

Montclair State University
 Department of Physics and Astronomy
 Physics Minor

I. Minor Requirements	21-22 sh	II. Collateral Courses	(8-12 sh)
A. Physics Core		(These credit hours are not counted in the minor total.)	
Complete the following 3 courses:		MATH 122 and 221 or AMAT 120 and 220 are required prerequisites. MATH 222 is optional, but is a prerequisite for some physics courses.	
PHYS 191 University Physics I	4		
PHYS 192 University Physics II	4		
PHYS 230 Intermediate Physics Laboratory	4		
Complete one of these two courses:		MATH 122 Calculus I or AMAT 120 Applied Calc. A	4
PHYS 210 Intermediate Mechanics	3	MATH 221 Calculus II or AMAT 220 Applied Calc. B	4
PHYS 220 Oscillations, Waves, & Optics	3	MATH 222 Calculus III	4
Complete one of these three courses:			
PHYS 340 Electricity and Magnetism	3		
PHYS 320 Statistical and Thermal Physics	3		
PHYS 360 Modern Physics	3		
B. Physics Electives (3-4 sh)			
Choose one course below that was not taken above:			
PHYS 180 Astronomy for Everyone	4		
PHYS 210 Intermediate Mechanics	3		
PHYS 220 Oscillations, Waves, & Optics	3		
PHYS 245 Fundamentals of Electronics	4		
PHYS 280 Astronomy for Physicists	4		
PHYS 310 Advanced Mechanics	3		
PHYS 320 Statistical and Thermal Physics	3		
PHYS 330 Advanced Physics Laboratory	4		
PHYS 340 Electricity and Magnetism	3		
PHYS 341 Electronics and Digital Circuits	4		
PHYS 350 Modern Optics	4		
PHYS 360 Modern Physics	3		
PHYS 368 Fluid Mechanics	3		
PHYS 377 Mathematical Physics	3		
PHYS 380 Observational Astronomy	4		
PHYS 399 Special Topics in Physics	1-4		
PHYS 325 Computational Physics	3		
PHYS 451 Radiation and Medical Physics	3		
PHYS 461 Special & General Relativity	3		
PHYS 462 Nuclear Physics	4		
PHYS 464 Quantum Mechanics	3		
PHYS 470 Solid State Physics	3		
PHYS 480 Astrophysics	3		
PHYS 495 Research/Indep. Study in Physics	1-4		