

Study Plan for BSc in Physics

First Year: Freshman Year							
Semester 1 – Fall				Semester 2 - Spring			
Course Code	Course Title	Cr. Hrs.	Pre /Co-requisites	Course Code	Course Title	Cr. Hrs.	Pre /Co-requisites
CC	Core Curriculum 1	3	None	CC	Core Curriculum 5	3	None
CC	Core Curriculum 2	3	None	CC	Core Curriculum 6	3	None
CC	Core Curriculum 3	3	None	MATH 102	Calculus II	3	MATH 101
CC - MATH 101	Core Curriculum 4: Calculus I	3	None	PHYS 115	Electricity and Magnetism	3	PHYS 101, PHYS 120, Pre /Co/ MATH 102
PHYS 101	General Physics	3	MATH101-Co	PHYS116	Electricity and Magnetism Lab	1	PHYS115-Co/Pre
PHYS 120	General Physics Lab	1	PHYS101-Co/Pre	CHEM 101	General Chemistry (I)	3	None
				CHEM 103	Experimental General Chemistry	1	None
TOTAL		16		TOTAL		17	
Second Year: Sophomore Year							
Semester 3 – Fall				Semester 4 – Spring			
Course Code	Course Title	Cr. Hrs.	Pre /Co-requisites	Course Code	Course Title	Cr. Hrs.	Pre /Co-requisites
CC	Core Curriculum 7	3	None	CC	Core Curriculum 8	3	None
PHYS 229	Introductory Modern Physics	3	PHY 115, MATH 211 Co/Pre	CC	Core Curriculum 9	3	None
PHYS 230	Introduction to Modern Physics Lab	1	PHYS 229 Co/Pre	MATH 285	Mathematics for Electrical Engineering	3	MATH 102
MATH 211	Calculus III	3	MATH 102	MAHT 231	Linear Algebra	3	MATH 101
PHYS 258	Thermodynamics & Statistical Physics	3	PHYS 101, Pre/Co MATH 211	PHYS 251	Vibrations, and Waves	2	PHYS 116
PHYS 260	Thermodynamics and Statistical Physics Lab	1	Pre/Co PHYS 258	PHYS 303	Mathematical Methods of physics	3	MATH 211
TOTAL		14		TOTAL		17	

Third Year: Junior Year							
Semester 5 – Fall				Semester 6 - Spring			
Course Code	Course Title	Cr. Hrs.	Pre /Co-requisites	Course Code	Course Title	Cr. Hrs.	Pre /Co-requisites
BIOL 101	Biology I	3	ENG 202	GEOL 101	Principles of General Geology	3	ENG 202
CC	Core Curriculum 10	3	None	PHYS 219	Electronics I	2	PHYS 116
CC	Core Curriculum 11	3	None	PHYS 223	Electronics I Lab	1	Pre/Co PHYS219
PHYS 331	Classical Mechanics	3	PHYS 101, PHYS 303	PHYS 301	Electromagnetic Theory	3	PHYS 115, PHYS 303
PHYS 375	Optics	2	PHYS 251	PHYS 333	Quantum Mechanics I	3	PHYS 229, PHYS 303
PHYS 376	Optics Lab	1	Pre/Co PHYS 375	PHYS 353	Introductory Nuclear Physics I	3	PHYS 229
PHYS341	Solid State Physics I	2	PHYS 229- PHYS 230	PHYS 354	Introductory Nuclear Physics Lab	1	Pre/Co PHYS351
				PHYS 490	Internship (summer of the 3 rd year)	0	Department Approval and minimum of 90 CH
TOTAL		17		TOTAL		16	
Fourth Year: Senior Year							
Semester 7 – Fall				Semester 8– Spring			
Course Code	Course Title	Cr. Hrs.	Pre /Co-requisites	Course Code	Course Title	Cr. Hrs.	Pre /Co-requisites
PHYS 462	Statistical Mechanics	2	PHYS 333	PHYS XXX	Focus Area Course 5	2	
PHYS378	Computational Physics	2	PHYS 303	PHYS XXX	Focus Area Course 6	1	
PHYS XXX	Focus Area Course 1	2		PHYS XXX	Focus Area Course 7	3	
PHYS XXX	Focus Area Course 2	1		PHYS XXX	Focus Area Course 8	3	
PHYS XXX	Focus Area Course 3	3		PHYS 499	Senior Project	1	Department Approval
PHYS XXX	Focus Area Course 4	3					
TOTAL		13		TOTAL		10	