Electrical Engineering – Class of 2026 (131 credits)

Freshman 1
- CAS MA 123 Calculus I QR2; CRT
- CAS CH 131 Gen Chem Eng SI1; QR1
- ENG EK 100 Freshman Seminar
- ENG EK 125 Program for Engs QR1; CRI
- CAS WR 120 Writing Seminar FYW

Freshman 2
- CAS MA 124 Calculus II SI2; CRT
- CAS PY 211 Physics I SI1; QR1; CRT; TWC
- ENG EK 131 Intro to Eng
- ENG EK 103 Comp Lin Alg
- CAS WR 15x Writing & Res WRI; RIL

Sophomore 1
- CAS MA 225 Multivar Calculus QR2; CRT
- CAS PY 212 Physics II SI2; QR2; CRT; TWC
- ENG EK 307 Electric Circuits
- ENG EK 210 Intro Eng Des TWC

Sophomore 2
- CAS MA 226 Diff Equ CRT
- CAS PY 313 Modern Physics SI2; CRT
- ENG EK 301 Eng Mechanics CRT; CRI
- Hub Electives

Junior 1
- ENG EC 455 Electromag Sys I
- ENG EC 401 Signals & Systms
- ENG EC 410 Intro Electronics
- ENG EC 311 Intro Logic Des

Junior 2
- ENG EK 381 Prob, Stats & DS QR2; CRT
- EE Core Elective
- EE Core Elective
- EE Core Elective

Senior 1
- Computer Elective
- Technical Elective
- Senior Design I WIN; DME; RIL
- Hub Elective

Senior 2
- Technical Elective
- Technical Elective
- Senior Design II WIN; OSC
- Hub Elective

*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).

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 Ethical Reasoning (ETR)
- 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 Total of at least 16 credits
Electrical Engineering (EE) majors are required to complete a minimum of 131 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 EE 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/)

EE majors complete three EE Core Electives (12 credits) chosen from the courses listed in the Systems, Electronics and Electrophysics areas. Courses must be selected from at least two of the three areas, and no more than two courses can be from any single area:

**SYSTEMS**
- ENG EC 402 Control Systems
- ENG EC 414 Machine Learning
- ENG EC 415 Software Radios
- ENG EC 501 Dynamic System Theory
- ENG EC 503 Intro to Learning from Data
- ENG EC 505 Stochastic Processes

**ELECTRONICS**
- ENG EC 412 Analog Electronics
- ENG EC 417 Electric Energy Systems
- ENG EC 571 Digital VLSI Circuit Design

**ELECTROPHYSICS**
- ENG EC 417 Electric Energy Systems
- ENG EC 456 Electromagnetic Systems II
- ENG EC 471 Physics of Semiconductor Devices
- ENG EC 543 Sustainable Power Systems
- ENG EC 555 Intro to Bio Optics
- ENG EC 556 Optical Spectroscopic Imaging
- ENG EC 560 Intro to Photonics

**COMPUTER ELECTIVES**
EE majors complete one Computer Elective (4 credits) from the following list:
- ENG EC 327 Intro Software Engineering
- ENG EC 413 Computer Organization
- ENG EC 441 Introduction to Computer Networking

**TECHNICAL ELECTIVES**
EE majors complete three Technical Elective courses (12 credits) from the following:

Acceptable courses include all EC courses and ENG BE 209.

Additionally, all ENG BE, EK and ME courses at the 300-level and 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 AS 410 Intro to Artificial Intelligence
- CAS CS 480 Introduction to Computer Graphics
- CAS CS 585 Image and Video Computing
- CAS MA 511 Introduction to Analysis
- CAS MA 528 Introduction to Modern Geometry
- CAS MA 531 Computability and Logic
- CAS MA 541 Modern Algebra 1
- CAS MA 583 Introduction to Stochastic Processes
- CAS MA 584 Introduction to Modern Geometry
- CAS MA 585 Introduction to Modern Geometry
- CAS MA 592 Introduction to Modern Geometry
- CAS MA 593 Introduction to Modern Geometry
- CAS MA 594 Introduction to Modern Geometry
- CAS MA 595 Introduction to Modern Geometry
- CAS MA 596 Introduction to Modern Geometry
- CAS MA 597 Introduction to Modern Geometry
- CAS MA 598 Introduction to Modern Geometry
- CAS MA 599 Introduction to Modern Geometry
- CAS PY 451 Quantum Physics 1
- CAS PY 452 Quantum Physics 2
- CAS PY 453 Quantum Physics 3
- CAS PY 454 Quantum Physics 4
- CAS PY 455 Quantum Physics 5
- CAS PY 456 Quantum Physics 6
- CAS PY 457 Quantum Physics 7
- QST SI 480 The Business of Technology Innovation
- QST SI 482 Technology and its Commercialization

**Hub Unit Legend:**
- QR1 = Quantitative Reasoning 1
- QR2 = Quantitative Reasoning 2
- SI1 = Scientific Reasoning 1
- SI2 = Scientific Reasoning 2
- FYW = First-Year Writing Seminar
- WRI = Writing, Research & Inquiry
- OSC = Oral and/or Signed Communication
- DME = Digital/Multimedia Expression
- CRT = Critical Thinking

**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 EK 103, CAS MA 142, CAS MA 242
  5. ENG BE 403, ENG EC 401
  6. ENG EK 381, CAS MA 381, CAS MA 581

5/19/2022