

Electrical Engineering Curriculum

Fall 2023 – Spring 2024

Math 20100 Calculus I Pre: Math 19500 (C min.) 4 cr.	Chem 10301 General Chemistry I Pre: Math 19500 (C min.) 4 cr.	Engl 11000 ⁷ Freshman Composition 3 cr.	Engr 10100 ⁷ Engineering Design Pre/Co: Math 19500 (C min.) 1 cr.	Liberal Arts ⁴ 3 cr.	Liberal Arts ⁴ 3 cr.
Math 21200 Calculus II Pre: Math 20100 (C min.) 4 cr.	Phys 20700 University Physics I Pre: Math 20200 4 cr.		CSc 10200 Introduction to Computing Pre: Math 19500 (C min.) or Pre/Co: Math 20100 (C min.) 3 cr.	Engl 21007 Writing for Engineering Pre: Eng 11000 or FIQWS 3 cr.	Liberal Arts ⁴ 3 cr.
Math 21300 Calculus III Pre: Math 21200 (C min.) 4 cr.	Phys 20800 University Physics II Pre: Phys 20700 Pre/Co: Math 20300 4 cr.	Engr 20400 Electrical Circuits Pre/Co: Phys 20800 (C min.), Math 20300 (C min.) or Math 21300 (C min.) 3 cr.		EE 21000 Switching Systems Pre/Co: Math 20200 (C min.) or Math 21200 (C min.) 3 cr.	Engr 10300 Analysis Tools for Engineers Pre: Phys 20700 (C min.) Co-Req: Engr 20400 1 cr.
Math 39100 Differential Equations Pre: Math 20300 3 cr.	Math 34600 Lin. Algeb & Vector Anal. Pre: Math 20300 (C min.) or Math 21300 (C min.) 4 cr.	EE 20500 Linear Systems I Pre: Engr 10300, Engr 20400 Pre/Co: Math 39100 (C min.) 3 cr.	EE 22100 EE Lab I Pre: EE 21000 & Engr 20400 Pre/Co: Engr 10300 1 cr.	EE 24100 Electronics I Pre: Phys 20800 (C min.) Pre/Co: EE 20500 & EE 21000 3 cr.	EE 31100 Probability & Random Proc. Pre: Math 20300 (C min.) or Math 21300 (C min.) 3 cr.
EE 30600 Linear Systems II Pre: EE 20500 3 cr.	Phys 32300 Quantum Mech for Engr Pre: Phys 20800, Math 39100 & Math 39200 3 cr.	EE 32200 EE Lab II Pre: EE 22100 & EE 24100 1 cr.	EE 33000 Electromagnetics Pre: Math 39100 (C min.), Math 39204 (C min.) or Math 34600 (C min.) & Phys 20800 (C min.) 3 cr.	EE Restricted Elective See the list 3 cr.	EE 25900 Programming for EE Pre: CSc 10200 & Engr 10300 Pre/Co: Math 39100 (C min.) & Math 39204 (C min.) or Math 34600 (C min.) 4 cr.
EE 31200 Communication Theory Pre: EE 31100, EE 20500 3 cr.	EE 42500 Computer Engineering Lab Pre: EE 32200 Pre/Co: EE 34400 or 44400 or [CSc 21000 & CSc 34200] 1 cr.	Lecture Elective See the list 3 cr.	EE 33900 Semiconductor Mat'ls & Devices Pre: EE 33000, Phys 32300 3 cr.	EE 34400 (formerly called 44400) Digital Computer Systems Pre: EE 21000 Pre/Co: EE 25900 3 cr.	Lecture Elective See the list 3 cr.
Engr 27600 Engineering Economics Pre: Math 20100 (C min.) 3 cr.	Lecture Elective See the list 3 cr.	EE Restricted Elective See the list 3 cr.	Liberal Arts ⁴ 3 cr.	Liberal Arts ⁴ (20000 or higher) 3 cr.	EE 59866 Senior Design Project I Pre: EE 25900, EE 30600, EE 31200, EE 32200, EE 33900, EE 34400, EE 42500 3 cr.
Lecture Electives Chem 10401: Gen. Chem II (C min) CSc 31800: Internet Programming CSc 34200: Computer Organization Math 32800: Num Analysis Engr 10600: Appl Algebra (GPA 2.75) Engr 11100: Engr Anal (GPA 2.75) Engr 11200: Complex Var (GPA 2.75) Engr 23000: Thermodynamics Engr 30000: Soc Issues of Biomed Engr 30100: Intro to Sat Remote Sens EE 33300: Antennas & Fiber-Optics EE 34200: Electronics II EE 35700: Electric Power Engr EE 35900: AI Solns in Engr EE 37100: Control & Feedback Sys. EE 43800: Mgt Concepts for Engr EE 44100: Solid State Devices EE 45000: Microwave Networks EE 45100: Comm Electronics 6 cr.		(2 courses) – See Note 5 below EE 45200: Fiber Optic Comm EE 45300: Digital Signal Proc EE 45400: Phys Electronics EE 45500: Elem. of Power System EE 45600: Elements of Ctrl Theory EE 45700: Digital Integ Ckt EE 45800: Intro to Lasers EE 45900: Microproc EE 46000: Data & Computer Comm EE 46200: Photonic Engr EE 46300: Wireless Comm EE 46400: VLSI Design EE 47000: Intro to Cyber Security Des EE 47100: Intro to Digital Image Proc. EE 47200: Digital Design Using Verilog EE 51000: Indep Study BME 50100: Cell & Tissue Mech BME 50200: Cell & Tissue Trans BME 50300: Cell & Tissue Biomat BME 50500: Image & Signal Proc. Phys 45200: Adv Optics	Lab Elective (2 Course) CSc 34300: Comp. Sys. Dsgn (co: CSc34200) EE 32300 : EE lab III (pre: EE 322 & EE 342) EE 42100: LAN Lab (pre/co: EE 46000) EE 42200: Comm Sys Design Lab (pre: EE 22100, Co: EE 31200) EE 42300: Microwave (pre/co: EE 45000) EE 42600: Control Lab (pre: EE 37100) EE 42700: Digital Sys.(pre:EE 444 or CSc 210 & CSc 342) EE 42800: Photonics Lab (pre/co: EE 33900/EE331) EE 42900: Solid State (pre/co: EE 44100) 2 cr.	Lecture Elective See the list 3 cr.	EE 59867 Senior Design Project II Pre: EE 59866 3 cr.
EE Restricted Electives (As instructed above choose 2 of 4 courses listed below) EE 33300: Antennas & Fiber-Optics (Pre: EE 33000) EE 34200: Electronics II (Pre: EE 24100) EE 37100: Control & Feedback Sys. (Pre: EE205, Co: Math 39100 & Math 39200 (C min)) EE 44100: Solid State Devices (Pre: EE 33900)					

- The latest version of the curriculum sheet supersedes any curriculum and pre-/corequisite information in the Undergraduate Bulletin or online.**
- “C” Passing Grade Requirement:** Courses in shaded area (■) require a minimum passing grade of “C”.
- Skills tests:** Certain students may be required to pass CUNY Assessment Tests in one or more subjects within 1 or 2 years of admission.
- Liberal Arts electives:** EE students must take five approved courses and Engr. 27600 (Engineering Economics) for a total of 18 credits (six courses) of which at least 6 credits (two courses) must be at the 20000 level or higher. A list of approved courses is posted on the School of Engineering web site at cnycuny.edu/engineering/gen-ed and can be viewed at the Office of Undergraduate Affairs (ST-209) or the Office of Student Programs (ST-2M7).
 - Each course falls into one or more liberal arts *clusters*, specified in the list. The six courses must collectively occupy at least three clusters. The four clusters are: (f) Professional and Ethical Responsibilities, (g) Communication, (h) Global and Societal Context, and (j) Contemporary Issues.
 - Most students must also satisfy Pathways liberal arts requirements. See cnycuny.edu/engineering/pathways.
- Lecture Elective Requirements:** Total 6 courses (18 credits) with at least 3 courses (9 credits) from EE courses.
- Other Graduation Requirements:** Apply for graduation during registration for the last semester. Minimum GPA of 2.00. Minimum QPA of zero. Residency Requirement: 36 credits of 30000-level or higher Electrical Engineering courses taken at CCNY.
- Transfer students with credit for Math 20200** are considered too advanced for Engr 10100. They should take a 1-credit advanced EE lab instead. FIQWS 10026 fulfills the requirements for Engr 11000 and Engr 10100.
- Program Changes:** Substitution of other courses for required courses must be approved by the Chair of the Electrical Engineering Department (ST- 602), and the Associate Dean of the Office of Undergraduate Affairs (ST 209).
- ENGL 21007 (Writing for Engineering)** is a required course in the electrical engineering major instead of a General Education requirement.

Total Credits: 132