

Bachelor of Science in Chemistry and a Concentration in Biochemistry	
MAJOR REQUIREMENTS/CHEMISTRY: 33 Credits	Credits
CE-111: General Chemistry I	3.0
CE-111L: General Chemistry I Lab	1.0
CE-112: General Chemistry II	3.0
CE-112L: General Chemistry II Lab	1.0
CE-221: Quantitative Analysis	3.0
CE-221L: Quantitative Analysis Lab	2.0
CE-241: Organic Chemistry I	3.0
CE-241L: Organic Chemistry I Lab	2.0
CE-242: Organic Chemistry II	3.0
CE-242L: Organic Chemistry II Lab	2.0
CE-311: Chemical Literature	1.0
CE-322: Instrumental Analysis	3.0
CE-322L: Instrumental Analysis Lab	1.0
CE-341: Physical Chemistry I	3.0
CE-341L: Physical Chemistry I Lab	1.0
CE-410: Seminar	1.0
CONCENTRATION REQUIREMENTS/BIOCHEMISTRY: 24 Credits	Credits
CE-331: Biochemistry I	3.0
CE-332: Biochemistry II	3.0
CE-342: Physical Chemistry II	3.0
CE-342L: Physical Chemistry II Lab	1.0
CE-452: Advanced Organic Chemistry	3.0
BY-110: Introduction to Cell and Molecular Biology	4.0
BY-410: Molecular Biology	3.0
<b>Take 4 Credits from the Following Courses:</b>	4.0
BY-223: General Microbiology	
BY-423: Genetics	
REQUIREMENTS OUTSIDE MAJOR: 18 Credits	Credits
MA-125: Calculus with Analytic Geometry I	4.0
MA-126: Calculus with Analytic Geometry II	4.0
PH-211: General Physics and Calculus I	4.0
PH-211L: General Physics with Calculus I Lab	1.0
PH-212: General Physics with Calculus II	4.0
PH-212L: General Physics with Calculus II Lab	1.0
FREE ELECTIVES: 17 Credits	Credits
_____	17.0
_____	
_____	
<p><i>*By careful choice of electives, the BS in Chemistry and a Concentration in Biochemistry can meet the requirements for American Chemical Society Certification. Students wishing to graduate with an ACS certified degree must take CE-401 and CE-401L, and apply to the Department Chair.</i></p> <p><i>*Students who major in this concentration cannot also major in the Advanced Chemistry Concentration.</i></p>	

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GENERAL EDUCATION REQUIREMENTS: 36 Credits		Credits
First Year Seminar	FY-101: First Year Seminar *(Select Section "CE")	3.0
Reading and Writing	EN-101: College Composition I	3.0
	EN-102: College Composition II	3.0
Mathematics	Fulfilled in Outside Major Requirements with MA-125 or MA-126	0.0
Natural Sciences	Fulfilled in Major Requirements with required CE and BY courses	0.0
Literature	3 Credits from courses designated with Course*Type: LIT	3.0
Aesthetics and Creativity	3 Credits from Art, Music, Theatre, or Dance	3.0
Technological Literacy	IT-102: Information Technology for Scientists	3.0
Reasoned Oral Discourse	Fulfilled in Major Requirements with CE-410	0.0
Historical Perspective	3 Credits from courses designated with Course*Type: HS.SV	3.0
Social Science	3 Credits from courses designated with Course*Type: SS.SV	3.0
Historical Perspective/Social Sciences	3 Credits from courses designated with Course*Type: HS.SV or 3 Credits from courses designated with Course*Type: SS.SV	3.0
Interdisciplinary Perspectives	3 Credits from courses designated with Course*Type: ISP	3.0
Cultural Diversity and Global Understanding or Foreign Language	3 Credits from courses designated with Course*Type: CD and 3 Credits from courses designated with Course*Type: GU or 6 Credits from the SAME foreign language	6.0
Experiential Education	One course designated with Course*Type: EX	0.0
Writing Intensive	Two courses from Chemistry (CE) designated with Course*Type: WT	0.0
		0.0

**Minimum Credits for Bachelor of Science in Chemistry and a Concentration in Biochemistry = 128.0**

**NOTES:**

\* 58 credits must be completed at the 200 level or higher.