

**Electrical and Computer Engineering  
Standing Prerequisites**

Course Number	Units	Quarter Offered	Title	Prerequisites
MAT 21A	4	F W S	Calculus	Required score on Math Placement Exam
MAT 21B	4	F W S	Calculus	MAT 21A (C- or better)
MAT 21C	4	F W S	Calculus	MAT 21B (C- or better)
MAT 21D	4	F W S	Calculus	MAT 21C (C- or better)
MAT 22A	3	F W S	Linear Algebra	MAT 21C (C- or better), ENG 6 or MAT 22AL (may be taken concurrently)
MAT 22AL	1	F W S	Linear Algebra Computer Lab	MAT 21C
MAT 22B	3	F W S	Differential Equations	MAT 22A (C- or better)
PHY 9A	5	F S	Classical Physics	MAT 21B
PHY 9B	5	F W	Classical Physics	PHY 9A, MAT 21C, MAT 21D (may be taken concurrently)
PHY 9C	5	W S	Classical Physics	PHY 9B, MAT 21D, MAT 22A (may be taken concurrently)
PHY 9D	4	F S	Modern Physics	PHY 9C, MAT 22A, MAT 22B recommended(may be taken concurrently)
CHE 2A	5	F W	General Chemistry	Required score on Chem & Math Placement Exam
ECS 20	4	F W S	Discrete Mathematics	MAT 21A with C- or better
ECS 30	4	F W S	Intro to Programming & Prob Solving	MAT 16A or 21A (may be taken concurrently)
ECS 40	4	F W S	Intro to Software Development	ECS 30 with C- or better
ECS 60	4	F W S	Data Structures	ECS 40 with C- or better
ECS 122A	4	F W S	Algorithm Design & Analysis	ECS 20, 60
ECS 150	4	F W S	Operating Systems & Systems Prog	ECS 40, 50 or EEC 170
ENG 6	4	F W S	Engineering Problem Solving	MAT 16A or 21A (C- or better), MAT 16B or 21B (C- or better) may be taken concurrently
ENG 17	4	F S	Circuits I	PHY 9C or PHY 9HD, MAT 22A, MAT 22B (may be taken concurrently); C- or better
ENG 100	3	F W S	Electronic Circuits and Systems	ENG 17 (C- or better)
EEC 1	1	F	Introduction to Electrical and Computer Engineering	-
EEC 10	3	W S	Intro Digital & Analog Systems	ECS 30, PHY 9C or PHY 9HD (may be taken concurrently)
EEC 100	5	F W	Circuits II	ENG 17 (C- or better)
EEC 110A	4	W S	Electronic Circuits I	EEC 100,140A (may be taken concurrently)
EEC 110B	4	S	Electronic Circuits II	EEC 110A
EEC 112	4	W	Communication Electronic	EEC 110A, 150A
EEC 116	4	F	VLSI Design	EEC 110A
EEC 118	4	S	Digital Integrated Circuits	EEC 110A, 180A
EEC 119A	3	W	Intregrated Circuit Design Project I	EEC 116 or 118
EEC 119B	3	S	Intregrated Circuit Design Project II	EEC 119A

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EEC 130A	4	F W	Introductory Electromagnetics I	MAT 21D, PHY 9C or PHY 9 HD, ENG 17
EEC 130B	4	S	Introductory Electromagnetics II	EEC 130A
EEC 132A	5	F	RF and Microwaves in Wireless Communications I	EEC 110A, 130B
EEC 132B	5	W	RF and Microwaves in Wireless Communications II	EEC 132A
EEC 132C	5	S	RF and Microwaves in Wireless Communications III	EEC 132B
EEC 133	4	F	Electromagnetic Radiation and Antenna	EEC 130B
EEC 134A	3	F	RF and Microwave Design Project I	EEC 130B or 110B or 150A
EEC 134B	3	W	RF and Microwave Design Project II	EEC 134A
EEC 135	4	W	Optical Communications I: Fibers	EEC 130B
EEC 136A	3	F	Electronic Design Project I	ECS 30, EEC 100, 180A, and either EEC 110B, 157A (concurrent) or 180B
EEC 136B	3	W	Electronic Design Project II	EEC 136A
EEC 140A	4	F W	Principles of Device Physics I	ENG 17, PHY 9D or PHY 9HE
EEC 140B	4	S	Principles of Device Physics II	EEC 140A
EEC 145	4	W	Electronic Materials	EEC 140A
EEC 146A	3	F	Integrated Circuits Fabrication	EEC 140A
EEC 146B	3	W	Advanced Integrated Circuits Fabrication	EEC 146A
EEC 150A	4	W S	Introduction to Signals and Systems I	EEC 100, ENG 6 or MAT 22AL (may be taken concurrently)
EEC 150B	4	F	Introduction to Signals and Systems II	EEC 150A
EEC 152	4	S	Digital Signal Processing	EEC 150B
EEC 157A	4	F	Control Systems I	EEC 100
EEC 157B	4	W	Control Systems II	EEC 157A
EEC 160	4	F	Signal Analysis and Communications	EEC 150A
EEC 161	4	F S	Probabilistic Analysis of Electrical & Computer Systems	EEC 100, ENG 6 or MAT 22AL
EEC 165	4	W	Statistical and Digital Communication	EEC 160, 161
EEC 170	4	F W	Introduction to Computer Architecture	EEC 180A, ECS 30
EEC 171	4	S	Parallel Computer Architectures	EEC 170 or ECS 154B
EEC 172	4	W S	Embedded Systems	EEC 100, EEC 170 or ECS 154A
EEC 173A	4	F W S	Computer Networks	ECS 60, ECS 132 or EEC 161 or MAT 135A or STA 120 or STA 32 or STA 131A
EEC 173B	4	S	Design Projects in Communication Networks	EEC 173A or ECS 152A
EEC 180A	5	F W	Digital Systems I	PHY 9C or PHY 9HD
EEC 180B	5	W S	Digital Systems II	EEC 180A
EEC 181A	3	W	Digital Systems Design Project I	EEC 180B, EEC 170

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EEC 181B	3	S	Digital Systems Design Project II	EEC 181A
EEC 183	5	W	Testing and Verification of Digital Systems	EEC 170, 180B
EEC 195A	3	F	Autonomous Vehicle Project I	ECS 30, EEC 100, 180A; and either EEC 110B or 157A (concurrent) or 180B or ECS 60
EEC 195B	3	W	Autonomous Vehicle Project II	EEC 195A
EEC 196	1	F	Issues in Engineering Design	Senior standing in ECE