## Computer Engineering Curriculum

### Fall 2023 – Spring 2024

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Prerequisites</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Math 20100</td>
<td>Calculus I</td>
<td>Pre: Math 19500</td>
<td>3–4 cr.</td>
</tr>
<tr>
<td>Math 21200 or 20200</td>
<td>Calculus II</td>
<td>Pre: Math 20100</td>
<td>3–4 cr.</td>
</tr>
<tr>
<td>Phys 20700</td>
<td>General Physics I</td>
<td>Pre: Co/EE Math 21200 or 20200</td>
<td>4 cr.</td>
</tr>
<tr>
<td>Math 21300</td>
<td>General Physics II</td>
<td>Pre: Phys 20700</td>
<td>4 cr.</td>
</tr>
<tr>
<td>Math 39100</td>
<td>Differential Equations</td>
<td>Pre: Math 21300 or 20300</td>
<td>4 cr.</td>
</tr>
<tr>
<td>EE Lab I</td>
<td>EE Lab I</td>
<td>Pre: EE 21000</td>
<td>3 cr.</td>
</tr>
<tr>
<td>EE Lab II</td>
<td>EE Lab II</td>
<td>Pre: EE 22100 &amp; EE 24100</td>
<td>1 cr.</td>
</tr>
<tr>
<td>EE 32200</td>
<td>EE 32200</td>
<td>Pre: EE 21000 &amp; EE 24100</td>
<td>1 cr.</td>
</tr>
<tr>
<td>CSc 59866</td>
<td>Senior Project I</td>
<td>Pre/Co/Csc Senior Project I</td>
<td>3 cr.</td>
</tr>
</tbody>
</table>

### Systems track
- CSc 42000: Computer Networks
- EE 33300: Intro Antennas, Microwave & Fiber Optics
- EE 33900: Semiconductor Materials & Devices
- EE 37100: Linear Feedback Systems
- EE 45100: Communication Electronics

### Computation & Signal Processing track
- EE 46000: Computer Communication Systems
- EE 46300: Wireless Communications
- EE 47200: Digital Design Using Verilog
- EE 47300: Thermodynamics
- EE 22300: Quantum Mech for Applied Physics

### Computer Engineering Electives
- CSc 30100: Numerical Issues in Sci Programming
- CSc 44700: Introduction to Machine Learning
- CSc 47000: Image Processing
- CSc 47200: Computer Graphics
- CSc 47900: Digital Libraries
- CSc 5944: Neural Computing

### Liberal Arts
- EE 31200: Communication Theory Pre/Co: EE 21000 | 3 cr. |

### Total Credits: 129–132.

1. The latest version of the curriculum sheet supersedes any curriculum and pre/corequisite information in the Undergraduate Bulletin or online.
2. “C” Passing Grade Requirement: Courses in shaded area require a minimum passing grade of “C”.
3. Skills tests: Certain students may be required to pass CUNY Assessment Tests in one or more subjects within 1 or 2 years of admission.
4. Liberal Arts electives: CPE students must take six approved courses, of which at least two must have course numbers of 20000 or higher. The courses should satisfy Flexible Core (Pathways) liberal arts requirements in the Creative Expression (CE), World Cultures & Global Issues (WCGI), Individual & Society (IS), and U.S. Experience (US) areas. Prior courses in these four areas from other colleges can satisfy the electives. The remaining two courses must be chosen from the list on the Grove School of Engineering web site at ccny.cuny.edu/engineering/gen-ed.
5. Other Graduation Requirements: Apply for graduation during registration for the last semester. Minimum GPA of 2.00. Minimum QPA of zero. Residency Requirement: 30 credits of 3000-level or higher Computer Science or Electrical Engineering courses taken at CCNY.
6. Transfer students with credit for Math 21200 or 20200 are considered too advanced for Engr 10100. They should take an additional 1-credit CSc or EE lab instead. (FIQWS 10026 fulfills the requirements for Eng 11000 and Engr 10100.)
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. Red texts are the most recent curriculum changes.
Courses are shown in the earliest possible semester, ignoring the 18-credit limit.

Also required: 6 liberal arts, English 110 & 210.07, and a practice/ethics elective.