Degree: Physics, B.S. 24-25				
Requirement Area	**Course**	**Course Title**	**Prerequisites**	**Units**
First Semester (FALL)				
E	SCI 130	Connecting to STEM Majors		2
A1		Oral Communication		3
LD Major/B1&B3	PHYS 135	Physics for Scientists and Engineers I		4
LD Major/B4	MATH 130	Calculus I		4
C1		Art		3
			Total:	16
Second Semester (SPRING)				
A2		Written Communication		3
LD Major	PHYS 136	Physics for Scientists and Engineers II	MATH 130 and PHYS 135	4
B4/LD Major	MATH 131	Calculus II	MATH 130 with grade C- or better	3
C2		Humanities		3
			Total:	13
Third Semester (FALL)				
E		Lifelong Learning and Self-Development		1
A3	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
Elective				2
			Total:	16
Fourth Semester (SPRING)				
LD Major/Second Compostion	PHYS 230	Physical Reasoning	MATH 230, and PHYS 137 or PHYS 126	3
LD Major	MATH 285	Introduction to Differential Equations		3
B2/Sustainability Overlay	ENSC 240	Environmental Biology		3
D1/Code 1		Social Sciences/US Code		3
Add'l C1 or C2*				3
			Total:	15
Fifth Semester (FALL)				
F		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
			Total:	15
Sixth Semester (SPRING)				
D2/Code 2		Social Sciences/US Code		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
			Total:	15
Seventh Semester (FALL)				
UD-C/Overlay				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-B				3
			Total:	15
Eighth Semester (SPRING)				
UD-D/Overlay				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
			Total:	15
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.

Updated:4/1/2024

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)
☐ A1. COMM 100 or 104, MLL 111
☐ A2. ENGL 101, 102, or 104
☐ A3. PHIL 100
Area B (9 units) : Scientific Inquiry & Quantitative Reasoning
☐ B1. Physical Science
☐ B2. Life Science
☐ B3. Laboratory Activity
☐ 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)
☐ C1. Arts
☐ C2. Humanities
☐ *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)
☐ D1.
☐ D2.
Area E (3 units) : Lifelong Learning and Self-Development
☐ E.
Area F (3 units): Ethnic Studies
☐ F.
Second Composition : Requires completion of GE A2 with a C-/CR or better. Must be completed before attaining junior standing.
☐ Second Composition
University Writing Requirement
☐ UWR
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).
☐ Code 1.
☐ Code 2.
Upper Division GE Requirements (9 units): Should be taken after completion of A1, A2, A3, and B4 with a C- (CR)
☐ UD-B. Upper-division Science Inquiry and Quantitative Reasoning
☐ UD-C.Upper-division Arts OR Humanities
☐ UD-D. Upper-division Social Sciences
Overlay Requirements (9 units): Courses may be upper or lower division, and GE or major
☐ Diversity (Div)
☐ Social Justice (SJ)
☐ Sustainability (S)
Elective Courses
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)**