Cleveland State University
College of Science and Health Professions

Bachelor of Science in Physics

- NEW FALL 2014 -

First Year								
Fall Semester	**Credits**	**Major**	**Gen Ed**		**Spring Semester**	**Credits**	**Major**	**Gen Ed**
ASC 101 Introduction to University Life	1		INTRO		PHY 241^ or 243 University Physics I	5	X	NS,WAC
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 (outside US/ALAAME)	3		SS
Social Science Elective	3		SS		ENG 102 English II	3		W/C
CIS 151 Invitation to Computing	3	X						
Semester Total	*14*				*Semester Total*	*15*		

Second Year								
Fall Semester	**Credits**	**Major**	**Gen Ed**		**Spring Semester**	**Credits**	**Major**	**Gen Ed**
PHY 242^ or 244 University Physics II	5	X	NS;WAC		PHY 330 Intro Modern Physics	3	X	
MTH 281 Multivariable Calculus	4	X			Writing Across the Curriculum Elective	3		WAC
African American Experience Elective	3		DIV		Arts & Humanities Elective	3		A&H
CIS 260 Intro Programming	4	X			US Diversity Elective	3		DIV
					General Elective*	3		
Semester Total	*16*				*Semester Total*	*15*		

Third Year								
Fall Semester	**Credits**	**Major**	**Gen Ed**		**Spring Semester**	**Credits**	**Major**	**Gen Ed**
PHY 320 Intro Computational Physics	3	X			PHY 325 Intro Theoretical Physics	3	X	
PHY 340 Mechanics and Vibrations I	3	X			PHY 341 Mechanics and Vibrations II	3	X	
PHY 474 Thermal Physics	4	X	CAP		PHY 440 Quantum Physics I	3	X	
Arts and Humanities Elective (outside US/ALAAME)	3		A&H		PHY 475 Statistical Physics	3	X	
General Elective*	3				Physics Elective [300/400 level]	3	X	
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	X			PHY 351 Electricity & Magnetism II	3	X	
PHY 360 Electronics Lab	3	X			PHY 455 Optics Lab	3	X	
PHY 450 Optics & Electromagnetic Waves	3	X			General Elective*	3		
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): 121 ***(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.

^The PHY 241/242 sequence does not qualify for WAC credit; students choosing PHY 241/242 will need to complete 2 additional WAC courses.

*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.

University Notes:

Gen Ed Key:	
INTRO = Introduction to University Life Requirement (one course)	SS = Social Sciences Requirement (2 courses, one of which must be focused outside the US**)
W/C = Writing/Composition Requirement (two courses; C or better required)	A&H = Arts & Humanities Requirement (2 courses, one must be focused outside the US**)
M/QL = Mathematics/Quantitative Literacy Requirement (two courses)	DIV = Social Diversity Requirement (2 courses; one US Diversity and one African American Exp.)
NS = Natural Sciences (two courses, one of which must have a lab)	WAC/SPAC = Writing/Speaking Across the Curriculum Requirement (3 courses, one in the major)
** of the SS and A&H courses focused outside the US, one must be focused on Africa, Latin America, Asia or the Middle East (ALAAME)	CAP = Capstone Requirement

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Last Updated February 2014

Cleveland State University
College of Science and Health Professions

Bachelor of Science in Physics - Honors

- NEW FALL 2014 -

First Year

Fall Semester	Credits	Major	Gen Ed	Spring Semester	Credits	Major	Gen Ed
ASC 101 Introduction to University Life	1		INTRO	PHY 243H University Physics I	5	X	NS,WAC
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 (outside US/ALAAME)	3		SS
Social Science Elective	3		SS	ENG 102 English II	3		W/C
CIS 151 Invitation to Computing	3	X					
Semester Total	*14*			*Semester Total*	*15*		

Second Year

Fall Semester	Credits	Major	Gen Ed	Spring Semester	Credits	Major	Gen Ed
PHY 244H University Physics II	5	X	NS;WAC	PHY 330 Intro Modern Physics	3	X	
MTH 281 Multivariable Calculus	4	X		Writing Across the Curriculum Elective	3		WAC
African American Experience Elective	3		DIV	Arts & Humanities Elective	3		A&H
CIS 260 Intro Programming	4	X		US Diversity Elective	3		DIV
				General Elective*	3		
Semester Total	*16*			*Semester Total*	*15*		

Third Year

Fall Semester	Credits	Major	Gen Ed	Spring Semester	Credits	Major	Gen Ed
PHY 320 Intro Computational Physics	3	X		PHY 325 Intro Theoretical Physics	3	X	
PHY 340 Mechanics and Vibrations I	3	X		PHY 341 Mechanics and Vibrations II	3	X	
PHY 474 Thermal Physics	4	X	CAP	PHY 440 Quantum Physics I	3	X	
Arts and Humanities Elective (outside US/ALAAME)	3		A&H	PHY 475 Statistical Physics	3	X	
General Elective*	3			PHY 395 Seminar	3	X	
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	X		PHY 351 Electricity & Magnetism II	3	X	
PHY 360 Electronics Lab	3	X		PHY 455 Optics Lab	3	X	
PHY 450 Optics & Electromagnetic Waves	3	X		General Elective*	3		
PHY 441 Quantum Physics II	3	X		General Elective*	3		
PHY 493 Advanced Topics In Physics	2	X		General Elective*	3		
Apply for Spring graduation prior to Sep 9th				PHY 493 Advanced Topics In Physics	2	X	
Semester Total	*14*			*Semester Total*	*15*		
Degree Total (as listed in above sample): 122 ***(120 hours minimum required to earn degree)***							

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