

# Suggested Study Plan For B.S. Chemistry with Concentration in Research (with MAC)

See ACS Certification Option\*

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

<b>Freshman Year</b>	
<u>Fall</u>	<u>Sem. Hours</u>
CHE 111, 112 General Chemistry I (MDA) <sup>F,S,Su</sup>	3+1
FYE 101 Foundations (MFND) (Chem Biochem Section) <sup>F</sup>	3
MAT 190 PreCalculus (MQR) <sup>F,S,Su</sup>	4
ENG 101 (MWC)	3
	/ 14

<b>Freshman Year</b>	
<u>Spring</u>	<u>Sem. Hours</u>
CHE 114 General Chemistry II (MNTS) <sup>F,S,Su</sup>	3
CHE 191 Introduction To Research <sup>F,S,Su</sup>	1
MAT 196 Calculus A (MQR) <sup>F,S,Su</sup>	4
Oral Communications (MOC)	3
Foreign Language (CIC1)	3
	/ 14

<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	4+1
CHE 291 Sophomore Research	3
MAT 296 Calculus B <sup>F,S,Su</sup>	4
Foreign Language (CIC2)	3/ 17

<b>Sophomore Year</b>	
<u>Spring</u>	<u>Sem. Hours</u>
CHE 352 Organic Chemistry II <sup>S,Su</sup>	3
CHE 355 Inter Organic Chemistry Lab <sup>S</sup>	2
CHE 292 Sophomore Research	3
PHY 211 General Physics I <sup>F, S, Su</sup>	4
Foreign Language (CIC3)	3/ 15

<b>Junior Year</b>	
<u>Fall</u>	<u>Sem. Hours</u>
CHE 331, 333 Quantitative Analysis (CW) <sup>F</sup>	3+1
CHE 391 Junior Research	3
PHY 212 General Physics II <sup>F</sup>	4
CT Social/ Behavioral Science (MSBS)	3
Foreign Language (CIC4)	3 / 14

<b>Junior Year</b>	
<u>Spring</u>	<u>Sem. Hours</u>
CHE 392 Junior Research	3
Global & Intercultural Engagement (MGIL)	3
Diversity & Equity (MDEQ)	3
CT Humanities/Fine Arts (MHFA)	3
	/15

<b>Senior Year</b>	
<u>Fall</u>	<u>Sem. Hours</u>
CHE 401 Chemistry Seminar <sup>F,S</sup>	P/NP
CHE 491 Senior Research	3
CHE 406 Introductory Physical Chemistry <sup>F</sup>	4
Advanced Chemistry Elective	2-3
Health & Wellness (MHW)	3
Social & Behavioral Science (CIC)	3 / 15-16

<b>Senior Year</b>	
<u>Spring</u>	<u>Sem. Hours</u>
CHE 402 Chemistry Seminar <sup>F,S</sup>	1
CHE 492 Senior Research	2
CHE 499	1
Advanced Chemistry Elective	3
Humanities (CIC) (Two courses)	6
College Writing (CW)*	3/16

\*Can be fulfilled coincident with another requirement

\*Students completing the BS Chemistry with Concentration in Research degree can complete the requirements necessary to have the degree certified by the American Chemical Society. By choosing CHE 420 for the Advanced Chemistry Elective, two more advanced chemistry courses, and adding one lab course beyond CHE 333 and CHE 355 to the degree, the degree will be certified.

## **FOOTNOTES FOR STUDY PLAN FOR B.S. CHEMISTRY WITH CONCENTRATION IN RESEARCH**

1. All B.S. with Concentration in Research majors must complete mathematics at least through MAT 296 Calculus B. Depending upon the individual mathematics background\*, some students may start with MAT 190 rather than MAT 196. MAT 190 is a one-semester precalculus course for science majors. Some students may take MAT 181 Foundations of Calculus along with MAT 196. Majors are strongly advised to elect additional advanced mathematics courses. A Calculus Readiness Diagnostic Test should be taken. (\*See <https://mathstats.uncg.edu/undergraduate/placement/calculus-diagnostic-test/>)
2. The requirement is Foreign Language through the Intermediate (204) level. 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. Students who are native speakers of a second language may be exempted from the Foreign Language requirement.
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. Electives may be taken in any area, including chemistry, related sciences, and mathematics. Additional hours may be taken in the major and related areas.
6. Chemistry and Biochemistry majors can register for CHE 401 any time after achieving junior status. All must register for CHE 402 in their last semester. A grade will be given in the semester CHE 402 is completed, based on presentation and attendance in CHE 401 and CHE 402. All majors are encouraged to attend seminar even if not registered for CHE 401 or CHE 402.

### **Major Requirements**

1. CHE 111\*, 112\*, 114, 191, 291, 292, 331, 333, 342, 351, 352, 353, 355, 391, 392, 401 (audit), 402, 406, 491, 492.
2. Two courses from among: CHE 420 or 456 and 457 (which count as one course), 442, 481, 431, 453, 455.

### **Related Area Requirements**

1. MAT 196\*, 296
2. PHY 211, 212 or 291\*, 292