

Degree: Chemistry, B.A. 23-24				
Requirement Area	Course	Course Title	Prerequisites	Units
First Semester (FALL)				
E	SCI 130	Connecting to STEM Majors		2
A1		Oral Communication		3
LD Major	CHEM 111	General Chemistry I		5
B1/LD Major	CHEM 111	General Chemistry I		3
B3/LD Major	CHEM 111L	General Chemistry Lab I		2
F		Ethnic Studies		3
		Total:		17
Second Semester (SPRING)				
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
		Total:		14
Third Semester (FALL)				
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	5
		Total:		15
Fourth Semester (SPRING)				
Second Composition		Second Comp		3
UD Major	CHEM 332	Organic Chemistry II	CHEM 331 with	5
LD Major	CHEM 220	Quantitative Analysis	CHEM 112	4
Elective				3
		Total:		15
Fifth Semester (FALL)				
B1/B3	PHYS 125	Principles of Physics I	Satisfactory	4
UD-B/Overlay		UD Science	Completion of	3
UD Major	CHEM 340	Survey of Biochemistry	CHEM 230 or	3
UWR				3
Elective				3
		Total:		16
Sixth Semester (SPRING)				
UD Major	CHEM 320	Bioanalytical and Forensic Laboratory	CHEM 230 or	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
		Total:		15
Seventh Semester (FALL)				
Code 2		US Code		3
D2		Social Science		3
UD Major		Chemistry elective		3
UD Major	CHEM 350	Biophysical Chemistry	CHEM 112,	3
elective				3
		Total:		15
Eighth Semester (SPRING)				
UD Major	CHEM 470	Chemical Literature	CHEM 332 with	1
UD Major		Chemistry elective		3
UD-D/Overlay		UD Social Science	Completion of	3
UD-C/Overlay		UD Art or Humanities	Completion of	3
Elective				3
		Total:		13
Total Units:				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.

Revised: 03/24/23

CSUEB General Breadth and Graduation Requirement Checklist	
Area A (9 units): Communication in the English Language & Critical Thinking (Must earn passing grade of C-/CR or better)	
<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
Area B (9 units): Scientific Inquiry & Quantitative Reasoning	
<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.)
Area C (9 units): Arts & Humanities - Minimum of two different disciplines as designated by course prefix (e.g., ART, THEA, MUS)	
<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)
Area D (6 units): Social Sciences - Minimum of two different disciplines as designated by course prefix (e.g., ANTH, ECON, POSC)	
<input type="checkbox"/>	D1.
<input type="checkbox"/>	D2.
Area E (3 units): Lifelong Learning and Self-Development	
<input type="checkbox"/>	E.
Area F (3 units): Ethnic Studies	
<input type="checkbox"/>	F.
Second Composition: Requires completion of GE A2 with a C-/CR or better.	
<input type="checkbox"/>	Second Composition
University Writing Requirement	
<input type="checkbox"/>	UWR
U.S. Code (American Institutions Requirement) - Two courses (6 units)	
<input type="checkbox"/>	Code 1.
<input type="checkbox"/>	Code 2.
Upper Division GE Requirements (9 units): Should be taken after	
<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
Overlay Requirements (9 units): Courses may be upper or lower division,	
<input type="checkbox"/>	Diversity (Div)
<input type="checkbox"/>	Social Justice (SJ)
<input type="checkbox"/>	Sustainability (S)
Elective Courses	
Students not choosing the concentration in Chemistry Education coursework	
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	

*Students are required to take a minimum of 40 semester units as upper