Degree: Environmental Science B.S. 25-26						CSUEB General Breadth and Graduation Requirement Checklist
Requirement Area	**Course**	**Course Title**	**Prerequisites**	**Units**		**Area 1 (9 units): English Communication**
First Semester (Fall)						☐ 1A - Lower Division English Composition
Major Recommended	EESC 133	Introduction to the Earth, Environmental and Sustainability Sciences for Majors		1		☐ 1B - Lower Division Critical Thinking and Composition
1A		English Composition		3		☐ 1C - Lower Division Oral Communication
Major Required/5A /SUS	EESC 280	Humans and the Environment in California		3		**Area 2 (3 units) : Mathematical Concepts and Quantitative Reasoning**
Area 4/Code1 or Code2		Social and Behavioral Sciences		3		☐ Area 2 - Mathematical Concepts and Quantitative Reasoning
Major Required	PHYS 125	Principles of Physics I	Satisfactory score of 78 or higher on Math Proficiency Assessment or MATH 120.	4		**Area 3 (6 units): Arts & Humanities - Minimum of two different disciplines as designated by course prefix (e.g., ART, THEA, MUS)**
Major Required	EESC 297	Introductory Field Experience		1		☐ 3A - Arts and Humanities (Arts)
			Total	15		☐ 3B - Arts and Humanities (Humanities)
Second Semester (Spring)						**Area 4 (6 units) : Social and Behavioral Sciences - Minimum of two different disciplines as designated by course prefix (e.g., ANTH, ECON, POSC)**
1C		Oral Communication		3		☐ Area 4 - Lower Division Social and Behavioral Sciences
Area 4/Code1 or Code2		Social and Behavioral Sciences		3		☐ Area 4 - Lower Division Social and Behavioral Sciences
Major Required/Area 2	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).	3		**Area 5 (7 units): Physical and Biological Sciences**
Major Required	PHYS 126	Principles of Physics II		4		☐ 5A - Lower Division Physical and Biological Sciences (Physical)
Free Elective				2		☐ 5B - Lower Division Physical and Biological Sciences (Biological)
			Total	15		☐ 5C - Lower Division Physical and Biological Sciences (Laboratory) -- May be embedded in 5A or 5B course, as long as 7 units met for lower-division Subject Area 5.
Third Semester (Fall)						**Area 6 (3 units): Ethnic Studies**
1B		Critical Thinking and Composition		3		☐ Area 6 - Ethnic Studies
Major Required/5B	EESC 240	Environmental Biology		3		**Second Composition : Second Composition (Required as part of 1B for 2025-26 or later catalog)**
Major Required/5C	EESC 241	Environmental Biology Laboratory		1		☐ Second Composition
Major Required	EESC 210	Physical and Environmental Geology and Geography		4		**University Writing Requirement (3-4 units)**
Major Required	CHEM 111	General Chemistry I		3		☐ UWR
Major Required	CHEM 111L	General Chemistry I Laboratory		2		**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 & Local Government).**
			Total	16		☐ Code 1
Fourth Semester (Spring)						☐ Code 2
Area 6		Ethnic Studies		3		**Upper Division GE Requirements (9 units): Should be taken after completion of 1A, 1B, 1C, and Area 2 with a C- (CR)**
3B		Humanities		3		☐UD- Area 3 - Upper Division Arts or Humanities
Major Required	CHEM 112	General Chemistry II	CHEM 111 & CHEM 111L with a C- or higher	3		☐ UD- Area 4 - Upper Division Social and Behavioral Sciences
Major Required	CHEM 112L	General Chemistry II Laboatory	CHEM 111 & CHEM 111L with a C- or higher	2		☐ UD- Area 5 - Upper Division Science or Mathematical Concepts/Quantitative Reasoning
3A		Arts		3		**Overlay Requirements (9 units): Courses may be upper or lower division, and GE or major**
			Total	14		☐ Diversity (Div)
Fifth Semester (Fall)						☐ Social Justice (SJ)
UD-Area 5 or Free Elective				3		☐ Sustainability (S)
UWR				3		
Major Required	EESC 360	Introduction to GIS in Earth, Environmental and Sustainability Sciences		3		
Major Required	EESC 397	Advanced Field Experience	EESC 297	2		
Major Required	STAT 303	Statistical Methods in Biology		3		
			Total	14		
Sixth Semester (Spring)						
UD-Area 4/Overlay				3		
UD-Area 3/Overlay				3		
Major Required	BIOL 350	Ecology		4		
Free Elective				3		
Free Elective				3		
			Total	16		
Seventh Semester (Fall)						
Major Required	EESC 420	Global Climate Change		3		
Major Required Elective	ENSC 350 or GEOL 432	Environmental Hydrology or Hydrogeology	ENSC 350 requires either CHEM 100 or CHEM 111, and either MATH 120, MATH 125, or MATH 130, and Highy recommended either PHYS 115, PHYS 125, or PHYS 135 and GEOL 432 requires Either CHEM 100 or CHEM 111, and either MATH 120, MATH 125, or MATH 130, and either PHYS 115, PHYS 125, or PHYS 135.	4		
Major Required Elective	GEOG 375 or GEOG 445 or GEOG 447 or EESC 455 or EESC 460 or GEOG 465	Fire Ecology and Management or Water and Watershed Resources Energy, Climate and Society or Sustainable Food Systems or Advanced GIS in Earth, Environmental and Sustainability Sciences or Sustainable Communities and Development	EESC 460 requires EESC 360	3		
Free Elective				3		
Free Elective				3		
			Total	16		
Eighth Semester (Spring)						
Major Required	EESC 499	Capstone Seminar in Earth, Environmental and Sustainability Sciences		3		
Major Required	EESC 410	Environmental Impact Analysis		3		
Major Required Elective	EESC 451 OR EESC 320	Hydroinformatics OR Quantitative Methods in Earth, Environmental and Sustainability Sciences		4		
Major Required Elective	GEOL 343 or EESC 434	Atmospheric Science or Biogeochemistry	GEOL 343 requires PHYS 125, PHYS 126, and CHEM 110 or CHEM 111. and EESC 434 requires CHEM 112 and CHEM 112L	3		
Free Elective				1		
			Total	14		
			Degree Total	**120**		