Sample schedule for BS in physics (applied and engineering physics concentration)

Number of credits in parentheses.

Courses designated “Elective” are entirely at the student's discretion.

At least 45 credits must be upper-level (300 or above). This sample schedule satisfies this requirement.

Fall of Year 1 (15)

MATH 113	(4)	Calculus I
ENGH 101	(3)	Composition
Mason Core	(3)	
Mason Core	(3)	
PHYS 122	(1)	Inside Relativity
PHYS 123	(1)	Inside the Quantum World

Spring of Year 1 (14)

MATH 114	(4)	Calculus II
PHYS 160	(3)	Physics I
PHYS 161	(1)	Physics I lab
Mason Core	(3)	
Mason Core	(3)	

Fall of Year 2 (16)

MATH 213	(3)	Calculus III
PHYS 260	(3)	Physics II
PHYS 261	(1)	Physics II lab
PHYS 251	(3)	Intro to Computer Techniques in Physics (satisfies Mason Core IT)
Mason Core	(3)	
Mason Core	(3)	

Spring of Year 2 (15)

MATH 214	(3)	Differential Equations
MATH 203	(3)	Linear Algebra
PHYS 262	(3)	Physics III
PHYS 325	(3)	Intermediate Computer Methods in Physics
Elective	(3)	

Fall of Year 3 (15)

PHYS 301	(3)	Analytical Methods of Physics
PHYS 303	(3)	Classical Mechanics
PHYS 305	(3)	Electromagnetic Theory
PHYS 311	(3)	Instrumentation
ENGH 302	(3)	Advanced Composition

Spring of Year 3 (15)

PHYS 306	(3)	Wave Motion and Electromagnetic Radiation
PHYS 307	(3)	Thermal Physics
PHYS 312	(3)	Waves and Optics
PHYS 402	(3)	Introduction to Quantum Mechanics and Atomic Physics
Elective	(3)	

Fall of Year 4 (16)

PHYS 403	(3)	Quantum Mechanics II
PHYS 407 or 410	(4)	Senior Laboratory or Computational Physics Capstone
PHYS 408 or 409	(3)	Senior Research or Physics Internship
ECE 415	(3)	Power System Analysis
Elective	(3)	

Spring of Year 4 (15)

PHYS 408 or 409	(3)	Senior Research or Physics Internship
PHYS 412	(3)	Solid State Physics and Applications
ECE 416	(3)	Electric Machinery and Modern Applications
Elective	(3)	
Elective	(3)	