College of Engineering

Computer Engineering – 2021 (132 credits)

Freshman 1
- CAS MA 123 Calculus I
- ENG EK 100 Freshman Seminar
- CAS CH 131 Principles of Gen Chemistry
- ENG EK 125 Programming for Engineers
- CAS WR 100 Writing Seminar

Freshman 2
- CAS MA 124 Calculus II
- CAS PY 211 Physics I
- ENG EK 131/2 Intro to ENG
- ENG EK 102 Intro Lin Alg
- CAS WR 150 Writing & Res Seminar

Sophomore 1
- CAS MA 225 Multivariate Calculus
- CAS PY 212 Physics II
- ENG EK 307 Electric Circuits
- ENG EC 327 Intro to Software Engineering

Sophomore 2
- CAS MA 226 Differential Equations
- ENG EC 311 Intro Logic Design
- ENG EK 301 Eng Mechanics
- ENG EC 210 Intro ENG Des
- ENG EK 307 Eng Mechanics

Junior 1
- ENG EK 381 Prob, Stats & Data Sci
- ENG EC 413 Computer Organization
- CE Core Elective
- ENG EC 311 Intro Logic Design
- CAS MA 193 Intro Discr Math

Junior 2
- EE Breadth Elective
- Computer Eng Elective
- CE Core Elective

Senior 1
- Computer Eng Elective
- Technical Elective
- ENG EC 463 Senior Design I
- Social Science

Senior 2
- Technical Elective
- Technical Elective
- ENG EC 464 Senior Design II
- Humanities

Gen Ed Elective

Notes
- Students planning to study abroad sophomore 2 should take ENG EK 301 in sophomore 1.
- Grey box = either semester
- Students must complete 48 credits of upper-division program coursework (not including social science/humanities or writing).

General Education Electives Checklist
- 1. CAS WR 100
- 2. CAS WR 150
- 3. One Social Science course
- 4. One Humanities course
- 5. One Social Science or Humanities course
- 6. One General Education elective course
- 7. Total of at least 24 credits
REQUIREMENTS
Students majoring in Computer Engineering are required to complete a minimum of 132 credits as detailed on the Program Planning Sheet on the other side of this form.

General Education Courses: For a list of specific courses that satisfy the Social Science, Humanities, and the General Education Elective, please go to the College of Engineering Undergraduate Requirements website at: http://www.bu.edu/eng/current-students/ugrad/requirements/.

CORE ELECTIVE Computer Engineering majors complete 2 Core Electives from the following list:
- ENG EC 401 Signals and Systems
- ENG EC 410 Introduction to Electronics
- ENG EC 440 Introduction to Operating Systems
- ENG EC 441 Introduction to Computer Networking
- ENG EC 444 Smart and Connected Systems
- ENG EC 450 Microprocessors

COMPUTER ENGINEERING ELECTIVE Computer Engineering majors complete 2 CE Elective courses from the following list:
- ENG EC 440 Introduction to Operating Systems
- ENG EC 521 CyberSecurity
- ENG EC 444 Parallel Programming for High Performance & Big Data
- ENG EC 447 High Perf Programming with Multicore & GPU’s
- ENG EC 504 Microprocessors
- ENG EC 541 Software Design
- ENG EC 554 Introduction to Operating Systems
- ENG EC 543 Smart & Connected Systems
- ENG EC 544 Computer Communications Networks
- ENG EC 545 Network Physical World

EE BREADTH ELECTIVE Computer Engineering majors complete 1 EE Breadth Elective course:
Any ENG EC course 400-level or higher that is not on the above Computer Engineering Elective list, except ENG EC 450, Directed Studies (ENG EC 451), 600-level courses, and Special Topics courses (ENG EC 500 and ENG EC 700).
Directed Studies (ENG EC 451), and Special Topics courses (ENG EC 500 and ENG EC 700) may satisfy the EE Breadth requirement by petition only.

TECHNICAL ELECTIVES (see Notes below) Computer Engineering majors complete 3 Technical Elective courses:
- ENG BE 209 and any ENG EC, BE, or ME course at the 300-level or above, except for 600-level courses, are acceptable as Technical Electives.

Pre-Approved Courses Outside Engineering that fulfill a Technical Elective:
- CAS AS 414 Solar and Space Physics
- CAS MA 528 Introduction to Modern Geometry
- CAS MA 531 Computability and Logic
- CAS MA 541 Modern Algebra I
- CAS MA 583 Image and Video Computing
- CAS MA 584 Introduction to Artificial Intelligence
- CAS MA 585 Image and Video Computing
- CAS MA 586 Introduction to Analysis I
- CAS MA 587 Software Design
- CAS MA 588 Introduction to Stochastic Processes
- CAS MA 589 The Business of Technology Innovation

Notes:
For the following sets of courses, only 1 course can be taken for credit in each set due to the overlap of material:

(1) ENG ME 403, ENG ME 404, ENG BE 402, ENG EC 402
(2) ENG ME 303, ENG BE 436
(3) ENG ME 441, ENG ME 515
(4) ENG ME 501, ENG EC 501
(5) ENG EC 102, ENG EC 103, CAS MA 142, CAS MA 242
(6) ENG BE 401, ENG EC 401
(7) ENG ME 366, ENG EC 381, ENG EC 381, ENG BE 200
(8) ENG ME 460, ENG ME 560