

Suggested Study Plan For B.S. Biochemistry Major (with MAC), 2025 onward

See ACS Certification Option*

MXX = Minerva; CIC = College Requirement; CW = College Writing

Freshman Year	
<u>Fall</u>	<u>Credits</u>
CHE 111, 112 General Chemistry I & Lab (MSDA) ^{F,S,Su}	3+1
FYE 101 Succeed at the G (Chem/Biochem Section) ^F (MFND)	3
BIO 111 Principles of Biology I & Lab ^{F,S,Su}	3+1
Any Course in Written Communication (MWC) (Ex. ENG 101)	3
	/14

Freshman Year	
<u>Spring</u>	<u>Credits</u>
CHE 114, 115 General Chemistry II & Lab (MSDA) ^{F,S,Su}	3+1
BIO 112 Principles of Biology II & Lab ^{F,S,Su} (MNTS)	3+1
MAT 190 PreCalculus (MQR) ^{F,S,Su}	4
Any Course in Oral Communications (MOC)	3
Any Course in Civics and Community (MCC)**	3/17

Sophomore Year	
<u>Fall</u>	<u>Credits</u>
CHE 342 Inorganic Chemistry I ^F (CIC-NDS)	3
CHE 351 ^{F,S,Su} ,353 ^F Organic Chem I & Lab	4+1
MAT 196 Calculus A (MQR) ^{F,S,Su}	4
Language or Culture (CIC)	3
	/15

Sophomore Year	
<u>Spring</u>	<u>Credits</u>
CHE 352 Organic Chemistry II ^{F,S,Su}	3
CHE355 Inter Organic Chem Lab ^S	2
PHY 211 General Physics I & Lab ^{F,S,Su} (MNTS)	4
MAT 296 Calculus B	4
Language or Culture (CIC)	3/ 16

Junior Year	
<u>Fall</u>	<u>Credits</u>
CHE 331, 333 Quantitative Analysis & Lab (CW) ^F	3+1
CHE 456 Biochemistry I ^F	3
Any Course in Health & Wellness (MHW)	3
PHY 212 General Physics II & Lab ^{F,S,Su}	4
Any Course in CT Humanities/Fine Arts (MHFA)	3/ 17

Junior Year	
<u>Spring</u>	<u>Credits</u>
CHE 457, 458 Biochemistry II & Lab ^S (CW)	3+1
BIO 355 or 392 Cell Biology or Genetics & BIO 375 Lab ^{F,S}	5
Any Course in Global & Intercultural Engagement (MGIL)	3
Any Course in Humanities (CIC)	3
	/15

Senior Year	
<u>Fall</u>	<u>Credits</u>
CHE 401 Chemistry Seminar ^{F,S}	P/NP
CHE 406 Intro. Physical Chemistry ^F	4
CHE 407 Intro. Physical Chemistry Lab ^F	1
Advanced Elective for the Major	2-3
Any Course in Social & Behavioral Science (CIC)	3
Elective	3/13-14

Senior Year	
<u>Spring</u>	<u>Credits</u>
CHE 402 Chemistry Seminar ^{F,S}	1
Advanced Elective for the Major	3
Any Course in Humanities (CIC)	3
Any Course in CT Social/ Behavioral Science (MSBS)	3
Elective	3
	13

*Students completing the BS Biochemistry degree are close to completing the requirements necessary to have the degree certified by the American Chemical Society. By completing a) the Adv Biochem Elective (excluding BIO494) and either two credits of research or two other advanced labs OR b) 4 credits of undergraduate research, the degree will be certified.

** Starting Fall 2025, the MDEQ (Diversity and Equity) marker will be replaced by the MCC (Civics and Community) marker. However, students in the 2024 or earlier catalog years who have not completed their MDEQ requirement are no longer required to do so. They may take any 3-credit course as an elective instead. As a result, these students will need only 10 MAC competencies instead of 11. If a student has already taken a course with the MDEQ marker, it will count as their elective.

Major Requirements

CHE 111*, 112*, 114, 115, 331, 333, 342, 351, 352, 353, 355, 401 (audit), 402, 406, 407, 456, 457, 458

Related Area Requirements

1. MAT 196*, 296
2. BIO 111, 112, BIO 375 Lab, and either BIO 355 or BIO 392
3. PHY 211, 212 or 291, 292
4. ADVANCED ELECTIVES: Select 7 credits; at least 3 credits must be CHE. **Requirement is only 5 credits if CHE 481 is chosen. 7 Semester hours in CHE 427, 431, 436, 442, 453, 455, 470B or 481**, 491, 492, BIO 277 & 277L, 355, 392, 424, 443, 464 & 464L, 478, 479 & 479L, 481 & 481L, 482, 485, 494, 495, 499; PHY 495.

IT IS EXTREMELY IMPORTANT TO CONSULT FREQUENTLY WITH YOUR ADVISOR TO ARRANGE PROPER SCHEDULING OF COURSES AND TO LEARN ABOUT ANY CURRICULAR OR SCHEDULING CHANGES FOR REQUIRED COURSES.

FOOTNOTES FOR B.S. BIOCHEMISTRY STUDY PLAN

1. All BS majors must complete mathematics through at least MAT 296 (Calculus B). Depending on their individual mathematics background, some students may start with MAT 190 instead of MAT 196. MAT 190 is a one-semester precalculus course for science majors. Based on their scores on the Calculus Readiness Diagnostic Test (CRDT), students will begin their calculus journey in different math courses:

- High score: MAT 196
- Medium score: MAT 196 + MAT 181
- Low score: MAT 190
- Lower score: MAT 115 or MAT 183

See details here: <https://mathstats.uncg.edu/undergraduate/placement/calculus-diagnostic-test/>

2. BS students (0-6 hours) - can be satisfied in one of these three ways:

6 hours of additional language coursework related to a single language, between the 101-204 level, depending on their starting point in the language	3 hours of additional language coursework, between the 101-204 level, depending on their starting point in the language, and a CIC Culture course	6 hours of CIC Culture courses
--	---	--------------------------------

3. The sequence listed here for meeting the Minerva Academic Requirements (MAC) and College additional requirements (CIC) (identified by capital letters in parentheses) is a suggestion only and may be arranged to fit each student's particular situation. Note: Two College Writing courses must be completed.

4. Only major requirement and related area requirement courses at or below the 300-level in which grades of C- or better are earned will be counted toward the major. Students must earn a C- or better in prerequisite major requirement and related area requirement courses before advancing to subsequent courses. Students must have an overall GPA of at least 2.0 in CHE courses at UNC Greensboro.

5. All students must complete either BIO 355 Cell Biology or BIO 392 Genetics. BIO 375 Cell Biology and Genetics Lab is also required.