

# ELECTRICAL ENGINEERING



Catalog Term: Fall 2022

Last updated: 02/2022

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		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 in FA/HU/SB (3)  Note b		CS 211 (4) Introduction to Programming  Prereq: MATH 111 or equivalent	
ECE 115 (0) ECE Freshman Seminar (Recommended but not required)			

17 SOPHOMORE		15	
FALL		SPRING	
COMM 111 (3) Public Speaking  Grade C- or better		General Education FA/SB  Note c	
MATH 344 (3) Calculus III  Prereq: Math 243 Grade C or better		MATH 555 (3) Differential Equations I  Prereq: MATH 243 Grade C or better or Departmental Consent	
PHYS 314 (4) Physics for Scientist II  Prereq: MATH 243 and PHYS 313 Grades C or better		CHEM 211 (5) General Chemistry I  Prereq: CHEM 101, 103 or 110 Coreq: MATH 111	
IME 255 (3) Engineering Economy  Coreq: MATH 242 or 251		ECE 284 (3) Circuits II  Prereq: ECE 282 and MATH 243 Coreq: MATH 555 Grades C- or better	
ECE 282 (4) Circuits I  Coreq: MATH 243		ECE 285 L (1) Programming w/ MATLAB for ECE/CE  Prereq: CS 211 Grade C- or better Coreq: ECE 284	

16 JUNIOR		14	
FALL		SPRING	
General Education SB/FA  Note c		PHIL 385 (3) Engineering Ethics  Prereq: Junior or Senior standing	
ECE 383 (3) Signals and Systems Prereq: ECE 284, ECE 285L & MATH 555 Grades C- or better		ECE 493 (4) Electronic Circuits II or Technical Elec <b>OFFERED SPRING ONLY</b> Prereq: ECE 492 Grade C- or better Note e	
ECE 463 (3) Applied Engineering Electromagnetics <b>OFFERED FALL ONLY</b> Prereq: PHYS 314 and MATH 344 Grade C- or better		ECE 488 (4) Electric Machines & Transformers <b>OFFERED SPRING ONLY</b> 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 <b>OFFERED SPRING ONLY</b> Prereq: ECE 282 & MATH 555 or ECE 383 Grades C- or better	
ECE 492 (4) Electronic Circuits I  Coreq: ECE 284 and ECE 285L		Engineer + Requirement (2 of 3)	
Engineer + Requirement (1 of 3)			

15 SENIOR		16	
FALL		SPRING	
Technical Elective (3)  Note a		Technical Elective (3)  Note a	
IME 254 (3) Engineering Probability & Statistics I  Prereq: MATH 243 or 252 Grade C or better		Technical Elective (4)  Note a	
ECE 688 (4) Power Electronics or Technical Elec <b>OFFERED FALL ONLY</b> Prereq: ECE 383, 488 and 492 Grades C- or better Note e		ECE 586 (4) Introduction to Communication Sys <b>OFFERED SPRING ONLY</b> Prereq: ECE 383 and IME 254 Grades C- or better	
AE 223 (3) Statics  Prereq: PHYS 313 Coreq: MATH 243		ME 398 (3) Thermodynamics I  Prereq: MATH 243 and PHYS 313 Grades of C or better	
Senior Design Project I ECE 585 (2) Prereq: Senior standing, CS 480 or ECE 492 Coreq: PHIL 354 or 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 12 of the 14 Technical Elective hours **must be** from the EECS Dept. 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 385 fulfills HU requirement. (e) Students are required to take EE 493 or EE 688. If taking both, the second will count towards tech. elective hours. All prerequisites for EECS 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.