

BA in Physics 2022 – 2023 Catalog

Freshman Year

This plan is unofficial and should be used for reference only.

First Semester*	(Th-Pr)	Cr	Second Semester	(Th-Pr)	Cr
PHYS 101 Topics in Cont. Physics ¹	(1-0)	1	ASTR 102 Observational Astronomy	(0-3)	1
MATH 171 Analytic Geom. and Calculus ¹	(4-0)	4	PHYS 206 Newtonian Mech. for Engr. and Sci. ¹	(3-0)	3
PHYS 150 Intro to Programming for Physics	(3-0)	3	PHYS 226 Physics of Motion Lab for Sci. ¹	(0-2)	1
ENGL 104 Comp. and Rhetoric	(3-0)	3	MATH 172 Calculus ¹	(4-0)	4
HIST 105 History of the U.S. ²	(3-0)	3	Language, Philosophy and Culture elective ²	(3-0)	3
			HIST 106 History of the U.S. ²	(3-0)	3
		14			15

Sophomore Year

First Semester	(Th-Pr)	Cr	Second Semester	(Th-Pr)	Cr
PHYS 207 Elect. & Mag. for Engr. and Sci. ¹	(3-0)	3	PHYS 225 Electronic Circuits	(1-4)	3
PHYS 227 Elect. & Mag. Lab for Sci. ¹	(0-3)	1	PHYS 309 Modern Physics ¹	(3-0)	3
PHYS 221 Optics and Thermal Physics ¹	(3-0)	3	PHYS 331 Theoretical Methods I ¹	(3-0)	3
MATH 221 Several Variable Calculus ¹	(4-0)	4	Elective ³		7
MATH 308 Differential Equations ¹	(3-0)	3			
		14			16

Junior Year

First Semester	(Th-Pr)	Cr	Second Semester	(Th-Pr)	Cr
PHYS 302 Adv. Mechanics I	(3-0)	3	PHYS 327 Experimental Physics ⁵	(1-2)	2
PHYS 304 Adv. Elect. and Magn. I	(3-0)	3	PHYS 328 Experimental Physics II ⁵	(1-1)	1
PHYS 332 Theoretical Methods II	(3-0)	3	PHYS 412 Quantum Mechanics I	(3-0)	3
Social and Behavioral Sciences elective ²	(3-0)	3	Communication elective ⁴		3
POLS 206 American Nat'l. Govt.		3	POLS 207 State and Local Govt.		3
			Electives ³		3
		15			15

Senior Year

First Semester	(Th-Pr)	Cr	Second Semester	(Th-Pr)	Cr
Science or Technical elective ⁶	(3-0)	3	Physics Elective ⁷	(3-0)	3
Electives ³		13	Creative Arts elective ²		3
			Electives ³		9
		16			15

- NOTES: 1. A physics major must complete the foundation courses (ASTR 102, PHYS 101, 150, 206/226, 207/227, 221, 309, 331, MATH 171, 172, 221, 308) with a grade of 'C' or better and have a 2.0 cumulative GPR before taking non-foundation upper-level physics courses.
2. Any course in this category from the approved University Core Curriculum list of courses.
3. A minor is required and, along with other free electives, should be chosen in consultation with the student's advisor. Three hours must be in the area of International and Cultural Diversity, and three hours must be in the area of Cultural Discourse. These may be in addition to other University Core Curriculum courses, or if a course in this category satisfies another area of the Core, it can be used to meet both requirements. Electives may be selected from any 100-499 course not used elsewhere, except ENGL 103; MATH 100-148, MATH 165-166, MATH 365, MATH 366; PHYS 201, PHYS 202.
4. PHYS 327 is an approved W course. PHYS 328 is an approved C course.
5. Any approved Communication course, except THAR 407.
6. Any upper-division course within the College of Science, College of Geosciences or College of Engineering (except 485/491).
7. Select from ASTR 314, PHYS 401, PHYS 414, PHYS 416, PHYS 418, PHYS 489, MATH 460.
- *SCEN 100 or an equivalent course is required for all Freshmen in their first semester. This is a 0 credit hour course graded S/U.

Beginning in the Sophomore Year - Second Semester: PHYS courses are offered only once a year in the semester shown on this plan.