BEng. in Computer Engineering Program (based on Calendar of 2022-23)

The Computer Engineering Program consists of the Engineering Core (30.50 Credits), the Computer Engineering Core (72.50 Credits), and Elective Courses chosen from Computer Engineering Electives (minmum of 17.00 credits). Students may select one of the options as detailed in section 70.30.2 of the Undergraduate Calendar: 1) Pervasive Computing, 2) Biological and Biomedical Engineering, 3) General Stream. The minimum length of the program is 120 credits.

term/year passed	30.50 Credits	Course	Engineering Core	Prerequisite	Co-requisite
	3.50	ELEC 273	Basic Circuit Analysis	PHYS 205	ENGR 213
	3.00	ENCS 282	Technical Writing and Communication	Engineering Writing Test (EWT), or ENCS 272 (Grade of C- or better)	
	1.50	ENGR 201	Professional Practice and Responsibility		
	1.50	ENGR 202	Sustainable Development and Environmental Stewardship		
	3.00	ENGR 213	Applied Ordinary Differential Equations	MATH 205	MATH 204
	3.00	ENGR 233	Applied Advanced Calculus	MATH 204, 205	
	3.00	ENGR 301	Engineering Management Principles and Economics		
	3.00	ENGR 371	Probability and Statistics in Engineering	ENGR 213, 233	
	3.00	ENGR 391	Numerical Methods in Engineering	ENGR 213, 233; COEN 243	
	3.00	ENGR 392	Impact of Technology on Society	ENCS 282; ENGR 201, 202	
	3.00			General Education Elective from section 71.110 of the Undergraduate Calendar	
term/year passed	72.50 Credits	Course	Electrical Core	Prerequisite	Co-requisite
	3.50	COEN 212	Digital Systems Design I	MATH 204	
	3.00	COEN 231	Introduction to Discrete Mathematics	MATH 204	
	3.50	COEN 243	Programming Methodology I	MATH 204	
	3.00	COEN 244	Programming Methodology II	COEN 243	
	3.50	COEN 311	Computer Organization and Software	COEN 212, 243	
	3.50	COEN 313	Digital Systems Design II	COEN 212, 231	
	3.50	COEN 316	Computer Architecture and Design	COEN 311, 313	
	3.50	COEN 317	Microprocessor-Based Systems	COEN 311, 313	
	3.00	COEN 320	Introduction to Real-Time Systems	COEN 346	
	3.50	COEN 346	Operating Systems	COEN 311; COEN 352	
	3.00	COEN 352	Data Structures and Algorithms	COEN 231, 244	
	3.50	COEN 366	Communication Networks and Protocols	COEN 346	
	3.00	ELEC 242	Continuous-Time Signals and Systems	ELEC 273; ENGR 213	
	3.50	ELEC 311	Electronics I	ELEC 273	
	3.50	ELEC 342	Discrete-Time Signals and Systems	ELEC 242	
	3.50	ELEC 372	Fundamentals of Control Systems	ELEC 242	
	3.00	SOEN 341	Software Process and Practices	COEN 352 previously or concurrently	
	3.00	ENGR 290	Introductory Engineering Team Design Project	ENCS 282; ENGR 213, 233	ENCS 282
	3.00	COEN 390	Computer Engineering Product Design Project	Minimum of 45 credits in BEng (Computer); COEN 311, 352; ENGR 290	
	4.00	COEN 490 or ENGR 490	Capstone Electrical Engineering Design Project	ENGR 301, 371; COEN 390; SOEN 341; Minimum of 75 credits in Beng in Computer Engineering; C.Edge work term or one co-op work term. If pre-requisites are not satisfied, permission of the Department is required.	
	3.00			6 Credits of Science Electives from section 71.30.2 of the Undergraduate Calendar	
	3.00				
term/year passed	17.00 Credit	Course	Option Core Courses and Electives	Consult section 71.30.2 of the Undergraduate Calendar	