

ENGINEERING PHYSICS (BS)

Suggested Sequence of Courses for a Bachelor of Science Degree in Engineering Physics

Course	Title	Hours
Freshman Year		
First Semester		
ENGR-1200	Introduction to Engineering	2
GNST-1000	BC Experience	1
MATH-1300	Calculus I	4
PHYS-2100	Classical Physics I	3
PHYS-2101	Classical Physics I Lab	1
PHIL-1750	Principles of Nature	3
CHEM-1200	General Chemistry I Lecture	3
CHEM-1201	General Chemistry I Laboratory	1
Hours		18
Second Semester		
ENGR-1500	Technical Drawing	2
MATH-1350	Calculus II	4
PHYS-2110	Classical Physics II	3
PHYS-2111	Classical Physics II Lab	1
ENGL-1010	English Composition	3
Select one of the following:		4
CHEM-1210 & CHEM-1211	General Chemistry II Lecture and General Chemistry II Lab	
or Technical Elective		
Hours		17
Sophomore Year		
First Semester		
PHYS-3200	Relativity & Atomic Physics	3
PHYS-3201	Modern Physics Lab	1
ENGR-2300	Statics	3
MATH-2300	Calculus III	4
THEO-1100	Introduction to Theology	3
Select one of the following:		3-5
PHYS-4700 & ENGR-3400	Condensed Matter Physics and Materials Laboratory	
or ENGR-3500		
Hours		17-19
Second Semester		
Select one of the following:		3
PHYS-3210 & PHYS-3211 & PHYS-3201	Nuclear & Elementary Particle Physics and Modern Physics Lab II and Modern Physics Lab	
or Technical Elective		
MATH-3100	Differential Equations	3
Select one of the following:		4
EENG-2060 & EENG-3060	Linear Circuit Analysis I and Circuits Laboratory I	
or PHYS-3500		

PHYS-4400	Thermodynamics	3
Select one of the following:		2-3
ENGR-2000 or CSCI-2300	Computer Applications in Engineering or Programming for Scientists & Engineers	
Faith Foundation		3
Hours		18-19
Junior Year		
First Semester		
PHYS-4100 or ENGR-2310	Mechanics I or Dynamics	3
ENGR-3170	Engineering Economy & Society	3
ENGR-3300	Fluid Mechanics	3
PHYS-4900	Physics Colloquium	0
EXSC-1115	Wellness for Life	1
Philosophical Inquiry Foundation		3
Foreign Language		3
Hours		16
Second Semester		
ENGR-3600	Heat & Mass Transfer	3
ENGR-3410	Thermofluids Laboratory	2
PHYS-4901	Physics Colloquium	0
Technical Elective		3
PHYS-4910	Physics & Astronomy Research	1
Foreign Language		3
EXSC Fitness Course		1
Aesthetic Foundation		3
Hours		16
Senior Year		
First Semester		
PHYS-4600	Electricity & Magnetism I	3
Instrumentation Elective		3
PHYS-4902	Physics Colloquium	0
Philosophical Inquiry Foundation		3
Technical Elective		3
Aesthetic Foundation		3
Historical Inquiry		3
Hours		18
Second Semester		
PHYS-4800	Quantum Mechanics	3
Faith Foundation		3
Historical Inquiry Foundation		3
Technical Elective		3
PHYS-COMP	Senior Comprehensive Exam	0
PHYS-4903	Physics Colloquium	0
Design Elective		3
Hours		15
Total Hours		135-138