

**BS COMPUTER ENGINEERING Pre-requisites Chart**

Type	Course	Units	Class	Prerequisite	Grade
Core	Biol 10	3	Life Science	None	
Core	Chem 3A	4	Intro General Chemistry	Declared Major	
Tech Area	CSCI 144	4	Intro to Operating Systems	CSCI 112 or ECE 118	
Core	CSCI 150	3	Intro to Software Engineering	CSCI 41	
Tech Area	CSCI 156	3	Internetworking Systems and Protocols	CSCI 144	
Core	Math 75	4	Mathematical Analysis I (Calculus I)	ELM/Math 6	
Core	Phil 120	3	Contemporary Conflicts of Morals	GE Foundation and Area C	
Core	ECE 1	1	Intro to Electrical and Computer Engineering	None	
Core	ECE 85	3	Digital Logic Design	None	
Core	ECE 85L	1	Digital Logic Design Lab	ECE 85 (Concurrent)	
Core	ECE 90	3	Principles of Electrical Circuits	Phys 4B, Math 77 (Conc.)	
Core	ECE 90L	1	Principles of Electrical Circuits Lab	ECE 90 (Concurrent or Pre)	
Core	ECE 106	3	Switching Theory and Logical Design	ECE 85	
Core	ECE 107	3	Digital Signal Processing	ECE 71 <sup>†</sup> , 115 or 118, 124	
Tech Area	ECE 114	3	Physics Electronics	Phys 4C, ECE 128 (Conc.)	
Core	ECE 115	3	Computer Organization	ECE 71 <sup>†</sup> , 85	
Core	ECE 118	3	Microprocessor Architecture and Programming	ECE 71 <sup>†</sup> , 85	
Core	ECE 120L	1	Computer Systems Lab	ECE 118	
Core	ECE 124	3	Signal and Systems	ECE 71 <sup>†</sup> , 90, Math 81	
Core	ECE 125	3	Random Signals and Stochastic System Analysis	ECE 124	
Core	ECE 128	3	Electronics I	ECE 90	
Core	ECE 128L	1	Electronics I Lab	ECE 90L, 128 (Conc.)	
Tech Area	ECE 132	3	Design of Digital Systems	ECE 115, 118	
Tech Area	ECE 134	3	Analog and Digital Communication Engineering	ECE 124	
Tech Area	ECE 135	3	Wireless Communications Systems	ECE 125, 134	
Tech Area	ECE 138	3	Electronics II	ECE 102, 124, 128	
Tech Area	ECE 138L	1	Electronics II Lab	ECE 128L, 138 (Conc.)	
Tech Area	ECE 140	3	VLSI System Design	ECE(118 or 115), 128	
Tech Area	ECE 146	3	Computer Networking and Distributed Processing	ECE 118 <sup>††</sup> , 125 <sup>†††</sup>	
Core	ECE 148	3	Analysis and Design of Digital Circuits	ECE 85, 128	
Tech Area	ECE 155	3	Control Systems	ECE 124	
Tech Area	ECE 172	3	Sequential Machine and Automata Theory	ECE 106	
Tech Area	ECE 173	3	Robotics Fundamentals	Math 81, ECE 118, ECE 128 (or conc)	
Core	ECE 174	3	Advanced Computer Architecture	ECE 115 or 118	
Core	ECE 176	3	Computer-Aided Engineering in Digital Design	ECE 120L (Conc.)	
Core	ECE 186A	1	Senior Design I	Instructor Permission	
Core	ECE 186B	3	Senior Design II	ECE 186A	

\*All core classes required

\*Three technical area courses required

\*Econ 40 or 50 required

\*Phil 1 or 10 required

\*PLSI 120 or BA 104 required

\*Total 128units (GE not listed)

\*Additional Requirements: CSCI 40, 41, Math 76, 77, 81 (or ENGR 101), Phys 4A, 4B, 4BL, 4C

<sup>†</sup> CSCI 40 can also be used as a prerequisite in lieu of ECE 71

<sup>††</sup> CSCI 113 can also be used as a prerequisite in lieu of ECE 118

<sup>†††</sup> CSCI 60 can also be used as a prerequisite in lieu of ECE 125

(This sheet is for informational purposes only. More details can be found in the University Catalog and by consulting your advisor.)