

Le Moyne College										
Physics Major, typical program for B.S. with Concentration in Pre-Engineering (Environmental)***										
(as of 2016-17 Academic Year)										
Revised April 2021										
	CREDIT	FIRST-YEAR		SOPHOMORE		JUNIOR		SENIOR		
		F	S	F	S	F	S	F	S	
MAJOR REQUIREMENTS										
PHYSICS										
PHY 105*	General Physics I (calc.)	3	3							
PHY 103*	General Physics Lab I	1	1							
PHY 106*	General Physics II (calc.)	3	3							
PHY 104*	General Physics Lab II	1	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 401*	Mathematical Physics	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					
OTHER SCIENCES										
CHM 151*	Chemical Principles I	4		4						
CHM 152*	Chemical Principles II	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/ Foreign Language	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						
CEE 341**	Environmental Engineering I	3				3				
CEE 352**	Water Resources Engineering	4					4			
MAE 341/CEE 327*	Fluid Mechanics	4				4				
ELECTIVES										
Elective		3						3		
PHY 3XX/4XX	Major Elective	3							3	
TOTAL CREDITS		131	17	17	18	18	17	17	15	16

* Satisfies pre-requisites for admission to masters program. 3.0 GPA in math/science/eng & overall also req'd 4

** 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

PHY 3XX/4XX courses, except PHY 311, 331, 431, & 476, are offered in alternate years, so students graduating in odd-numbered years follow a program with the 3rd and 4th years of PHY courses interchanged.