

BS Physics - 2 year plan

		Fall	Pre-req courses	units	Term offered		Spring	Pre-req courses	units	Term offered
Year 1	MATH 2310	Applied Linear Algebra	Math 2210 with grade of C- or higher, and Math 2220 as pre- or co-req	4	Fall & Spring		CHEM 2100 General Chemistry I	1 yr HS chemistry or equivalent AND pre- or co-req of one of Math 1301, 1401, 1601, 2210, or 2220	4	Fall & Spring
	PHYS 1500	Tools for Physicists	none	3	Fall		CHEM 2100L General Chemistry I Laboratory	co-req of CHEM 2100	1	Fall & Spring
	PHYS 3100	Mathematical Methods of Physics	MATH 2320 with a grade of C (2.0) or higher, MATH 2310, PHYS 100, PHYS 2510, and a combined 2.0 GPC in 2000-level physics courses	4	Fall		PHYS 2600L Introduction to Electronics	PHYS 2210 & MATH 2310	1	Spring
	PHYS 3200	Classical Mechanics	PHYS 2510, PHYS 2510L, and a co-req of PHYS 3100	4	Fall		PHYS 3400 Electricity & Magnetism	PHYS 3100 with a grade of C- or better & PHYS 2700 with a grade of C- or better or co-req of PHYS 2700	3	Spring
	PHYS 3300	Computational Physics	PHYS 2510, PHYS 2510L, and a co-req of PHYS 3100	3	Fall		PHYS 3800 Intermediate Physics Laboratory	PHYS 2600L, PHYS 2700, PHYS 3300 AND a co-req of PHYS 2700 & PHYS 2600L	2	Spring
							GE courses		3	Fall & Spring
		Total units		18			Total units		14	
Year 2	PHYS 4400	Electricity & Magnetism II	PHYS 3400 with a grade of C- or better	3	Fall		PHYS 3500 Statistical and Thermal Physics	PHYS 2700 and PHYS 3100 both with a grade of C- or better	4	Spring
	PHYS 4700	Quantum Mechanics	PHYS 2700, PHYS 3100, PHYS 3200, and PHYS 3400 all with grades of C- or better in each course	4	Fall		PHYS 4800 Senior Thesis (WI)*	PHYS 3200, PHYS 3400, and PHYS 3800	2	Spring
		PHYS Elective		3	Fall & Spring		PHYS Elective		6	Fall & Spring
		GE courses		3	Fall & Spring		GE courses		3	Fall & Spring
		Total units		13			Total units		15	
							*Can be substituted by ASTR 4000 Observational Astronomy (WI)			

NOTES:

- PHYS courses are in bold.
- Assumes student have transferred in with the Associate in Science Degree (AS-T) in Physics. Includes intro physics sequence through modern physics, year-long calculus sequence, and multivariable calculus, plus all lower division GEs.
- An additional 2 units of coursework of the student's choosing across the university will be required for graduation.
- Completing the requirements of the BS Physics will simultaneously satisfy the following GE requirements:
 GE Math (Area B4)
 GE Physical Science (Area B1)

 GE lab (Area B-lab)
 1 out of 2 Writing Intensive courses - upper division (this leaves 1 writing intensive course of the student's choosing upper or lower division

Elective Courses

	Course	Pre-req courses	units	Term offered
PHYS 3600	Data Acquisition and Control	PHYS 2600L, PHYS 3100, PHYS 3300	2	Spring
PHYS 4600	Electronics	PHYS 3600	3	
PHYS 4851-3	Special Topics in Physics	depends on the topic	1-3	
PHYS 4851L-2L	Special Topics in Physics	depends on the topic	1-3	
PHYS 5100	Mathematical Methods of Physics II	PHYS 3100	3	
PHYS 5400	Optics	PHYS 4400	3	Spring
PHYS 5500	Solid State Physics	PHYS 4700	3	Spring
PHYS 5700	Quantum Mechanics II	PHYS 4700 with grade of C (2.0) or better	3	Spring
PHYS 5751-3	Internship		1-3	Fall & Spring
PHYS 5851-3	Special Topics in Physics	depends on the topic	1-3	
PHYS 5851L-2L	Special Topics in Physics	depends on the topic	1-3	
PHYS 5951-3	Independent Study		1-3	Fall & Spring
ASTR 2300	Introduction to Astronomy for Scientists*	PHYS 2510, PHYS 2510L	4	Spring
ASTR 3300	Astrophysics of Planetary Systems	ASTR 2300	3	
ASTR 3310	Astrophysics of Galaxies and Cosmology	ASTR 2300	3	
ASTR 4000	Observational Astronomy (WI)	ASTR 2300, PHYS 3300 or other programming course	3	Fall

* Does not count as an elective towards the BA or BS physics, but is a pre-req for ASTR 3300, ASTR 3310, and ASTR 4000 which are approved electives for those degrees.

** Specific elective courses are not guaranteed to be offered each year, but a selection of electives will be offered each year at the discretion of the department.