

Degree: Chemistry, B.A. 21-22				
Requirement Area	Course	Course Title	Prerequisites	Units
<b>First Semester (FALL)</b>				
E	GS 101A	Foundations of Success I		1
A1		Oral Communication		3
LD Major	CHEM 111	General Chemistry I		5
			One from the following: Satisfactory score of 78 or higher on Mathematics Placement Exam, MATH 120 or MATH 125 (either course with grade C- or better).	
B4/LD Major	MATH 130	Calculus I		4
F		Ethnic Studies		3
		<b>Total:</b>		16
<b>Second Semester (SPRING)</b>				
E	GS 101A	Foundations of Success II		1
A2		Written Communication		3
C1		Arts		3
LD Major	MATH 131	Calculus II	MATH 130 with grade C- or better.	3
LD Major	CHEM 112	General Chemistry II	CHEM 111 with grade C- or better.	5
		<b>Total:</b>		15
<b>Third Semester (FALL)</b>				
E		Lifelong Learning and Self-Development		1
A3		Critical Thinking		3
B2		Life Science		3
C2		Humanities		3
UD Major	CHEM 331	Organic Chemistry I	CHEM 112 with grade C- or better.	5
		<b>Total:</b>		15
<b>Fourth Semester (SPRING)</b>				
Second Composition		Second Comp		3
UD Major	CHEM 332	Organic Chemistry II	CHEM 331 with grade C- or better.	5
LD Major	CHEM 220	Quantitative Analysis	CHEM 112 with grade C- or better.	4
Elective				3
		<b>Total:</b>		15
<b>Fifth Semester (FALL)</b>				
B1/B3	PHYS 125	Principles of Physics I	Satisfactory score of 78 or higher on Math Proficiency Assessment or MATH 120	4
UD-B/Overlay		UD Science	Completion of GE areas A1, A2, A3, B1 and B4.	3
UD Major	CHEM 340	Survey of Biochemistry	CHEM 230 or CHEM 332, both with grade C- or better.	3
Elective				3
Elective				3
		<b>Total:</b>		16
<b>Sixth Semester (SPRING)</b>				
UD Major	CHEM 320	Bioanalytical and Forensic Laboratory	CHEM 230 or CHEM 332, both with grade C- or better.	3
UD Major	PHYS 126	Principles of Physics II	PHYS 125.	4
D1/Code 1		Social Science/US Code		3
Add'l C1 or C2*		Art or Humanities		3
Elective				2
		<b>Total:</b>		15
<b>Seventh Semester (FALL)</b>				
Code 2		US Code		3
D2		Social Science		3
UD Major		Chemistry elective		3
UD Major	CHEM 350	Biophysical Chemistry	CHEM 112, MATH 131, and PHYS 126 or PHYS 136, all with grade C- or better.	3
elective				3
		<b>Total:</b>		15
<b>Eighth Semester (SPRING)</b>				
UD Major	CHEM 470	Chemical Literature	CHEM 332 with grade C- or better.	1
UD Major		Chemistry elective		3
UD-D/Overlay		UD Social Science	Completion of GE areas A1, A2, A3, B1 and B4.	3
UD-C/Overlay		UD Art or Humanities	Completion of GE areas A1, A2, A3, B1 and B4.	3
Elective				3
		<b>Total:</b>		13
<b>Total Units:</b>				120

Note: No changes to, or from, the credit/no credit pattern are permitted after the Grade Type Change period. There are no exceptions to this rule. Courses in a student's major department, regardless of course prefix, may not be taken "CR/NC," unless that is the only grading pattern in the course.

CSUEB General Breadth and Graduation Requirement Checklist	
<b>Area A (9 units): Communication in the English Language &amp; Critical Thinking (Must earn passing grade of C-/CR or better)</b>	
<input type="checkbox"/> A1. COMM 100 or 104, MLL 111 <input type="checkbox"/> A2. ENGL 101, 102, or 104 <input type="checkbox"/> A3. PHIL 100	
<b>Area B (9 units): Scientific Inquiry &amp; Quantitative Reasoning</b>	
<input type="checkbox"/> B1. Physical Science <input type="checkbox"/> B2. Life Science <input type="checkbox"/> B3. Laboratory Activity <input type="checkbox"/> B4. Quantitative Reasoning (Must earn passing grade of C-/CR or better.)	
<b>Area C (9 units): Arts &amp; Humanities - Minimum of three different disciplines as designated by course prefix (e.g., ART, THEA, MUS)</b>	
<input type="checkbox"/> C1. Arts <input type="checkbox"/> C2. Humanities <input type="checkbox"/> *Additional Lower-division Area C Course in Arts (C1) or Humanities (C2)	
<b>Area D (6 units): Social Sciences - Minimum of three different disciplines as designated by course prefix (e.g., ANTH, ECON, POSC)</b>	
<input type="checkbox"/> D1. <input type="checkbox"/> D2.	
<b>Area E (3 units): Lifelong Learning and Self-Development</b>	
<input type="checkbox"/> E.	
<b>Area F (3 units): Ethnic Studies</b>	
<input type="checkbox"/> F.	
<b>Second Composition: Requires completion of GE A2 with a C-/CR or better. Must be completed before attaining junior standing.</b>	
<input type="checkbox"/> Second Composition	
<b>U.S. Code (American Institutions Requirement) - Two courses (6 units) covering three U.S. Code Requirements of US-1 (U.S. History), US-2 (U.S. Constitution), and US-3 (California State &amp; Local Government).</b>	
<input type="checkbox"/> Code 1.	
<input type="checkbox"/> Code 2.	
<b>Upper Division GE Requirements (9 units): Should be taken after completion of A1, A2, A3, and B4 with a C- (CR)</b>	
<input type="checkbox"/> UD-B. Upper-division Science Inquiry and Quantitative Reasoning <input type="checkbox"/> UD-C. Upper-division Arts OR Humanities <input type="checkbox"/> UD-D. Upper-division Social Sciences	
<b>Overlay Requirements (9 units): Courses may be upper or lower division, and GE or major</b>	
<input type="checkbox"/> Diversity (Div)	
<input type="checkbox"/> Social Justice (SJ) <input type="checkbox"/> Sustainability (S)	
<b>Elective Courses</b>	
Students not choosing the concentration in Chemistry Education coursework must complete a minimum of six (6) units from the following:	
CHEM 410 - Advanced Inorganic Chemistry Units: 4	
CHEM 415 - Inorganic Chemistry Laboratory Units: 2	
CHEM 420 - Instrumental Analysis Units: 3	
CHEM 425 - Environmental Chemistry Units: 4	
CHEM 430 - Advanced Organic Chemistry Units: 3	