

ELECTRICAL ENGINEERING



Catalog Term: Fall 2025

Last updated: 06/2025

15 FRESHMAN	16
FALL	SPRING
ENGL 101 (3) College English I Grade of C- or better	ENGL 102 (3) College English II Grade of C- or better 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
ECE 194 (4) Introduction to Digital Design Prereq: MATH 111 or equivalent	PHYS 313 (4) Physics for Scientist I Coreq: MATH 243 Grade C or better
First Year Seminar (3) *1st year students must take FYS	CS 211 (4) Introduction to Programming Prereq: MATH 111 or equivalent
ECE 115 (0) ECE Freshman Seminar	

14 SOPHOMORE	15
FALL	SPRING
COMM 111 (3) Public Speaking Grade C- or better	MATH 344 (3) Calculus III Prereq: MATH 243 Grade C or better
PHYS 314 (4) Physics for Scientist II Prereq: MATH 243 and PHYS 313 Grades C or better	MATH 555 (3) Differential Equations I Prereq: MATH 243 Grade C or better
IME 255 (3) Engineering Economy Prereq: MATH 242 Grades C or better	CHEM 211 (5) General Chemistry I Prereq: CHEM 101, 103 or 110
ECE 282 (4) Circuits I Prereq/Coreq: MATH 243 Grade C- or better	ECE 284 (3) Circuits II Prereq: ECE 282 and MATH 243 Coreq: MATH 555 Grades C- or better
	ECE 285 L (1) Programming w/ MATLAB for ECE/CE Prereq: CS 211 Grade C- or better Coreq: ECE 284

16 JUNIOR	17
FALL	SPRING
General Education (3) In Social & Behavior Sciences	PHIL 385 (3) Engineering Ethics (HU) Prereq: Junior Standing. Note d
ECE 383 (3) Signals and Systems Prereq: ECE 284, ECE 285L & MATH 555 Grades C- or better	ECE 493 (4) Electronic Circuits II or Tech Elec SPRING ONLY Prereq: ECE 492 Grade C- or better
ECE 463 (3) Applied Engineering Electromagnetics FALL ONLY Prereq: PHYS 314, MATH 344, and CHEM 211 Grade C- or better	ECE 488 (4) Electric Machines & Transformers SPRING ONLY Prereq: ECE 282 Grade C- or better
MATH 511 (3) Linear Algebra Prereq: MATH 243 Grade C or better	ECE 684 (3) Introductory Control System Concepts SPRING ONLY Prereq: ECE 282 & MATH 555 or ECE 383 Grades C- or better
ECE 492 (4) Electronic Circuits I Prereq/coreq: ECE 284, ECE 285L and PHYS 314 Grade C- or better	General Education (3) In Arts or Humanities (not PHIL)
Engineer + Requirement (1 of 3)	Engineer + Requirement (2 of 3)

15 SENIOR	13
FALL	SPRING
Technical Elective (3) Note a	Technical Elective (3) Note a
IME 254 (3) Engineering Probability & Statistics I Prereq: MATH 243 Grade C or better	Technical Elective (1) Note a
ECE 688 (4) Power Electronics or Tech Elec FALL ONLY Prereq: ECE 383, 488, and 492 Grades C- or better Note e	ECE 586 (4) Introduction to Communication Sys SPRING ONLY Prereq: ECE 383 and IME 254 Grades C- or better
General Education (3) In Social & Behavior Sciences	ME 398 (3) Thermodynamics I Prereq: MATH 243 and PHYS 313 Grades of C or better
ECE 585 (2) Senior Design Project I Prereq: Senior standing, ECE 492, and Prereq/Coreq: PHIL 385 Grades C- or better	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 or CS. Up to 2 credit hours of Co-op courses can be used as **non-departmental** technical electives. (b) CHEM 211 is a Natural & Physical Sciences Discipline Area Gen Ed - Bucket # 4. (c) MATH 243 and PHIL 385 are Institutionally Designated Area Gen Eds - Bucket # 7. (d) PHIL 385 also fulfills HU requirement. (e) Students are required to take ECE 493 or ECE 688. If taking both, the second will count towards tech. elective hours. All prerequisites for ECE 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.