BS Physics - Alternate 3 year plan

		Fall	Pre-req courses	units	Term offered			Spring	Pre-req courses	units	Term offered
Year 1	MATH 2220	Calculus II	Math 2210 with grade of C- or higher	4	Fall & Spring		MATH 2320	Multivariable Calculus	Math 2220 and Math 2310 both with grade of C- or higher	4	Fall & Spring
	MATH 2310	Applied Linear Algebra	Math 2210 with grade of C- or higher, and Math 2220 as pre- or co-req	4	Fall & Spring		**PHYS 2510**	**General Physics II**	PHYS 2500 & MATH 2220	**4**	**Fall & Spring**
	PHYS 1500	**Tools for Physicists**	none	**3**	**Fall**		**PHYS 2510L**	**General Physics II Lab**	PHYS 2500, MPHYS 2500L, & MATH 2220 and co-req of PHYS 2510	**1**	**Fall & Spring**
	PHYS 2500	**General Physics I**	MATH 2210 and co-req of MATH 2220	**4**	**Fall & Spring**		**PHYS 2600L**	**Introduction to Electronics**	PHYS 2210 & MATH 2310	**1**	**Spring**
	PHYS 2500L	**General Physics I Lab**	MATH 2210 and co-reqs of MATH 2220 & PHYS 2500	**1**	**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
							CHEM 2100L	General Chemistry I Laboratory	co-req of CHEM 2100	1	Fall & Spring
		Total units		**16**				Total units		**15**	
Year 2	**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 2700**	**Modern Physics**	MATH 2310, PHYS 1500, PHYS 2510, PHYS 2510L & a co-req of MATH 2320	**3**	**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			GE courses		3	Fall & Spring
		Total units		**14**				Total units		**11**	
Year 3	**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**		**3**	**Fall & Spring**
		GE courses		3	Fall & Spring			**PHYS Elective**		**3**	**Fall & Spring**
		Total units		**13**				Total units		**12**	
								***Can be substituted by ASTR 4000 Observational Astronomy (WI)**			

NOTES:

1. PHYS courses are in bold.
2. Students will still need to complete 42 units of GE credit to graduate. This includes the 9 units of GE shown above. At least 9 UD units of GE need to be completed at CSUSB, as shown above.
2. Above plan only advisable for students who have completed MATH 2210 & numerous GE units prior to starting year 1 on the 3 yr plan.
3. An additional 2 units of coursework of the student's choosing across the university will be required for graduation.
4. 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 guarenteed to be offered each year, but a selection of electives will be offered each year at the discretion of the department.**