

Degree: Physics, B.S. 25-26				
Requirement Area	Course	Course Title	Prerequisites	Units
<b>First Semester (FALL)</b>				
Recommended	SCI 130	Connecting to STEM Majors		2
1C		Oral Communication		3
LD Major/5A&5C	PHYS 135	Physics for Scientists and Engineers I		4
LD Major/Area 2	MATH 130	Calculus I		4
3A		Art		3
		<b>Total:</b>		16
<b>Second Semester (SPRING)</b>				
1A		Written Communication		3
LD Major	PHYS 136	Physics for Scientists and Engineers II	MATH 130 and PHYS 135	4
Area 2/LD Major	MATH 131	Calculus II	MATH 130 with grade C- or better	3
3B		Humanities		3
		<b>Total:</b>		13
<b>Third Semester (FALL)</b>				
1B	PHIL 100	Workshop in Critical Thinking		3
LD Major	PHYS 137	Physics for Scientists and Engineers III	MATH 130 and PHYS 136	4
LD Major	MATH 230	Calculus III	MATH 131 with grade C- or better.	3
LD Major	CHEM 110	General Chemistry		3
Area 4/Code 1		Social Sciences/US Code		3
		<b>Total:</b>		16
<b>Fourth Semester (SPRING)</b>				
LD Major/Second Composition	PHYS 230	Physical Reasoning	MATH 230, and PHYS 137 or PHYS 126	3
LD Major	MATH 285	Introduction to Differential Equations		3
5B/Sustainability Overlay	ENSC 240	Environmental Biology		3
Area 4/Code 2		Social Sciences/US Code		3
Free Elective				3
		<b>Total:</b>		15
<b>Fifth Semester (FALL)</b>				
Area 6		Ethnic Studies		3
UD Major	PHYS 330	Analytical Mechanics	MATH 230, and PHYS 137 or PHYS 126	3
UD Major	PHYS 350	Quantum Mechanics I	MATH 230, and PHYS 137 or PHYS 126	3
UD Major	PHYS 380	Advanced Laboratory I: Electronics	MATH 230, and PHYS 137 or PHYS 126	3
LD Major	MATH 215	Introduction to Linear Algebra	MATH 130	3
		<b>Total:</b>		15
<b>Sixth Semester (SPRING)</b>				
Free Elective				3
UWR				3
UD Major	PHYS	Physics Elective		3
UD Major	PHYS 351	Quantum Mechanics II	PHYS 350	3
UD Major	PHYS 381	Advanced Laboratory II: Experimental Methods	PHYS 380	3
		<b>Total:</b>		15
<b>Seventh Semester (FALL)</b>				
UD-Area 3/Overlay			Completion of GE Areas 1A, 1B, 1C and GE-2 with grade C- (CR) or better	3
UD Major	PHYS 340	Statistical Mech. & Thermo.	MATH 230, and PHYS 137 or PHYS 126	3
UD Major	PHYS 450	Electromagnetism I	MATH 230, and PHYS 137 or PHYS 126	3
UD Major	PHYS 480	Advanced Laboratory III: Modeling, Design, and Analysis	PHYS 381	3
UD-Area 5			Completion of GE Areas 1A, 1B, 1C and GE-2 with grade C- (CR) or better	3
		<b>Total:</b>		15
<b>Eighth Semester (SPRING)</b>				
UD-Area 4/Overlay			Completion of GE Areas 1A, 1B, 1C and GE-2 with grade C- (CR) or better	3
UD Major	PHYS 451	Electromagnetism II	PHYS 450	3
UD Major	PHYS 481	Advanced Laboratory IV: Projects	PHYS 480	3
UD Major	PHYS	Physics Elective		3
Elective				3
		<b>Total:</b>		15
<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 1 (9 units): English Communication</b>	
<input type="checkbox"/> 1A - Lower Division English Composition	
<input type="checkbox"/> 1B - Lower Division Critical Thinking and Composition	
<input type="checkbox"/> 1C - Lower Division Oral Communication	
<b>Area 2 (3 units) : Mathematical Concepts and Quantitative Reasoning</b>	
<input type="checkbox"/> Area 2 - Mathematical Concepts and Quantitative Reasoning	
<b>Area 3 (6 units): Arts &amp; Humanities - Minimum of two different disciplines as designated by course prefix (e.g., ART, THEA, MUS)</b>	
<input type="checkbox"/> 3A - Arts and Humanities (Arts)	
<input type="checkbox"/> 3B - Arts and Humanities (Humanities)	
<b>Area 4 (6 units) : Social and Behavioral Sciences - Minimum of two different disciplines as designated by course prefix (e.g., ANTH, ECON, POSC)</b>	
<input type="checkbox"/> Area 4 - Lower Division Social and Behavioral Sciences	
<input type="checkbox"/> Area 4 - Lower Division Social and Behavioral Sciences	
<b>Area 5 (7 units): Physical and Biological Sciences</b>	
<input type="checkbox"/> 5A - Lower Division Physical and Biological Sciences (Physical)	
<input type="checkbox"/> 5B - Lower Division Physical and Biological Sciences (Biological)	
<input type="checkbox"/> 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.	
<b>Area 6 (3 units): Ethnic Studies</b>	
<input type="checkbox"/> Area 6 - Ethnic Studies	
<b>Second Composition : Second Composition (Required as part of 1B for 2025-26 or later catalog)</b>	
<input type="checkbox"/> Second Composition	
<b>University Writing Requirement (3-4 units)</b>	
<input type="checkbox"/> UWR	
<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 1A, 1B, 1C, and Area 2 with a C- (CR)</b>	
<input type="checkbox"/> UD- Area 3 - Upper Division Arts or Humanities	
<input type="checkbox"/> UD- Area 4 - Upper Division Social and Behavioral Sciences	
<input type="checkbox"/> UD- Area 5 - Upper Division Science or Mathematical Concepts/Quantitative Reasoning	
<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>	
Choose a minimum of 6 units from the following:	
PHYS 460 - Astrophysics Units: 3	
PHYS 461 - Atomic Physics Units: 3	
PHYS 462 - Solid State Physics Units: 3	
PHYS 463 - Particle Physics Units: 3	

\*Students are required to take a minimum of 40 semester units as upper division (includes 9 units upper division GE)