

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

**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	X	NS
ENG 101 English I	3		W/C	MTH 182 Calculus II	4	X	M/QL
MTH 181 Calculus I	4	X	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				
<i>Semester Total</i>	14			<i>Semester Total</i>	15		

**Second Year**

Fall Semester	Credits	Major	Gen Ed	Spring Semester	Credits	Major	Gen Ed
PHY 244 University Physics II	5	X	NS;WAC	PHY 325 Intro Theoretical Physics	3	X	
MTH 281 Multivariable Calculus	4	X		PHY 330 Intro Modern Physics	3	X	
Arts & Humanities Elective**	3		A&H	Writing Across the Curriculum Elective	3		WAC
PHY 320 Intro Computational Physics <sup>^</sup>	3	X		US Diversity Elective	3		DIV
				Arts and Humanities Elective**	3		A&H
<i>Semester Total</i>	15			<i>Semester Total</i>	15		

**Third Year**

Fall Semester	Credits	Major	Gen Ed	Spring Semester	Credits	Major	Gen Ed
STEM Elective [300/400 level]	3	X		PHY 341 Mechanics and Vibrations II	3	X	
PHY 340 Mechanics and Vibrations I	3	X		PHY 440 Quantum Physics I	3	X	
PHY 474 Thermal Physics	3	X		PHY 475 Statistical Physics	3	X	
Writing Across the Curriculum Elective	3		WAC	General Elective*	3		
General Elective*	3			General Elective*	3		
<i>Semester Total</i>	15			<i>Semester Total</i>	15		

**Fourth Year**

Fall Semester	Credits	Major	Gen Ed	Spring Semester	Credits	Major	Gen Ed
PHY 350 Electricity & Magnetism I	3	X		PHY 351 Electricity & Magnetism II	3	X	
PHY 335, 460, or 455 <sup>^^</sup>	3	X		PHY 335, 460, or 455 <sup>^^</sup>	3	X	
PHY 450 Optics & Electromagnetic Waves	3	X		STEM Elective [300/400 level]	3	X	
General Elective*	3			General Elective*	3		
General Elective*	3			General Elective*	3		
<b>Apply for Spring graduation by the middle of this term</b>				PHY 498 Capstone Senior Project	1		CAP
<i>Semester Total</i>	15			<i>Semester Total</i>	16		
<b>Degree Total (as listed in above sample): 120 (120 hours minimum required to earn degree)</b>							

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.

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

<sup>^^</sup>Choose two courses from the following: PHY 335, 460, or 455.

**University Notes:**

**Gen Ed Key:**

INTRO = Introduction to University Life (one course)	SS = Social Sciences (two courses from different departments**)
W/C = Writing/Composition (two courses; C or better required)	A&H = Arts & Humanities (two courses from different departments**)
M/QL = Mathematics/Quantitative Literacy (two courses)	DIV = Social Diversity (two courses; one US Diversity and one African American Experience)
NS = Natural Sciences (two courses, one of which must have a lab)	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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