

PHYSICS ADT TO CSU EAST BAY PHYSICS BA CHECKLIST/ROADMAP

ADT PHYSICS B.S. – 60 Sem. Units	Sem. Units	Community College Courses
CSUGE or IGETC	39	<i>CSU general education certification requires completion of all requirements in Areas A through E, approximately 39 units</i>
AREA D REQUIREMENT: US History, Constitution & American Ideals Code Requirement	3-9	US-1: US-2: US-3:
Diversity/Social Justice/Sustainability <i>Can be fulfilled in area C or D</i>	3-9	DIV: SJ: SUS:
Second Composition (Comp II) Can be fulfilled with A3 Any Composition course with ENGL 100 as a prerequisite	3	
<i>The following areas are for the CID TMC/Courses and matching Community College Courses</i>		
Major Core (C-ID)	24	Community College Courses
PHYS 205 - Calculus-Based Physics for Scientists and Engineers: A (4)	Counted in GE	
PHYS 210 - Calculus-Based Physics for Scientists and Engineers: B (4)	4	
PHYS 215 - Calculus-Based Physics for Scientists and Engineers: C (4)	4	
MATH 210 - Single Variable Calculus I – Early Transcendentals (4)	Counted in GE	
MATH 220 - Single Variable Calculus II – Early Transcendentals (4)	4	
MATH 230 - Multivariable Calculus (4)	4	
Total Units ADT *PHYSICS*	60	

PLEASE NOTE: This page assumes Semester Units.

PHYSICS ADT TO CSU EAST BAY PHYSICS BA CHECKLIST/ROADMAP

CSUEB: B.A. PHYSICS <i>Complete Degree in 60 Semester Units</i>	Semester UNITS	NOTES
GRADUATION REQUIREMENTS <i>These should be fulfilled at the Community College, however if not taken at the Community College, they must be completed at CSU East Bay</i>		
US History, Constitution & American Ideals	0-9	
1) First Category US-1	0-3	
2) Second Category US-2	0-3	
3) Third Category US-3	0-3	
These courses must be taken at CSU East Bay		
Upper Division GE <i>See catalog</i>	9	CSUEB COURSES
Please note: A minimum of three courses in the Upper Division General Education pattern must have a topic/learning outcome oriented toward one of the following topic areas (overlays): Diversity, Social Justice, or Sustainability.		
Area B6 Upper Division Science course	3	Course: OVERLAY:
Area C4 Upper Division Humanities course	3	Course: OVERLAY:
Area D4 Upper Division Social Sciences course	3	Course: OVERLAY:
Lower Division Core	6	
MATH 210 - Linear Algebra with Differential Equations Units: 3	3	
PHYS 230 – Physical Reasoning	3	
Upper Division Core	18	
PHYS 330 - Analytic Mechanics Units: 3	3	
PHYS 340 - Statistical Mechanics and Thermodynamics Units: 3	3	
PHYS 350 - Quantum Mechanics I Units: 3	3	
PHYS 380 - Advanced Laboratory I: Electronics Units: 3	3	
PHYS 381 - Advanced Laboratory II: Experimental Methods Units: 3	3	
PHYS 450 - Electromagnetism I Units: 3	3	
Electives Choose a minimum of 6 units from the following:	6+	
CHEM 100 - Introduction to College Chemistry 3		G.E./G.R. Area: B1, B3
CHEM 110 - General Chemistry for Engineering Units: 3		G.E./G.R. Area: B1, B3
CHEM 111 - General Chemistry I Units: 5		G.E./G.R. Area: B1, B3
CHEM 112 - General Chemistry II Units: 5		
CS 100 - Programming for Everyone Units: 3		
CS 101 - Computer Science I Units: 4		
PHYS 104 - Musical Acoustics Units: 4		G.E./G.R. Area: B1, B3
PHYS 105 - How Things Work Units: 3		G.E./G.R. Area: B1
PHYS 106 - Physics for Future Leaders Units: 3		G.E./G.R. Area: B1; Sustainability
PHYS 107 - Science of Energy Units: 3		G.E./G.R. Area: B1; Sustainability

PHYSICS ADT TO CSU EAST BAY PHYSICS BA CHECKLIST/ROADMAP

PHYS 108 - Astronomy of Ancient Cultures Units: 3		G.E./G.R. Area: B1; Diversity
PHYS 115 - Elementary Physics Units: 3		G.E./G.R. Area: B1, B3
PHYS 138 - Descriptive Astronomy Units: 3		G.E./G.R. Area: B1
PHYS 139 - Astronomy Laboratory Units: 1		G.E./G.R. Area: B3
PHYS 303 - Biophysics Units: 3		G.E./G.R. Area: B6
PHYS 337 - Extrasolar Planets Units: 3		G.E./G.R. Area: B6
PHYS 338 - The Cosmos Units: 3		G.E./G.R. Area: B6
PHYS 339 - Stars and Galaxies Units: 3		G.E./G.R. Area: B6
PHYS 351 - Quantum Mechanics II Units: 3		
PHYS 360 - Selected Topics Units: 1		
PHYS 451 - Electromagnetism II Units: 3		
PHYS 460 - Astrophysics Units: 3		
PHYS 461 - Atomic Physics Units: 3		
PHYS 462 - Solid State Physics Units: 3		
PHYS 463 - Particle Physics Units: 3		
PHYS 480 - Advanced Laboratory III: Modeling, Design, and Analysis Units: 3		
PHYS 481 - Advanced Laboratory IV: Projects Units: 3		
PHYS 497 - Issues in Physics Units: 3		
SCI 308 - Hands-On Science Teaching Units: 1		
ADDITIONAL COURSE to reach 60 Units	21	<i>These courses may be additional Major Courses or prerequisites not taken at the Community College</i>
<i>If needed</i>		
Total Semester Units at CSUEB	60	60

PHYSICS ADT TO CSU EAST BAY PHYSICS BA CHECKLIST/ROADMAP

FIRST SEMESTER JUNIOR YEAR			
Register to take the University Writing Skills Requirement			
UDGE B6	COURSE	OVERLAY	3
LD MAJOR	MATH 210	LINEAR ALGEBRA WITH DIFFERENTIAL EQUATIONS	3
UD MAJOR	PHYS 350	QUANTUM MECHANICS I	3
ELECTIVE			3
ELECTIVE			3
			TOTAL: 15
SECOND SEMESTER JUNIOR YEAR			
TAKE THE UNIVERSITY WRITING SKILLS TEST			
UDGE D4	COURSE	OVERLAY	3
LD MAJOR	PHYS 230	Physical Reasoning	3
UD MAJOR	PHYS 330	ANALYTIC MECHANICS	3
ELECTIVE			3
ELECTIVE			3
			TOTAL: 15
THIRD SEMESTER SENIOR YEAR			
Verify that you have completed the University Writing Skills Requirement. Check your MyCSUEB "Degree Audit Report" (DAR) and email any discrepancies to The ADT ADVISER.			
UDGE C4	COURSE	OVERLAY	3
UD MAJOR	PHYS 450	ELECTROMAGNETISM I	3
UD MAJOR	PHYS 380	ADVANCED LABORATORY I: ELECTRONICS	3
UD MAJOR	PHYS	PHYS ELECTIVE	3
ELECTIVE			3
			TOTAL: 15
FOURTH SEMESTER SENIOR YEAR			
See the ADT ADVISER and apply for graduation through MyCSUEB by the posted deadline, available at Important Dates			
UD MAJOR	PHYS 381	ADVANCED LABORATORY II: EXPERIMENTAL METHODS	3
UD MAJOR	PHYS 340	STATISTICAL MECHANICS & THERMODYNAMICS	3
UD MAJOR	PHYS	PHYS ELECTIVE	3
ELECTIVE			3
ELECTIVE			3
			TOTAL: 15
			GRAND TOTAL: 60