Requirement Area	Course	Course Title	Prerequisites	Units
_	I	First Semester (FALL)		
E	BIOL 130	Connecting to Biology		
A1		Oral Communication		
A2		Written Communication		
B2/B3/LD Major	BIOL 140A	Principles of Cell and Molecular Biology		
B4/LD Major	MATH 130	Calculus I	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).	
			Total:	1
		Second Semester (SPRING)		
A3	PHIL 100	Workshop in Critical Thinking		
C1	FIIIL 100	Arts		
LD Major	BIOL 140B	Principles of Organismal Biology	BIOL 140A with grade C- or better.	
Second Composition	ENGL 200	Second Comp	BIOL 140A With grade C* of better.	
second Composition	ENGL 200	Second Comp		
			Total:	1
	·	Third Semester (FALL)	1 ***	
B1/LD Major	CHEM 111	General Chemistry I		
B3/LD Major	CHEM 111L	General Chemistry Lab I		
UD Major	BIOL 310	Genetic Analysis I	BIOL 140B with a grade of C- or better.	1
LD Major	PHYS 125	Principles of Physics I	5.52 2 705 With a grade of C of better.	+
C2	. 1113 123	Humanities		
CZ		Tiumanides		-
			Total:	1
		Fourth Semester (SPRING)		
LD	CHEM 112	General Chemistry II	CHEM 111 with grade C- or better.	
LD Major	PHYS 126	Principles of Physics II	PHYS 125	
LD IVIAJOI	11113120	Trinciples of triysies ii	11113 123	
UD Major	BIOL 410	Genetic Analysis II	BIOL 310	
D1/CODE 1		Social Science/US Code		
			Total:	1
	<u>'</u>			
		Fifth Semester (FALL)		
E		Lifelong Learning and Self-Development		
F		Ethnic Studies		
UD Major	CHEM 331	Organic Chemistry I	CHEM 112 with grade C- or better.	
UD Major	BIOL 424	Bioinformatics	BIOL 310.	
UD Major	BIOL 320	Principles of Evolutionary Biology	BIOL 310.	
			Total:	1
		Sixth Semester (SPRING)		
D2/Code 2		Social Science/US Code		
				1
	1	<u></u>		1
UD Major	CHEM 332	Organic Chemistry II	CHEM 331 with grade C- or better.	-
UD Major	BIOL 428	Genomics	BIOL 424.	1
UD Major/Elective 1				1
			Total:	1
	_	Seventh Semester (FALL)		
Add'l C1 or C2*		Arts or Humanities		
UWR				
UD Major	CHEM 441	General Biochemistry I	CHEM 332 with grade C- or better.	
UD Major/Elective 2				
			Total:	1
		Eighth Semester (SPRING)		
UD-B/Overlay		UD Science		
UD-C/Overlay		UD Arts or Humanities		
UD-D/Overlay		UD Social Science		
UD Major/Capstone	BIOL 426	Advanced Cell and Molecular Biology	BIOL 310.	1
UD Major	BIOL 427	Molecular and Cell Biology Lab	BIOL 310.	
55 major	5.55 727	molecular and cell biology Lab	5.52 510.	1
			Total:	

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.

Updated: 4/1/2023

CSUE	3 General Breadth and Graduation Requirement Checklist
	units): Communication in the English Language & Critical Thinking
	(Must earn passing grade of C-/CR or better)
	M 100 or 104, MLL 111
	. 101, 102, or 104
☐ A3. PHIL	
	ea B (9 units) : Scientific Inquiry & Quantitative Reasoning
☐ B1. Phys	ical Science
☐ B2. Life S	cience
	ratory Activity
	ntitative Reasoning (Must earn passing grade of C-/CR or better.)
	nits): Arts & Humanities - Minimum of two different disciplines as
	designated by course prefix (e.g., ART, THEA, MUS)
C1. Arts	
C2. Hum	
☐ *Additio	nal 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)
□ D1.	
□ D2.	
	rea E (3 units) : Lifelong Learning and Self-Development
□ E.	
	Area F (3 units): Ethnic Studies
☐ F.	omposition: Requires completion of GE A2 with a C-/CR or better.
Second Co	Must be completed before attaining junior standing.
□ Socond (Composition
_ Second C	University Writing Requirement
□ UWR	Oniversity writing requirement
	de (American Institutions Requirement) - Two courses (6 units)
U.S. Co	de (American Institutions Requirement) - Two courses (6 units) three U.S. Code Requirements of US-1 (U.S. History), US-2 (U.S.
U.S. Co covering	de (American Institutions Requirement) - Two courses (6 units) three U.S. Code Requirements of US-1 (U.S. History), US-2 (U.S. stitution), and US-3 (California State & Local Government).
U.S. Co covering	three U.S. Code Requirements of US-1 (U.S. History), US-2 (U.S.
U.S. Co covering Cool Code 1.	three U.S. Code Requirements of US-1 (U.S. History), US-2 (U.S. histitution), and US-3 (California State & Local Government).
U.S. Co covering Cool Code 1.	three U.S. Code Requirements of US-1 (U.S. History), US-2 (U.S. histitution), and US-3 (California State & Local Government). ion GE Requirements (9 units): Should be taken after completion of
U.S. Co covering Coi Code 1. Code 2. Upper Divis	three U.S. Code Requirements of US-1 (U.S. History), US-2 (U.S. nstitution), and US-3 (California State & Local Government). ion GE Requirements (9 units): Should be taken after completion of A1, A2, A3, and B4 with a C-(CR)
U.S. Co covering Coi Code 1. Code 2. Upper Divis	three U.S. Code Requirements of US-1 (U.S. History), US-2 (U.S. nstitution), and US-3 (California State & Local Government). ion GE Requirements (9 units): Should be taken after completion of A1, A2, A3, and B4 with a C- (CR) oper-division Science Inquiry and Quantitative Reasoning
U.S. Co covering Coi Code 1. Code 2. Upper Divis UD-B. Up	three U.S. Code Requirements of US-1 (U.S. History), US-2 (U.S. nstitution), and US-3 (California State & Local Government). ion GE Requirements (9 units): Should be taken after completion of A1, A2, A3, and B4 with a C- (CR) oper-division Science Inquiry and Quantitative Reasoning per-division Arts OR Humanities
U.S. Co covering Coi Code 1. Code 2. Upper Divis UD-B. Up UD-C.Up	three U.S. Code Requirements of US-1 (U.S. History), US-2 (U.S. nstitution), and US-3 (California State & Local Government). ion GE Requirements (9 units): Should be taken after completion of A1, A2, A3, and B4 with a C- (CR) pper-division Science Inquiry and Quantitative Reasoning per-division Arts OR Humanities pper-division Arts OR Humanities
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U.S. Co covering Coi Code 1. Code 2. Upper Divis UD-B. Up UD-C.Up UD-D. Up Overlay Re	three U.S. Code Requirements of US-1 (U.S. History), US-2 (U.S. nstitution), and US-3 (California State & Local Government). ion GE Requirements (9 units): Should be taken after completion of A1, A2, A3, and B4 with a C- (CR) oper-division Science Inquiry and Quantitative Reasoning per-division Arts OR Humanities oper-division Social Sciences quirements (9 units): Courses may be upper or lower division, and GE or major
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U.S. Co covering Coin Code 1. Code 2. Upper Divis UD-B. Up UD-C.Up UD-D. Up Social Ju Social Ju Sustaina Choose a m courses. No Study may l these cours BIOL 330 - C BIOL 351- B BIOL 415 - F	three U.S. Code Requirements of US-1 (U.S. History), US-2 (U.S. nstitution), and US-3 (California State & Local Government). Ion GE Requirements (9 units): Should be taken after completion of A1, A2, A3, and B4 with a C- (CR) pper-division Science Inquiry and Quantitative Reasoning per-division Arts OR Humanities pper-division Social Sciences quirements (9 units): Courses may be upper or lower division, and GE or major (Div) Stitice (SI) biblity (S) Elective Courses Inimum of 7 units of electives from the following list of others: BIOL 398 Co-operative Education and/or BIOL 490 Independent be used for a maximum total of 3 units elective credit. Enrollment is es requires approval by a faculty member and the Department Chaiseneral Microbiology Units: 5 Internship Units: 1-4
U.S. Co covering Coi Code 1. Code 2. Upper Divisi UD-B. Uj UD-C. U	three U.S. Code Requirements of US-1 (U.S. History), US-2 (U.S. histitution), and US-3 (California State & Local Government). Ion GE Requirements (9 units): Should be taken after completion of A1, A2, A3, and 84 with a C- (CR) Oper-division Science Inquiry and Quantitative Reasoning per-division Arts OR Humanities per-division Arts OR Humanities GE or major (Div) Stice (SI) Dility (S) Elective Courses Inimum of 7 units of electives from the following list of tet: BIOL 398 Co-operative Education and/or BIOL 490 Independent be used for a maximum total of 3 units elective credit. Enrollment in es requires approval by a faculty member and the Department Chainerenship Units: 1-4 CR, Sequencing and Fragment Analysis Units: 3
U.S. Co covering Coi Code 1. Code 2. Upper Divis UD-B. Uj UD-C. Uj UD-D. Uj UD-C. Uj Social Ju Sustaina Choose a m courses. NX Study may lt these cours BIOL 330 - C BIOL 398 - I BIOL 415 - F BIOL 425 - 1	ion GE Requirements of US-1 (U.S. History), US-2 (U.S. histitution), and US-3 (California State & Local Government). Ion GE Requirements (9 units): Should be taken after completion of A1, A2, A3, and B4 with a C- (CR) Open-division Science Inquiry and Quantitative Reasoning per-division Arts OR Humanities open-division Social Sciences quirements (9 units): Courses may be upper or lower division, and GE or major (Div) Stice (SI) Dility (S) Elective Courses Inimum of 7 units of electives from the following list of ote: BIOL 398 Co-operative Education and/or BIOL 490 Independent in the served for a maximum total of 3 units elective credit. Enrollment in served in the serv
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*Students are required to take a minimum of 40 semester units as upper division (includes 9 units upper division GE)