

COMPUTER ENGINEERING



Catalog Term: Fall 2024

Last updated: 04/2024

15+ FRESHMAN	15+
FALL	SPRING
ENGL 101 (3) College English I Grade C- or better	ENGL 102 (3) College English II Prereq: ENGL 101 Grade C- or better
MATH 242 (5) Calculus I Prereq: See Course Catalog Grade C or better	MATH 243 (5) Calculus II Prereq: MATH 242 Grade C or better
First Year Seminar in FA/HU/SB (3) Note b	General Education FA/SB (3) Note c
ECE 194 (4) Introduction to Digital Design Prereq: MATH 111 or equivalent	CS 211 (4) Intro to Programming Prereq: MATH 111 or equivalent
ECE 115 (0) ECE Freshman Seminar Recommended but not required	

17+ SOPHOMORE	16+
FALL	SPRING
COMM 111 (3) Public Speaking Grade C-or better	MATH 555 (3) Differential Equations I Prereq: MATH 243 Grade C or better
MATH 321/CS 321 (3) Discrete Structures I Prereq: MATH 242 or equivalent Grade C or better	PHYS 314 (4) Physics for Scientist II Prereq: MATH 243 and PHYS 313 Grade C or better
PHYS 313 (4) Physics for Scientist I Coreq: MATH 243 Grade C or better	ECE 284 (3) Circuits II Prereq: ECE 282 and MATH 243 Grades C- or better Coreq: MATH 555
ECE 238 (3) Assembly Language Programing Prereq: CS 211 Grade C- or better	ECE 285 L (1) Programming w/ MATLAB for EECS Prereq: CS 211 Coreq: ECE 284
ECE 282 (4) Circuits I Coreq: MATH 243	CS 311 (4) Object-Oriented Programming Prereq: CS 211 Grade C- or better
	PHYS 316 (1) University Physics Lab II Coreq: PHYS 314

15+ JUNIOR	15+
FALL	SPRING
ECE 338 (4) FPGA-Based System Design Prereq: ECE 194 and CS 211 Grades C- or better	PHIL 354 (3) Ethics and Computers (HU) Prereq: Junior Standing or Dept. Consent Note d
CS 400 (4) Data Structures Prereq: CS 311 Grade C- or better	IME 254 (3) Engineering Probability & Statistics I Prereq: MATH 243 or MATH 252 Grades C or better
ECE 492 (4) Electronic Circuits I Coreq: ECE 284 and ECE 285L	ECE 394 (3) Introduction to Computer Architecture Prereq: ECE 194 and CS 211 Grades C- or better
General Education SB/FA (3) Note c	CS 540 (3) Operating Systems Prereq: ECE 238 and CS 311 Grades C- or better
Engineer + Requirement (1 of 3)	MATH 511 (3) Linear Algebra Prereq: MATH 243 Grade C or better
	Engineer + Requirement (2 of 3)

15+ SENIOR	14+
FALL	SPRING
ME 398 (3) Thermodynamics I Prereq: Math 243 and PHYS 313 Grades C or better	IME 255 (3) Engineering Economy Coreq: MATH 242 or 251
CS 594 (4) Microprocessor Based System Design OFFERED FALL ONLY Prereq: ECE 238 and ECE 394 Grades C- or better	CS 464 (3) Computer Networks OFFERED SPRING ONLY Prereq: CS311 and IME 254 Grades C- or better
Technical Elective (3) Note a	Technical Elective (3) Note a
Technical Elective (3) Note a	Technical Elective (2) Note a
ECE 585 (2) Senior Design Project I Prereq: Senior standing, CS 480 or ECE 492 Coreq: PHIL 354 or 385 Grades C- or better in each	ECE 595 (2) Senior Design Project II Prereq: ECE 585 Grade C- or better
Engineer + Requirement (3 of 3)	

NOTES: (a) At least 9 of the 11 Technical Elective hours **must be** ECE. Up to 2 credit hours of Co-op courses can be used as **non-departmental** technical electives. (b) First Year Seminar **must not** be from MS. (c) One of the General Education courses listed must be from FA, the other from SB; both must be from an approved list of courses. (d) PHIL 354 fulfills HU requirement. All prerequisites for ECE and CS courses must be passed with a C- or better.

Legend: General Education: FA= Fine Arts, SB = Social and Behavioral Sciences, HU = Humanities, MS = Mathematics and Natural Sciences.
Prereq = Prerequisite, Coreq = Corequisite.