Cleveland State University College of Arts and Sciences

Bachelor of Science in Physics

First Year									
Fall Semester	Credits	Major	Gen Ed	Spring Semester Credits Major	Gen Ed				
ASC 101 Intro to University Life	1		Intro	ENG 102 College Writing II 3	W/C				
ENG 101 College Writing I	3		W/C	MTH 182 Calculus II 4	M/QL				
MTH 181 Calculus I	4	Х	M/QL	Social Science Elective** 3	SS				
Social Science Elective**	3		SS	PHY 241 University Physics I 5 X	NS				
Social Diversity Elective (AA)	3		DIV-AA						
Semester Total	14			Semester Total 15					

Second Year										
Fall Semester	Credits	Major	Gen Ed	Spring Semester Credits Major G	Gen Ed					
PHY 244 University Physics II	5	Х	NS/WAC	PHY 325 Intro Theoretical Physics 3 X						
MTH 281 Multivariable Calc	4	Х		STEM Elective 300/400 level 3 X						
PHY 320 Computational Physics^	3			Arts and Humanities Elective** 3	A&H					
Arts & Humanities Elective**	3		A&H	Social Diversity Elective (US) 3 D	DIV-US					
				General Elective* (WAC) 3	WAC					
Semester Total	15			Semester Total 15						

Third Year									
Fall Semester	Credits	Major	Gen Ed	Spring Semester	Credits	Major	Gen Ed		
PHY 330 Modern Physics	3	Х		PHY 341 Mechanics and Vibrations II	3	Χ			
PHY 340 Mechanics and Vibrations I	3	Х		PHY 440 Quantum Physics I	3	Χ			
PHY 474 Thermal Physics	3	Х		PHY 475 Statistical Physics	3	Х			
General Elective* (WAC)	3		WAC	General Elective*	3				
General Elective*	3			General Elective*	3				
Semester Total	15			Semester Total	15				

Fourth Year										
Fall Semester	Credits	Major	Gen Ed		Spring Semester	Credits	Major	Gen Ed		
PHY 350 Electricity & Magnetism I	3	Х			PHY 351 Electricity & Magnetism II	3	Х			
PHY 335, 461, or 455^^	3	Х			PHY 335, 461, or 455^^	3	Х			
PHY 450 Optics & Electromagnetic Waves	3	Х			STEM Elective 300/400 level	3	Х			
General Elective*	3				PHY 498 Capstone Senior Project	1	Х	CAP		
General Elective*	3				General Elective*	3				
					General Elective*	3				
Apply for Spring graduation by the middle of this term										
Semester Total	15				Semester Total	16				
Credit Total: 120 (minimum 120 required for degree)										

The plan above is a suggested guide to ensure that all General Education, College, University, and Major requirements are met within 4 years of study. Students may deviate from the suggested placement of Gen Ed courses, although the M/QL and W/C requirements should be completed during the first year of study. This plan assumes college-level readiness in both mathematics and English and that Foreign Language Deficiency requirements have been met.

Gen Ed Key:

INTRO = Introduction to University Life Requirement (one course)

W/C = Writing/Composition Requirement (2 courses; C or better required)

M/QL = Mathematics/Quantitative Literacy Requirement (2 courses)

NS = Natural Science (2 courses, one of which must have a lab)

SS = Social Sciences Requirement (2 courses from different departments**)

A&H = Arts & Humanities Requirement (2 courses from different departments**)

DIV = Social Diversity Requirement (one US Diversity & one African American Exp.)

^CIS

WAC/SPAC = Writing/Speaking Across the Curriculum (3 courses, one in major)

CAP = Capstone Requirement

260, ESC 151, ESC 152, or MTH 311 may be used as substitutes

^Choose two courses from the following: PHY 335 (typicall offered spring of odd years), PHY 461 (typically offered fall of odd years), or PHY 455 (typically offered spring of even years)

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^{*} General Electives ensure that a student accumulates the minimum 120 required credit hours for graduation. Of these 120 credit hours, a minimum of 36 credit hours must be upper division (300 or 400-level courses).

^{**} Of the SS and A&H courses, one must be focused on Africa, Latin America, or the Middle East