

Le Moyne College

Physics Major, typical program for B.S. with Concentration in Pre-Engineering (Mechanical and Aerospace)***

(as of 2016-17 Academic Year)

Revised 10-24-18

	CREDIT	FIRST-YEAR		SOPHOMORE		JUNIOR		SENIOR		
		F	S	F	S	F	S	F	S	
MAJOR REQUIREMENTS										
PHYSICS										
PHY 105*	General Physics I (calc.)	3								
PHY 103*	General Physics Lab I	1								
PHY 106*	General Physics II (calc.)	3								
PHY 104*	General Physics Lab II	1								
PHY 201	Fields and Waves	3			3					
PHY 203	Foundations of Modern Physics	3			3					
PHY 231	Foundations Lab	1			1					
PHY 303	Classical Electr/magn Theory I	3						3		
PHY 321*	Analytical Mechanics I	3			3					
PHY 331	Atomic & Nuclear Physics Lab	1				1				
PHY 311*	Electronics I	4			4					
PHY 333*	Computational Physics	3					3			
PHY 307	Quantum Mechanics I	3				3				
PHY 308/XXX	Quantum Mechanics II or 3XX/4XX	3					3			
PHY 405*	Statistical Physics	3							3	
PHY 431	Advanced Physics Lab	1					1			
PHY 476	Physics Capstone	3						3		
MAJOR SUPPORT										
MATHEMATICS										
MTH 145*	Calculus I	4		4						
MTH 146*	Calculus II	4			4					
MTH 245*	Calculus III	4				4				
MTH 304*	Differential Equations Sci-Eng	4				4				
MTH 311*	Intro to Probability	3					3			
OTHER SCIENCES										
CHM 151*	Chemical Principles I	4					4			
CORE REQUIREMENTS										
ENGLISH/SOC SCI/HIST/RELIG/PHILOS										
COR 100	First Year Seminar	3		3						
WRT 101	Critical Writing	3		3						
HST 110	World Civilization I	3		3						
HST 111	World Civilization II	3			3					
PHL 110	Introduction to Philosophy	3			3					
PHL 210	Moral Philosophy	3					3			
EAC 1	Encountering Another Culture/	3			3					
EAC 2	Foreign Language	3				3				
ENG 210	Major Authors	3		3						
ENG 310	Literature & Culture	3				3				
IDS	Interdiscip. NatSci/SocSci/Math	3						3		
THE	Theology	3						3		
REL	Religious Studies	3					3			
(SOC)	Social Science	3							3	
COR 400	Senior Seminar: Transformations	3							3	
VPA	Visual & Performing Arts	1					1			
ADDITIONAL MASTERS PREREQUISITES*										
ENGINEERING										
ECS 221**	Statics	3			3					
ECS 325**	Mechanics of Solids	4				4				
ECS 326**	Engineering Materials	3						3		
MAE 341**	Fluid Mechanics	4					4			
ELECTIVES										
PHY 3XX/4XX	Major Elective	3							3	
PHY 3XX/4XX	Major Elective	3							3	
TOTAL CREDITS		131	17	17	17	18	18	14	15	15

* Satisfies pre-requisites for admission to masters program. 3.0 GPA in math/science/eng & overall also req'd 0

** Taken at Syracuse University

*** So long as pre-reqs (*-ed courses) are satisfied, students with B.A. degrees may also enter the M.S. program