

| Degree: Physics, B.S. 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/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 Composition | 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 |

| 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. Must be completed before attaining junior standing. | |
| <input type="checkbox"/> Second Composition | |
| University Writing Requirement | |
| <input type="checkbox"/> 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). | |
| <input type="checkbox"/> Code 1. | |
| <input type="checkbox"/> Code 2. | |
| Upper Division GE Requirements (9 units): Should be taken after completion of A1, A2, A3, and B4 with a C- (CR) | |
| <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, and GE or major | |
| <input type="checkbox"/> Diversity (Div) | |
| <input type="checkbox"/> Social Justice (SJ) | |
| <input type="checkbox"/> 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)**

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.