## ENGINEERING SCIENCE MAJOR CHECKLIST BACHELOR OF SCIENCE

	BASIC SCIENCE & MATHEMATICS (7.5 units)		
Course Number	Course Title	Suggested Year	Done
MATH 121	Calculus I	FR	
MATH 122	Calculus II	FR	
PHYS 190	Physics & Engineering Colloquium (1/2)	FR	
PHYS 201	Newtonian Mechanics	FR	
PHYS 202	Electricity & Magnetism	SO	
PHYS 203	Atomic, Molecular, & Optical Physics	SO	
PHYS 270	Mathematical Methods for Physics	SO	
One additional ι	init from BIOL, CHEM, MATH, STAT, PHYS, or INQ/HNRS 240, 241, 25	50, or 251	
	ENGINEERING CORE (8.5 units)		
CPSC 120	Programming	FR	
ENGS 191	Engineering Foundations (1/2)	FR	
ENGS 200	Engineering Design Exploration	SO	
ENGS 211	Statics & Materials Testing	SO	
ENGS 220	Circuits & Electronics	SO	
ENGS 320	Instrumentation & Control Systems Engineering	JR	
ENGS 340	Introduction to Thermal & Fluid Sciences	JR	
ENGS 490	Design Capstone I	SR	
ENGS 491	Design Capstone II	SR	
	ELECTIVE COURSES (3 units)		
CPSC 250	Data Structures		
CPSC 363	Robotics		
ENGS 330	Dynamics		
ENGS 341	Heat & Mass Transfer		
ENGS 342	Fluid Mechanics		
ENGS 406	Independent Study (or ENGS 405 and ENGS 407)		
PHYS 250	Introduction to Nanomaterials		
PHYS 299	Special Topics (with approval)		
PHYS 450	Physics of Materials		
PHYS 499	Special Topics (with approval)		
	Total Units (At least 19)		

Note that this check sheet is intended as a guide; the Academic Catalog contains more details and nuances, and students are encouraged to check that book along with the academic advisors as needed.

See the next page for a 4-year course plan.

## **BS in Engineering Science**

