Cleveland State University College of Science and Health Professions Bachelor of Science in Physics

New for 2019-20

First Year									
Fall Semester	Credits	Major	Gen Ed	Spring Semester	Credits	Major	Gen Ed		
ASC 101 Introduction to University Life	1		INTRO	PHY 241 University Physics I	5	Х	NS		
ENG 101 English I	3		W/C	MTH 182 Calculus II	4	х	M/QL		
MTH 181 Calculus I	4	х	M/QL	Social Science Elective**	3		SS		
Social Science Elective**	3		SS	ENG 102 English II	3		W/C		
African American Experience Elective	3		DIV						
Semester Total	14			Semester Total	15				

Second Year								
Fall Semester	Credits	Major	Gen Ed	Spring Semester	Credits	Major	Gen Ed	
PHY 244 University Physics II	5	Х	NS;WAC	PHY 325 Intro Theoretical Physics	3	Х		
MTH 281 Multivariable Calculus	4	Х		PHY 330 Intro Modern Physics	3	х		
Arts & Humanities Elective**	3		A&H	Writing Across the Curriculum Elective	3		WAC	
PHY 320 Intro Computational Physics [^]	3	Х		US Diversity Elective	3		DIV	
_				Arts and Humanities Elective**	3		A&H	
Semester Total	15			Semester Total	15			

Third Year									
Fall Semester	Credits	Major	Gen Ed	Spring Semester	Credits	Major	Gen Ed		
STEM Elective [300/400 level]	3	Х		PHY 341 Mechanics and Vibrations II	3	Х			
PHY 340 Mechanics and Vibrations I	3	х		PHY 440 Quantum Physics I	3	Х			
PHY 474 Thermal Physics	4	Х	CAP	PHY 475 Statistical Physics	3	Х			
Writing Across the Curriculum Elective	3		WAC	General Elective*	3				
General Elective*	3			General Elective*	3				
Semester Total	16			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, 360, or 455^^	3	Х			PHY 335, 360, or 455^^	3	Х			
PHY 450 Optics & Electromagnetic Waves	3	х			STEM Elective [300/400 level]	3	х			
General Elective*	3				General Elective*	3				
General Elective*	3				General Elective*	3				
Apply for Spring graduation prior to Sep 9th										
Semester Total	15				Semester Total	15				
Degree Total (as listed in above sample): 120 (120 hours minimum required to earn degree)										

Assumptions: college-level readiness in MTH & ENG; no Foreign Language Deficiency

College/ Program Notes:

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.

*General Electives ensure that a student accumulates the minimum credit hour totals needed for graduation. Students must have a minimum of 120 total credit hours, of which a minimum of 42 credit hours must be upper division (300 or 400-level courses). Depending upon elective choices made, students may not need as many electives as indicated above, or may need additional electives.

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

^^Choose two courses from the following: PHY 335, 360, or 455.

University Notes:

Gen Ed Key:

INTRO = Introduction to University Life (one course)

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

M/QL = Mathematics/Quantitative Literacy (two courses)

NS = Natural Sciences (two courses, one of which must have a lab)

SS = Social Sciences (two courses from different departments**)
A&H = Arts & Humanities (two courses from different departments**)

DIV = Social Diversity (two courses; one US Diversity and one African American Experience)

 $WAC/SPAC = Writing/Speaking\ Across\ the\ Curriculum\ (three\ courses,\ one\ in\ the\ major;\ C\ or\ better\ required)$

CAP = Capstone

** of the four total SS and A&H courses, one must be focused on Africa, Latin America, Asia or the Middle East (ALAAME)

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