Computer Engineering – Class of 2027 (133 credits)

Hub Electives: must include all Hub areas below to fulfill degree requirements

- 1. One unit Philosophical Inquiry & Life’s Meanings (PLM)
- 2. One unit Aesthetic Exploration (AEX)
- 3. One unit Historical Consciousness (HCO)
- 4. One unit Social Inquiry (SO1 or SO2)
- 5. One unit Individual & Community (IIC)
- 6. First unit Global Citizenship & Intercultural Literacy (GCI)
- 7. Second unit Global Citizenship & Intercultural Literacy (GCI)
- 8. One unit Ethical Reasoning (ETR)
- Total of at least 16 credits

Notes:
- Grey box = either semester
-  = prerequisite;  = corequisite
- Students planning to study abroad sophomore 2 should take EK 301 in sophomore 1.
- Students must complete 48 credits of upper-division program coursework (not including Hub or writing).
- See back for Hub Unit Legend
REQUIREMENTS

Computer Engineering (CE) majors are required to complete a minimum of 133 credits as detailed on the Program Planning Sheet on the other side of this page.

HUB ELECTIVES

All students are required to complete a total of 26 Hub units. Eighteen of these Hub units are included in courses required for the CE BS degree. The remaining eight Hub units must be satisfied through four (or more) Hub Electives that incorporate the following seven Hub areas: Philosophical Inquiry; Aesthetic Exploration; Historical Consciousness; Social Inquiry; Individual in Community; Ethical Reasoning; Global Citizenship & Intercultural Literacy (2X). Search for courses that fulfill specific combinations of Hub units at: https://www.bu.edu/phbin/course-search/

CORE ELECTIVE

CE majors complete two Core Electives (8 credits) from the following list:

ENG EC 401 Signals and Systems
ENG EC 440 Introduction to Operating Systems
ENG EC 444 Smart and Connected Systems
ENG EC 447 Software Design
ENG EC 504 Advanced Data Structures
ENG EC 512 Enterp Client-Server Softwr Sys Des
ENG EC 513 Computer Architecture
ENG EC 521 CyberSecurity
ENG EC 526 Parallel Prog for High Perf & Big Data
ENG EC 527 High Perf Prog w/ Multicore & GPUs
ENG EC 528 Cloud Computing
ENG EC 530 Software Engineering Principles

COMPUTER ENGINEERING ELECTIVE

CE majors complete two Computer Eng Elective courses (8 credits) from the following list:

ENG EC 440 Introduction to Operating Systems
ENG EC 441 Intro to Computer Networking
ENG EC 444 Smart & Connected Systems
ENG EC 447 Software Design
ENG EC 504 Advanced Data Structures
ENG EC 512 Enterp Client-Server Softwr Sys Des
ENG EC 513 Computer Architecture
ENG EC 521 CyberSecurity
ENG EC 526 Parallel Prog for High Perf & Big Data
ENG EC 527 High Perf Prog w/ Multicore & GPUs
ENG EC 528 Cloud Computing
ENG EC 530 Software Engineering Principles

EE BREADTH ELECTIVE

CE majors complete one EE Breadth Elective course (4 credits) from the following list:

ENG EC 401 Signals and Systems
ENG EC 402 Control Systems
ENG EC 410 Introduction to Electronics
ENG EC 412 Analog Electronics
ENG EC 414 Machine Learning
ENG EC 415 Software Radios
ENG EC 417 Electric Energy Systems
ENG EC 418 Intro to Reinforcement Learning
ENG EC 445 Electromagnetic Systems I
ENG EC 456 Electromagnetic Systems II
ENG EC 471 Physics of Semiconductor Devices
ENG EC 501 Dynamic System Theory
ENG EC 503 Introduction to Learning from Data
ENG EC 505 Stochastic Processes
ENG EC 508 Wireless Communication

TECHNICAL ELECTIVES (see Notes below)

CE majors complete three Technical Elective courses (12 credits) from the following:

Any course listed as Computer Engineering Elective:

ENG BE 209 and any ENG EC, BE, CI, or ME course at the 300-level or above, except for 600-level courses and CE 409, are acceptable as Technical Electives (no more than 4 credits of ENG EC 451 can be used).

Approved Courses Outside Engineering that fulfill a Technical Elective:

CAS AS 414 Solar and Space Physics
CAS CS 440 Intro to Artificial Intelligence
CAS CS 480 Introduction to Computer Graphics
CAS CS 585 Image and Video Computing
CAS MA 511 Introduction to Analysis

Hub Unit Legend:

| QR1 = Quantitative Reasoning 1 | WRI = Writing, Research & Inquiry | RIL = Research and Information Literacy |
| QR2 = Quantitative Reasoning 2 | WIN = Writing-Intensive Course | TWC = Teamwork/Collaboration |
| S1 = Scientific Reasoning 1 | OSC = Oral and/or Signed Communication | CRI = Creativity/Innovation |
| S2 = Scientific Reasoning 2 | DME = Digital/Multimedia Expression | CRT = Critical Thinking |
| FYW = First-Year Writing Seminar |

Notes:

a) Any requirement satisfied via AP/IB can earn a maximum of one Hub unit and may require students to replace the Hub units missed.

b) Any requirement satisfied via transfer earns zero Hub units and may require students to replace the Hub units missed.

c) For each of the following sets of courses, only one course can be taken for credit in each set due to the overlap of material:

(1) ENG ME 403, ENG ME 404, ENG EC 402, ENG BE 404
(2) ENG ME 303, ENG BE 436
(3) ENG ME 306, ENG BE 425
(4) ENG EC 103, CAS MA 142, CAS MA 242
(5) ENG BE 403, ENG EC 401
(6) ENG EC 381, CAS MA 381, CAS MA 581

5/30/2023