

## Electrical Engineering Curriculum Spring 2009

<b>Math 20100</b> Calculus I Pre: Math 19500 (min. C) 3 cr.	<b>General Chemistry</b> Chem 10301 Pre: Math 19500 4cr.	<b>Engr 10100</b> <sup>7</sup> Engineering Design I Pre/Co: Math 19500 (min. C) 1 cr.	<b>Engl 11000</b> Freshman Composition 3 cr.	<b>Liberal Arts</b> <sup>4</sup> (10000 or higher) 3 cr.	
<b>Math 20200</b> Calculus II Pre: Math 20100 (min. C) 3 cr.	<b>Phys 20700</b> General Physics I Pre/Co: Math 20200 4 cr.	<b>Engr 10300</b> Analysis Tools for Engineers Pre: Math 20100 (min. C) 2 cr.	<b>CSc 10200</b> Introduction to Computing Pre: Math 20100 (min. C) 3 cr.	<b>Engl 21007</b> Writing for Engineering Pre: Eng 11000 3 cr.	
<b>Math 20300</b> Calculus III Pre: Math 20200 (min. C) 4 cr.	<b>Phys 20800</b> General Physics II Pre: Phys 20700 Pre/Co: Math 20300 4 cr.	<b>Engr 20400</b> Electrical Circuits Pre/Co: Phys 20800 (min. C), Math 20300 (min. C) 3 cr.	<b>EE 21000</b> Switching Systems Pre: Math 20200 (min. C) 3 cr.	<b>Liberal Arts</b> <sup>4</sup> (10000 or higher) 3 cr.	
<b>Math 39100</b> Differential Equations Pre: Math 20300 3 cr.	<b>Math 39200</b> Lin. Algebr & Vector Anal. Pre: Math 20300 3 cr.	<b>EE 20500</b> Linear Systems I Pre: Engr 20400 Pre/Co: Engr 10300, Math 39100 (C min) 3 cr.	<b>EE 22100</b> EE Lab I Pre: EE 21000 & Engr 20400 Pre/Co: Engr 10300 1 cr.	<b>EE 24100</b> Electronics I Pre: Phys 20800 (min. C) Pre/Co: EE 20500 & EE 21000 3 cr.	
<b>EE 30600</b> Linear Systems II Pre: EE 20500 3 cr.	<b>Phys 32300</b> Quantum Mech for Engr Pre: Phys 20800, Math 39100 & Math 39200 3 cr.	<b>EE 32200</b> EE Lab II Pre: EE 22100 & EE 24100 1 cr.	<b>EE 33000</b> Electromagnetics Pre: Math 39100 (min. C), Math 39200 (min. C) & Phys 20800 (min. C) 3 cr.	<b>EE Restricted Elective</b> See the list below 3 cr.	
<b>EE 31200</b> Communication Theory Pre: EE 31100 3 cr.	<b>EE Lab Elective</b> See the list below 1 cr.	<b>Lecture Electives</b> See the list below 3 cr.	<b>EE 33900</b> Semiconductor Mat'ls & Devices Pre: EE 33000 3 cr.	<b>EE Restricted Elective</b> See the list below 3 cr.	
<b>Engr 27600</b> Engineering Economics Pre: Math 20100 (C min.) 3 cr.	<b>Lecture Electives</b> See the list below 3 cr.	<b>EE Restricted Elective</b> See the list below 3 cr.	<b>Liberal Arts</b> <sup>4</sup> (10000 or higher) 3 cr.	<b>Liberal Arts</b> <sup>4</sup> (20000 or higher) 3 cr.	
<b>Lecture Electives</b> Chem 10400: Gen. Chem II (min C) 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 37100: Control & Feedback Sys. EE 43800: Mgt Concepts for Engr EE 44100: Solid State Devices EE 44400: Digital Computer Sys. EE 45000: Microwave Networks 6 cr.		(2 courses) – See Note 5 below EE 45100: Comm Electronics 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: Introd to Lasers EE 45900: Microproc EE 46000: Computer Comm EE 46200: Photonic Engr  EE 46300: Wireless Comm EE 46400: VLSI Design 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	<b>Lab Elective (2 Course)</b> 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: Analog Comm (pre: EE 31200) EE 42300: Microwave (pre/co: EE 45000) EE 42500: Comp. Eng. (pre:EE 444 or Csc 210 & Csc 342) 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 33000/EE331) EE 42900: Solid State (pre/co: EE 44100)  2 cr.	<b>Lecture Elective (1 course)</b> See the list below 3 cr.	<b>EE 59866</b> Senior Design Project I Pre: EE 32200; Co: Any EE Lab Elective 3 cr.
		<b>EE Restricted Electives</b> (As instructed above choose 3 of 5 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) EE 44400: Digital Computer Sys. (Pre: EE 21000; Co: EE 25900)		<b>EE 59867</b> Senior Design Project II Pre: EE 598.66 3 cr.	

1. New freshmen engineering students are no longer required to take **NSS 10000: New Freshman Seminar** (0 cr.).
2. **"C" Passing Grade Requirement:** Courses in shaded area (■) require a minimum passing grade of "C".
3. **CUNY CPE, ACT & SKAT Requirements:** Students must pass the CUNY/ACT in Reading and Writing and CUNY Mathematics Skills Assessment Test (SKAT) before completing 61 credits. Students must pass the CUNY Proficiency Examination (CPE) before graduation.
4. **General Education / Liberal Arts Requirements:**  
**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. The six courses must satisfy at least three of the four approved general education clusters. Only courses in these four clusters are eligible: **Professional and Ethical Responsibilities Cluster** (Outcome f), **Communication Cluster** (outcome g), **Global and Societal Context Cluster** (outcome h), and **Contemporary Issues Cluster** (Outcome j). A list of approved courses is posted on the School of Engineering web site at <http://www.cuny.edu/engineering/genreq.html> and can be viewed at the Office of Undergraduate Affairs (ST-209) or the Office of Student Programs (ST-2M). This list is subject to periodic review and updates.
5. **Lecture Elective Requirements:** Total 6 courses (18 credits) with at least 3 courses (9 credits) from EE courses.
6. **Other Graduation Requirements:** Apply for graduation during registration for the last semester. Minimum GPA of 2.00. Minimum QPA of zero. Pass CUNY Proficiency Exam (CPE). Residency Requirement: 36 credits of 30000-level or higher Electrical Engineering courses.
7. **New Transfer Students** who have already completed the equivalent of Calculus II (Math 20200) should not take Engr 10100. They are required to complete an additional 1-credit EE Advanced Laboratory Elective course.
8. **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).
9. Note, that the latest version of the program curriculum sheet supersedes the curriculum reported in the Undergraduate Bulletin.

**Total Credits: 130.**