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/phpbin/course-search/](https://www.bu.edu/phpbin/course-search/)

CORE ELECTIVE

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

- ENG EC 401 Signals and Systems
- ENG EC 410 Introduction to Electronics

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 541 Computer Communications Networks
- ENG EC 544 Network Physical World
- ENG EC 545 Cyber Physical Systems
- ENG EC 551 Adv Digital Design w/ Verilog & FPGA
- ENG EC 552 Computational Synthetic Biology
- ENG EC 571 Digital VLSI Circuit Design
- ENG EC 572 Intro to Information Theory

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 Intro 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 455 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 Intro to Learning from Data
- ENG EC 505 Stochastic Processes
- ENG EC 508 Wireless Communication
- ENG EC 515 Digital 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, EK or ME course at the 300-level or above, except for 600-level courses, 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
- QR2 = Quantitative Reasoning 2
- S1 = Scientific Reasoning 1
- S2 = Scientific Reasoning 2
- FYW = First-Year Writing Seminar
- WRI = Writing, Research & Inquiry
- WRI = Writing, Research & Inquiry
- WRI = Writing, Research & Inquiry
- WRI = Writing, Research & Inquiry
- RIL = Research and Information Literacy
- TWC = Teamwork/Collaboration
- CRT = Critical Thinking
- OSC = Oral and/or Signed Communication
- DME = Digital/Multimedia Expression
- DME = Digital/Multimedia Expression
- DME = Digital/Multimedia Expression

Notes:

- Any requirement satisfied via AP/IB can earn a maximum of one Hub unit and may require students to replace the Hub units missed.
- Any requirement satisfied via transfer earns zero Hub units and may require students to replace the Hub units missed.
- 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:
  - ENG ME 403, ENG ME 404, ENG EC 402, ENG BE 404
  - ENG ME 303, ENG BE 436
  - ENG ME 306, ENG BE 425
  - ENG EC 103, CAS MA 142, CAS MA 242
  - ENG BE 403, ENG EC 401
  - ENG EC 381, CAS MA 381, CAS MA 581

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