

CURRICULUM GUIDE
Physics, B.S. (General Physics Concentration)
2019-2020

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The schedule below is an **EXAMPLE** of how you can arrange your class schedule.
 Please consult your advisor for specific changes that may need to be made.

	Fall Semester		Spring Semester		Course Number	Course Name
Freshman Year	SCO 100P	1	CHE 112	3	GENERAL EDUCATION & UNIVERSITY REQUIREMENTS (37)	
	⁶ CHE 111 (fulfills Gen. Ed. 4)	3	CHE 112L	1	SCO 100P	Student Success Seminar in Physics (1)
	CHE 111L	1	MAT 244	4	CORE COURSE REQUIREMENTS (21)	
	⁶ MAT 234 (fulfills Gen. Ed. 2)	4	PHY 201	5	PHY 201	University Physics I (5)
	Gen. Ed. 1A (ENG 101)		Gen. Ed. 1B (ENG 102)	3	PHY 202	University Physics II (5)
	Gen. Ed. 4 (Nat. Sci.) (AST 335 recommended)	3			PHY 211	Intermediate Physics (4)
TOTAL	15	TOTAL	16	PHY 302 or PHY 302W	Modern Physics (4)	
Sophomore Year	MAT 254	4	CSC 174 <i>or</i> 190	3	PHY 406 or PHY 406W	Advanced Physics Laboratory (3)
	MAT 353	3	PHY 211	4		Advanced Physics Laboratory (writing intensive) (3)
	PHY 202	5	Gen. Ed. 3A (Arts)	3	GENERAL PHYSICS CONCENTRATION REQUIREMENTS (22)	
	Gen. Ed. 1C (Oral Comm.)	3	Gen. Ed. 3B (Humanities)	3	PHY 310	Theoretical Methods in Physics (3)
			Gen. Ed. 5B (Soc. & Behav. Sci.)	3	PHY 421	Electricity and Magnetism I (3)
	TOTAL	15	TOTAL	16	PHY 422	Electricity and Magnetism II (3)
Junior Year	PHY 302 or 302W	4	PHY 406 or 406W (ACCT)	3	PHY 456	Statistical and Thermal Physics (3)
	PHY 310	3	PHY 460	4	PHY 460	Classical Mechanics (4)
	† PHY Elective (upper division)	3	Gen. Ed. 6 (Diversity)	3	PHY 470	Quantum Mechanics (3)
	Gen. Ed. 5A (History)	3	Free Elective (upper division)	3	† PLUS THREE (3) HOURS selected from any PHY course numbered 300 or above, except PHY 506.	
			Free Elective	3	SUPPORTING COURSE REQUIREMENTS (20)	
	TOTAL	13	TOTAL	16	⁶ CHE 111	General Chemistry I (3)
Senior Year	PHY 421	3	PHY 422	3	CHE 111L	General Chemistry Lab I (1)
	PHY 456	3	PHY 470 (ACCT)	3	CHE 112	General Chemistry II (3)
	Gen. Ed. 6 (Diversity)	3	Free Elective	4	CHE 112L	General Chemistry Lab II (1)
	Free Elective (upper division)	3	Free Elective	4	‡ CSC 174 <i>or</i>	Intro. to Programming for Science and Engineering (3)
	Free Elective (upper division)	3			CSC 190	Object-Oriented Programming I (3)
	TOTAL	15	TOTAL	14	⁶ MAT 234	Calculus I (4)
TOTAL HOURS TO DEGREE COMPLETION				120	MAT 244	Calculus II (4)
					MAT 254	Calculus III (4)
					MAT 353	Differential Equations (3)
					Bracketed items must be taken concurrently.	
					‡ or any departmentally approved programming language course.	
					FREE ELECTIVES (20)	

* **PREREQUISITES:** Consult with your advisor and/or the University catalog regarding prerequisites for upper division PHY courses. MAT 122, 234, and/or 244; CHE 111/111L. See University catalog for details.
 § A preparatory course in mathematics may be required before admission to MAT 234.

Upper division courses: All students are required to have a minimum of 42 hrs. upper division (300 level or above) courses distributed throughout major/Supporting/Gen Ed/Free Electives categories. If 300 level classes are taken for Gen. Ed., they can be used to fulfill the 42 hours instead of upper division free electives.

Refer to the University Catalog at <http://www.catalogs.eku.edu/> regarding University and General Education Requirements. All baccalaureate degree seeking students who enter the University are required to successfully complete one writing intensive course following completion of the ENG 102, ENG 105, or HON 102/103. Writing intensive courses are designated with the suffix "W" following the course prefix and number (e.g. HUM 300W).

Applied Critical & Creative Thinking (ACCT) Requirement: Physics majors will select one of the following: PHY 349, 349 A-N, 406, 406W, 410, 470, HON 420, a program-approved Leadership Experience, or a program-approved Study Abroad experience. (Credit hours are incorporated into program requirements.)

⁶ Denotes that 3 credit hours from this course are/can be applied to fulfill a Gen. Ed. requirement. Courses used to fulfill Gen. Ed. 4 must have different prefixes.