

**SUGGESTED STUDY PLAN FOR B.S. IN CHEMISTRY -  
BIOCHEMISTRY CONCENTRATION** See ACS Certification Option \*

<b>Freshman Year</b>	
<u>Fall</u>	<u>Sem. Hours</u>
CHE 111,112 General Chemistry I <sup>F,S,Su</sup>	4
CHE 170 Engaging in Chem&Biochem	1
BIO 111 Principles of Biology I <sup>F,S,Su</sup>	4
MAT 151 PreCalculus II <sup>F,S,Su</sup> or MAT 190 <sup>F,S</sup>	3
ENG 101 (GRD)	3 / 15

<b>Freshman Year</b>	
<u>Spring</u>	<u>Sem. Hours</u>
CHE 114, 115 General Chemistry II <sup>F,S,Su</sup>	4
BIO 112 Principles of Biology II <sup>F,S,Su</sup>	4
MAT 191 Calculus <sup>F,S,Su</sup>	3
Hist Persp Modern (GHP/GMO)	3
Foreign Language (GFL)	3 / 17

<b>Sophomore Year</b>	
<u>Fall</u>	<u>Sem. Hours</u>
CHE 342 Inorganic Chemistry <sup>F</sup>	3
CHE 351 <sup>F,S,Su</sup> ,353 <sup>F</sup> Organic Chem I & Lab	5
MAT 292 Calculus II <sup>F,S,Su</sup>	3
Fine Arts (GFA)	3
Foreign Language (GFL)	3/ 17

<b>Sophomore Year</b>	
<u>Spring</u>	<u>Sem. Hours</u>
CHE 352 Organic Chem II <sup>S,Su</sup>	3
CHE 355 Int Organic Chem Lab <sup>S</sup>	2
PHY 291 General Physics I <sup>S</sup>	4
Reasoning & Discourse (GRD)	3
Foreign Language (GFL)	3/ 15

<b>Junior Year</b>	
<u>Fall</u>	<u>Sem. Hours</u>
CHE 331, 333 Quantitative Analysis <sup>F</sup>	4
PHY 292 General Physics II <sup>F</sup>	4
BIO 392 Genetics <sup>F,S</sup> & BIO 375 Lab	5
Foreign Language (GFL)	3
	3 / 16

<b>Junior Year</b>	
<u>Spring</u>	<u>Sem. Hours</u>
CHE 431, 433 Instrumental Analysis <sup>S</sup>	4
Social/ Behavioral Science (GSB)	3
Social/ Behavioral Science (GSB)	3
Literature (GLT)	3
Reasoning & Discourse (GRD)	3 / 16

<b>Senior Year</b>	
<u>Fall</u>	<u>Sem. Hours</u>
CHE 401 Chemistry Seminar <sup>F,S</sup>	P/NP
CHE 456 Biochemistry I <sup>F</sup>	3
CHE 461, 407 Physical Chemistry & Lab <sup>F</sup>	5
Social/ Behavioral Science (GSB)	3
Hist Persp Pre Mod (GHP/GPM)	3
Philosophical, Religious, Ethical Prin. ( GPR)	3 / 17

<b>Senior Year</b>	
<u>Spring</u>	<u>Sem. Hours</u>
CHE 402 Chemistry Seminar <sup>F,S</sup>	1
CHE 462 Physical Chemistry <sup>S</sup>	3
CHE 457, 458 Biochemistry II & Lab <sup>S</sup>	4
CHE 491 and/or 492 (3 credits total)	3
Literature(GLT)	3
	/ 15

Marker Courses: Four GL/GN; Two SI (one in major); Four WI (one in major, one >300 level)

\*Students completing the BS Chemistry with Concentration in Biochemistry degree are close to completing the requirements necessary to have the degree certified by the American Chemical Society. By adding one lab course or research beyond 333, 353,355, 407, 433, 458 to the degree, the degree will be certified.

The Concentration in Biochemistry provides a specialization in biochemistry within the curriculum leading to the B.S. in Chemistry. This concentration is designed to prepare students for graduate programs in biochemistry, medicine and related professions, or for employment in biochemistry or biotechnology industries. The proper scheduling of courses is important, and the student should work closely with a biochemistry advisor ( Dr. Reddick) when planning a schedule.

## FOOTNOTES FOR B.S. WITH BIOCHEMISTRY CONCENTRATION STUDY PLAN

1. All majors must complete mathematics\* at least through MAT 292 Calculus II. Depending upon the individual mathematics background\*, some students may start with MAT 150 rather than MAT 151 and extend the sequence of math courses by one semester. MAT 190 is a one-semester precalculus course for science majors. Majors are strongly advised to elect additional advanced mathematics courses. A Math Placement Test should be taken. (\*See <http://www.uncg.edu/mat/undergraduate/mathplacetest.html>)
2. If the student is able to begin Foreign Language at the intermediate level in the Freshman Year, a second year of language may not be required. The requirement is Foreign Language through the Intermediate (204) level.
3. The sequence listed here for meeting the General Education and College Additional Requirements (identified by capital letters in parentheses) is a suggestion only and may be arranged to fit each student's particular situation. CST 105, which fulfills the GRD requirement, is also recommended.
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. Advanced Biochemistry requirement: 3 credits in CHE 492-492 (Indep. Study). Electives should be sufficient to complete the 120 semester hours required for the degree. One additional advanced biology course (e.g., BIO 355 or 481) is strongly recommended.
6. Senior Chemistry majors register for CHE 401 and attend seminar this first semester. All must register for CHE 402 for the second semester. A grade will be given in the second semester, based on presentation and attendance in CHE 401 and CHE 402. Juniors are encouraged to attend.

### Major Requirements

CHE 111, 112, 114, 115, 242, 331, 333, 351, 352, 353, 355, 401 (audit), 402, 407, 461, 462, 431, 433, 456, 457, 458

### Related Area Requirements

1. Adv. Biochem: 3 credits from CHE 491, CHE 492
2. BIO 111, 112, 392
3. MAT 191, 292
4. PHY 291, 292