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

1st year	AUTUMN Math 124 (5) Chem 142 (5) Foreign Lang 101 (5)	WINTER Math 125 (5) Chem 152 (5) F L 102 (5) Electives (2)	SPRING Math 126 (5) Chem 162 (5) F L 103 (5) Electives (2)
2nd year	AUTUMN Biol 180 (5) Chem 237 (4) Electives (7)	WINTER Biol 200 (5) Chem 238 (4) Chem 241 (3) I & S (5)*	SPRING Chem 239 (3) Chem 242 (3) English Comp (5)* VLPA (5)
3rd year	AUTUMN Bioc 440 (4) Phys 121 (5) I & S (5)* Electives (2)	WINTER Bioc 441 (4) Phys 122 (5) VLPA (5)* Electives (3)	SPRING Bioc 442 (4) Phys 123 (5) VLPA "W" (5)* Electives (3)
4th year	AUTUMN Bioc 426 (4) I&S "W" (5) Science Electives (8)	WINTER Chem 452 (3) Science Electives (3) VLPA (5)* Electives (5)	SPRING Chem 453 (3) Genome 361 (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.

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.