Computer Engineering   2026-2027
Minor
Degree requirements - 23 credits

REQUIRED COURSES - 6-8 credits[1]

Course Number	Course Title	Credits	Prerequisites	Terms
ECE 102 *OR*	Digital Circuit Logic	4		n/a
ECE 252	Introduction to Digital Circuits	3		F,S
ECE 251 *OR*	Introduction to Microprocessors and IoT	4	n/a	n/a
ECE 253 *OR*	Microcontrollers and C or Internet-of-Things	3	ECE102 with a C or higher or ECE252 with a C or higher	F,S
CS 250 *OR*	Computer Systems Foundations	4	CS162 with a C or higher or CS163 with a C or higher or CS164 with a C or higher	F,S
CS 270	Computer Organization	4	n/a	n/a

SELECT 15-17 CREDITS[1] - 12 credits of upper division coursework required (300, 400 or 500 level coursework)

Course Number	Course Title	Credits	Prerequisites	Terms
CS 356	System Security	3	CS214 with a C or higher or CS253 with a C or higher or CS370 with a C or higher	F,S
ECE 202 *OR*	Circuit Theory Applications	4	n/a	n/a
ECE 206	Analog Circuits II	3	ECE103 with a C or higher or ECE205 with a C or higher; MATH161 with a C or higher	S,SS
ECE 340	Electromagnetics for Computer Engineering	3	ECE202[3] with a C or higher or ECE206 with a C or higher; MATH161 with a C or higher	S
ECE 445	Digital Logic Synthesis	3	ECE102 with a C or higher or ECE252 with a C or higher	S
ECE 450/451	Digital System Design/Lab	4	ECE102 with a C or higher or ECE252 with a C or higher; ECE202 with a C or higher or ECE206 with a C or higher	F
ECE 452	Computer Organization and Architecture	3	ECE251 with a C or higher or ECE253 with a C or higher or CS250 with a C or higher or CS270 with a C or higher	S
ECE 455	Introduction to Robot Programming/Simulation	3	CS152 with a C or higher or CS162 with a C or higher or CS163 with a C or higher or CS164 with a C or higher	F
ECE 495A[4,5]	Independent Study	1-3		F,S,SS
ECE 495B[4,5]	Independent Study: Open Option	1		F,S
ECE 495C[4,5]	Independent Study: Vertically Integrated Projects	1		F,S
ECE 519	Network Centric Systems	3	CS165 with a C or higher; ECE303[6] with a C or higher or ECE 312 with a C or higher or ECE421 with a C or higher or ECE456 with a C or higher or MATH369 with a C or higher	S, even
ECE/CS 528	Embedded Systems and Machine Learning	4	ECE251 with a C or higher or ECE253 with a C or higher or CS250 with a C or higher or CS270 with a C or higher	F
ECE 544	Silicon Photonics in Computing Systems	3	PH141; ECE303 with a C or higher or STAT301 with a C or higher or STAT315 with a C or higher	F
ECE 554	Computer Architecture	3	ECE452 or CS470	S, odd
ECE/CS 561	Hardware/Software Design of Embedded Systems	4	ECE251 with a C or higher or ECE253 with a C or higher or ECE452 or CS250 with a C or highe or CS270 with a C or highe or CS470	S, even
ECE 571	VLSI System Design I/Lab	4	ECE451	S
ECE 564	Semiconductor Memory	3	ECE202 with a C or higher or ECE206 with a C or higher	S

[1] A minimum of 12 credits in the minor must be ECE prefix courses

[2] PH122 may be substituted for PH142

[3] ECE204 may be substituted for ECE202

[4] A total 3 credits of Independent Study may apply toward total degree requirements. This includes credit awarded for ECE495A, ECE495B, and ECE495C combined.

[5] Must be in a Computer Engineering related topic and be approved by a Computer Engineering faculty. Please see your ECE Academic Advisor.

[6] STAT301 or STAT315 may be substituted for ECE/STAT303