

PHYSICS MAJOR (PHYS.BA)

<u>Required Courses</u>		<u>Hrs.</u>	<u>Prereq.</u>	<u>Rec.Yr.</u>
MATH 161	Calculus I	4	C or better in MATH 130 or equiv or placement	Fr
MATH 162	Calculus II	4	C (2.0) or better in MATH 161 or equiv; Coreq MATH 163	Fr
MATH 163	Technology for Calculus	1	Coreq MATH 162	Fr
MATH 223	Calculus III	4	C (2.0) or better in MATH 162 or equiv; Pre or coreq MATH 163	Soph
MATH 230	Differential Equations	4	MATH 162; Pre or coreq MATH 163	Soph
PHYS 161	General Physics I w/Calculus	4	Pre or coreq MATH 161	Fr
PHYS 162	General Physics II w/Calculus	4	Pre or coreq MATH 161	Fr
PHYS 210	Light & Atomic Physics	3	MATH 161, PHYS 152 or 162; Coreq PHYS 211L	Soph
PHYS 211L	Light & Atomic Phys Lab	1	Coreq PHYS 210	Soph
PHYS 220	Nuclear Physics	3	PHYS 210; Coreq PHYS 221L	Soph
PHYS 221L	Nuclear Physics Lab	1	Coreq PHYS 220	Soph
PHYS 250	Electronics	3	PHYS 152 or 162, MATH 161; Coreq PHYS 251L	Soph
PHYS 251L	Electronics Lab	1	Coreq PHYS 250	Soph
PHYS 305L	Electro-Optics Lab	1	PHYS 210	Jr
PHYS 310	Analytical Mechanics	3	PHYS 151 or 161, PHYS 152 or 162; MATH 162	Jr
PHYS 330	Solid State Physics	3	PHYS 152 or 162, MATH 162; Coreq PHYS 331L	Jr
PHYS 331L	Solid State Physics Lab	1	Coreq PHYS 330	Jr
PHYS 360	Electromagnetic Theory	3	PHYS 151 or 161, 152 or 162; Pre or coreq MATH 230	Jr
^PHYS 497	Research Seminar I	1	Physics Major	Sr
^PHYS 498	Research Seminar II	1	PHYS 497	Sr
		<u>50 total hours</u>		

^Satisfies advanced writing requirement

PHYS 151 & PHYS 152 may be substituted for PHYS 161 & 162.

Students may not receive credit for PHYS 151 and PHYS 161 or PHYS 152 and PHYS 162.

NAME: _____

B.A. Degree: Physics Major (for students entering in Fall 2024/Spring 2025)

In the "WHAT" column, enter the specific course number when applicable--e.g. HIST 121. In the "WHEN" column, enter the term and year in which the requirement is satisfied--e.g., sp '20.

Liberal Arts Core	
WHAT	WHEN
_____	ENGL 101* w/ C (2.0) [3 hrs]
_____	ENGL 110 w/ C (2.0) [3 hrs]
_____	COMM 211 w/ C (2.0) [3 hrs]
_____	Dept senior seminar/writing course
_____	Met by: _____ PHYS 497 [1 hr]
_____	AND _____ PHYS 498 [1 hr]
_____	FYEX 101 [3 hrs]
_____	FYEX 102 [1 hr]
_____	FYEX 103/104/105/106/107 [1 hr]
_____	FYEX 103/104/105/106/107 [1 hr]
_____	FYEX 401 [1 hr]
_____	Foundational Scientific Inquiry [3-4 hrs]
_____	Foundational Quantitative Analysis [3-4 hrs]

No more than two lens courses may come from same departmental prefix and one lens must be taken at 300 level or above.

_____	_____	Ethical/Spiritual Explor Lens (ETSP) [3 hrs]
_____	_____	Aesthetic Expression Lens (AEXP) [3 hrs]
_____	_____	Per & Soc Well Being Lens (PSWB) [3 hrs]
_____	_____	Cultural Perspectives Lens (CEXP) [3 hrs]
_____	_____	Experimental Inquiry Lens (EXIN) [3 hrs]

37 – 39 Total semester hours

_____ 120 semester hours required for graduation

*Enter NA (not applicable) if waived upon admission

Physics Major	
WHAT	WHEN
_____	PHYS 161 [4 hrs]
_____	PHYS 162 [4 hrs]
_____	PHYS 210 [3 hrs]
_____	PHYS 211L [1 hr]
_____	PHYS 220 [3 hrs]
_____	PHYS 221L [1 hr]
_____	PHYS 250 [3 hrs]
_____	PHYS 251L [1 hr]
_____	PHYS 305L [1 hr]
_____	PHYS 310 [3 hrs]
_____	PHYS 330 [3 hrs]
_____	PHYS 331L [1 hr]
_____	PHYS 360 [3 hrs]
_____	PHYS 497 [1 hr]
_____	PHYS 498 [1 hr]
_____	MATH 161 [4 hrs]
_____	MATH 162 [4 hrs]
_____	MATH 163 [1 hr]
_____	MATH 223 [4 hrs]
_____	MATH 230 [4 hrs]
_____	50 semester hours

➤ Except in specifically approved majors, a maximum of 52 hours in an academic discipline may count toward graduation. Three hours over the limit may count to accommodate an internship in the discipline.

➤ Only six hours of any minor may overlap with the required credit hours of a student's chosen major. The overlap constraint is not applicable to courses that majors or minors MUST take in others departments.

➤ PHYS 151 and 152 may be substituted for PHYS 161 and 162.