> 452 (3) | | <input type="checkbox"/> 455 (3) |
| <input type="checkbox"/> 453 (3) | | <input type="checkbox"/> 456 (3) |
| | | <input type="checkbox"/> 457 (3) |

9) Science Electives

Eleven credits from courses on the following list are required.

- | | |
|---|--|
| <input type="checkbox"/> AMATH 351 (3)* | <input type="checkbox"/> CHEM 458 (3) |
| <input type="checkbox"/> AMATH 352 (3)* | <input type="checkbox"/> CHEM 460 (3) |
| <input type="checkbox"/> AMATH 410 (3) | <input type="checkbox"/> CHEM 461 (3) |
| <input type="checkbox"/> BIOL 220 (5) | <input type="checkbox"/> CHEM 462 (2 or 3) |
| <input type="checkbox"/> BIOL 401 (5) | <input type="checkbox"/> CHEM 463 (2) |
| <input type="checkbox"/> BIOL 402 (3) | <input type="checkbox"/> CHEM 465 (3) |
| <input type="checkbox"/> BIOL 411 (4) | <input type="checkbox"/> GENOME 372 (5) |
| <input type="checkbox"/> BIOL 412 (3) | <input type="checkbox"/> GENOME 373 (5) |
| <input type="checkbox"/> CHEM 312 (3) | <input type="checkbox"/> GENOME 411 (5) |
| <input type="checkbox"/> CHEM 317 (4) | <input type="checkbox"/> IMMUN 441 (4) |
| <input type="checkbox"/> CHEM 321 (5) | <input type="checkbox"/> MATH 307 (3)* |
| <input type="checkbox"/> CHEM 410 (2) | <input type="checkbox"/> MATH 308 (3)* |
| <input type="checkbox"/> CHEM 416 (3) | <input type="checkbox"/> MICROM 402 (3) |
| <input type="checkbox"/> CHEM 417 (3) | <input type="checkbox"/> MICROM 410 (3) |
| <input type="checkbox"/> CHEM 418 (3) | <input type="checkbox"/> MICROM 411 (5) |
| <input type="checkbox"/> CHEM 419 (3) | <input type="checkbox"/> MICROM 412 (3) |
| <input type="checkbox"/> CHEM 426 (3) | <input type="checkbox"/> MICROM 431 (3) |
| <input type="checkbox"/> CHEM 429 (3) | <input type="checkbox"/> NBIO 404 (3) |
| <input type="checkbox"/> CHEM 436 (3) | <input type="checkbox"/> OCEAN 400 (4) |

- Up to 9 credits of advanced undergraduate research may count toward this requirement. Research conducted outside 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

1 st year	<u>AUTUMN</u> Math 124 (5) Chem 142 (5) Foreign Lang 101 (5)	<u>WINTER</u> Math 125 (5) Chem 152 (5) F L 102 (5) Electives (2)	<u>SPRING</u> Math 126 (5) Chem 162 (5) F L 103 (5) Electives (2)
2 nd year	<u>AUTUMN</u> Biol 180 (5) Chem 237 (4) Electives (7)	<u>WINTER</u> Biol 200 (5) Chem 238 (4) Chem 241 (3) I & S (5)*	<u>SPRING</u> Chem 239 (3) Chem 242 (3) English Comp (5)* VLPA (5)
3 rd year	<u>AUTUMN</u> Bioc 440 (4) Phys 121 (5) I & S (5)* Electives (2)	<u>WINTER</u> Bioc 441 (4) Phys 122 (5) VLPA (5)* Electives (3)	<u>SPRING</u> Bioc 442 (4) Phys 123 (5) VLPA "W" (5)* Electives (3)
4 th year	<u>AUTUMN</u> Bioc 426 (4) Chem 452 (3) I&S "W" (5) Science Electives (5)	<u>WINTER</u> Chem 453 (3) Science Electives (3) VLPA (5)* Electives (5)	<u>SPRING</u> Genome 371 (5) Science Electives (3) I & S (5)* Electives (3)

*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 and on-line at <http://www.washington.edu/students/ugrad/advising/ged/#A&Sgened>.

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 **197 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.

STUDENTS WHO HAVE DECLARED BIOCHEMISTRY PRIOR TO SPRING QUARTER 2010 MAY CHOOSE TO FOLLOW THE DEGREE REQUIREMENTS THAT WERE IN EFFECT PRIOR TO SPRING QUARTER 2010.