

3 ECE Program Information

The following tables detail a typical sequence for the core and elective courses requirements for the electrical engineering and computer engineering options:

3.1 Electrical Engineering Curriculum: (Class of 2023+)

Freshman Year							
01:160:159	General Chemistry for Engineers		3	14:440:127	Intro to Computers for Engineers		3
01:160:171	Introduction to Experimentation		1	14:440:221	Engineering Mechanics		3
01:355:101	Expository Writing		3	01:640:152	Calculus II		4
14:440:100	Engineering Orientation		1	01:750:124	Analytical Physics IB		2
01:640:151	Calculus I Math/Physics		4	__:__:__	Hum/Soc elective		3
01:750:123	Analytical Physics IA		2				
__:__:__	Hum/Soc elective		3				
Total Credits			17	Total Credits			15
Sophomore Year							
14:332:221	Principles of Elec. Eng. I	M	3	14:332:222	Principles of Elec. Eng. II	M	3
14:332:223	Principles of EE I Lab	M	1	14:332:224	Principles of EE II Lab	M	1
14:332:231	Digital Logic Design	M	3	14:332:226	Probability & Random Proc.	M	3
14:332:233	Digital Logic Design Lab	M	1	14:332:252	Programming Method. I	M	4
01:640:251	Multivariable Calculus		4	01:640:244	Differential Equations		4
01:750:227	Analytical Physics IIA		3				
01:750:229	Analytical Physics II Lab		1				
Total Credits			16	Total Credits			15
Junior Year							
14:332:331	Computer Arch.	M	3	14:332:312	Discrete Mathematics*	M	3
14:332:333	Computer Arch. Lab	M	1	14:332:346	Digital Signal Processing	M	3
14:332:345	Linear Systems & Signals	M	3	14:332:348	Digital Signal Proc. Lab	M	1
14:332:361	Electronic Devices	M	3	14:332:393	Professionalism/Ethics	M	1
14:332:363	Electronic Devices Lab	M	1	14:332:366	Digital Electronics	M	3
__:__:__	Hum/Soc elective (200+)		3	14:332:368	Digital Electronics Lab	M	1
14:332:__	Restricted Electrical elective	M	3	14:540:343	Engineering Econ	M	3
Total Credits			17	Total Credits			15
Senior Year							
14:332:449	Intro to Capstone Design	M	1	14:332:448	Capstone Design in ECE	M	3
14:332:__	Electrical elective	M	3	14:332:__	Electrical elective	M	3
14:332:__	Electrical elective	M	3	__:__:__	Technical elective	M	3
__:__:__	Technical elective	M	3	__:__:__	General elective		3
__:__:__	Hum/Soc elective (200+)		3				
__:__:__	Science Math Eng elective	M	3				
Total Credits			16	Total Credits			12
Total degree credits: 123							

3.2 Computer Engineering Curriculum: (Class of 2023+)

Freshman Year							
01:160:159	General Chemistry for Engineers		3	14:440:127	Intro to Computers for Engineers		3
01:160:171	Introduction to Experimentation		1	14:440:221	Engineering Mechanics		3
01:355:101	Expository Writing		3	01:640:152	Calculus II		4
14:440:100	Engineering Orientation		1	01:750:124	Analytical Physics IB		2
01:640:151	Calculus I Math/Physics		4	__ : __ : __	Hum/Soc elective		3
01:750:123	Analytical Physics IA		2				
__ : __ : __	Hum/Soc elective		3				
Total Credits			17	Total Credits			15
Sophomore Year							
14:332:221	Principles of Elec. Eng. I	M	3	14:332:222	Principles of Elec. Eng. II	M	3
14:332:223	Principles of EE I Lab	M	1	14:332:224	Principles of EE II Lab	M	1
14:332:231	Digital Logic Design	M	3	14:332:226	Probability & Random Proc.	M	3
14:332:233	Digital Logic Design Lab	M	1	14:332:252	Programming Method. I	M	4
01:640:251	Multivariable Calculus		4	01:640:244	Differential Equations		4
01:750:227	Analytical Physics IIA		3				
01:750:229	Analytical Physics II Lab		1				
Total Credits			16	Total Credits			15
Junior Year							
14:332:331	Computer Arch.	M	3	14:332:312	Discrete Mathematics*	M	3
14:332:333	Computer Arch. Lab	M	1	14:332:452	Software Engineering	M	3
14:332:345	Linear Systems & Signals	M	3	14:332:434	Intro to Comp. Systems	M	3
14:332:351	Programming Method. II	M	3	14:332:393	Professionalism/Ethics	M	1
14:332: __	Restricted Comp. elective	M	3	14:540:343	Engineering Econ	M	3
__ : __ : __	Hum/Soc elective (200+)	M	3	__ : __ : __	Technical elective	M	3
Total Credits			16	Total Credits			16
Senior Year							
14:332:437	Digital System Design	M	3	14:332:448	Capstone Design in ECE	M	3
14:332:449	Intro to Capstone Design	M	1	__ : __ : __	Computer elective	M	3
__ : __ : __	Computer elective	M	3	__ : __ : __	Technical elective	M	3
__ : __ : __	Computer elective	M	3	__ : __ : __	General elective		3
__ : __ : __	Hum/Soc elective (200+)		3				
__ : __ : __	Science Math Eng elective	M	3				
Total Credits			16	Total Credits			12
Total degree credits: 123							

* Note that 14:332:312 Discrete Mathematics is listed in the Spring semester of a student's Junior year. This is where Discrete Mathematics has historically been placed in the sequence. However, recent changes to the pre-requisites for Discrete Mathematics allow students to take this class as early as the Fall of their Sophomore year.