

## Computer Engineering Curriculum Spring 2009

<b>Math 20100</b> Calculus I Pre: Math 19500 (min. C) 3 cr.	<b>General Chemistry Chem 10301</b> Pre: Math 19500 4 cr.	<b>Engl 11000</b> Freshman Composition 3 cr.	<b>Engr 10100<sup>6</sup></b> Engineering Design I Pre/Co: Math 19500 (min. C) 1 cr.	<b>2 Liberal Arts<sup>4</sup></b> (10000 or higher) 6 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>CSc 10200</b> Introduction to Computing Pre: Math 20100 (min. C) 3 cr.	<b>CSc 10400</b> Discrete Math Structure I Pre: Math 20100 (min. C) 3 cr.	<b>Engr 10300</b> Analysis Tools for Eng'rs Pre: Math 20100 (min. C) 2 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>EE 21000</b> Switching Systems Pre: Math 20200 (min. C) 3 cr.	<b>Engr 20400</b> Electrical Circuits Pre/Co: Phys 20800 (min. C), Math 20300 (min. C) 3 cr.	<b>CSc 21200</b> Data Structures Pre: CSc 10200 & CSc 10400 3 cr.
<b>Math 39100</b> Differential Equations Pre: Math 20300 3 cr.	<b>Math 39200</b> Linear Algebra & Vector Pre: Math 20300 3 cr.	<b>EE 20500</b> Linear Systems I Pre: Engr 20400 Pre/Co: Engr 10300, Math 39100 (Cmin) 3 cr.	<b>EE 24100</b> Electronics I Pre: Phys 20800 (min. C); Pre/Co: EE 20500 & EE 21000 3 cr.	<b>EE 31100</b> <b>Probability &amp; Statistics</b> Pre: Math 20300 3 cr.
<b>EE 22100</b> EE Lab I Pre: EE 21000, Engr. 20400 Pre/Co: Engr 10300 1 cr.	<b>EE 30600</b> Linear Systems II Pre: EE 20500 3 cr.	<b>EE 31200</b> Communication Theory Pre: EE 31100 3 cr.	<b>EE 33000</b> Electromagnetics Pre: Math 39100 (min. C), Math 39200 (min. C) & Phys 20800 (min. C) 3 cr.	<b>CSc 21000</b> Assembly Language Pre: CSc 10200 3 cr.
<b>EE 32200</b> EE Lab II Pre: EE 22100 & EE 24100 1 cr.	<b>EE 45700</b> Digital Integrated Circuits Pre: EE 24100 3 cr.	<b>CSc 33200</b> Operating Systems Pre: CSc 22000 & (Csc 21700 or EE 31100) 3 cr.	<b>Csc 34300</b> Computer Organize Lab Coreq: Csc 34200 1 cr.	<b>CSc 34200</b> Computer Organization Pre: CSc 21000 or EE 21000 Co: Csc 34300 3 cr.
<b>EE 42500</b> Computer Engineering Lab Pre: EE 44400 or [CSc 21000 (min. C) & CSc 34200] 1 cr.	<b>Csc 59866</b> Senior Design Project I Pre/Co: Seniors, Perm Two Consecutive Semesters 3 cr.	<b>EE 59866 (59868)</b> Senior Design Project I Pre: EE 32200 Pre/Co: Any EE lab Elective CpE majors do not require EE Lab Elect. Two Consecutive Semesters.	<b>Eng'ng Sci. Elective</b>	<b>Comp Engr Elective</b> <i>(from Csc Lists)</i> 3 cr.
<b>Comp Engr Elective</b> <i>(from EE Lists)</i> 3 cr.	<b>Csc 59867</b> Senior Design Project II Pre: Csc 59868 3 cr.	<b>EE 59867 (59869)</b> Senior Design Project II Pre: EE 59866	<b>Practice / Ethics Issues</b> <i>(1 Course)</i>	<b>2 Liberal Arts<sup>4</sup></b> (20000 or higher) 6 cr.
			CSc 37500: Social Iss. Comp. EE 43800: Mng't Conc. Eng Phil 34902: Computer Ethics 3 cr.	Engr 27600: Eng. Economics Engr 30000: Impact Bio Tech

Computer Science Electives						Electrical Engineering Electives				
Csc 30100	Csc 33600	CSc 43000	CSc 44200	CSc 47000	CSc 47800	BME 50500	EE 35700	EE 45200	EE 45800	EE 46300
Csc 30400	Csc 41200	CSc 43200	CSc 44600	CSc 47100	CSc 47900	EE 33300	EE 37100	EE 45300	EE 45900	EE 46400
Csc 31100	CSc 42000	CSc 43500	CSc 44800	CSc 47200	CSc 48000	EE 33900	EE 44100	EE 45400	EE 46000	EE 51000
Csc 32200	CSc 42200	CSc 43800	CSc 45000	CSc 47300	CSc 48600	EE 34200	EE 45100	EE 45600	EE 46200	EE 51003
Csc 33500	CSc 42800	CSc 44000	CSc 45400	CSc 47500	Csc 51003					

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:**  
**CpE students** must take six approved courses (18 credits) of which at least two (6 credits) 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.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. **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 Computer Science or Electrical Engineering courses taken at CCNY.
6. **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 advanced laboratory elective course from Computer Science or Electrical Engineering.
7. **Program Changes:** Substitution of other courses for required courses must be approved by the Chair of the Computer Science Department (NAC 8/206) for CSc courses or the Chair of the Electrical Engineering Department (ST-602) for EE courses, and approved by the Associate Dean of the Office of Undergraduate Affairs (ST-209) in both cases.
8. **Declaring Your Major:** Freshmen, sophomores, juniors and new transfer students with the code **008** (Waiting for Computer Engineering) who have taken calculus I, or who are currently taking calculus I, should file for the code **F16** (Computer Engineering). For an application and submission of the form go to room ST-209 Steinman Hall.
9. Note, that the latest version of the program curriculum sheet supersedes the curriculum reported in the Undergraduate Bulletin.

**Total Credits: 127 - 128.**