College of Engineering

Computer Engineering – 2021 (132 credits)

Freshman 1
- CAS MA 123 Calculus I
- ENG EK 100 Freshman Seminar
- ENG EK 131 Principles of Gen Chemistry
- ENG EK 105 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 2
- 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 EK 210 Intro ENG Des 2
- ENG EC 330 Appl Algorithms for Engineers

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

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

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

Senior 2
- Technical Elective
- Technical Elective
- ENG EC 464 Senior Design II
- Social Science/Humanities

Technical Elective

Gen Ed Elective

Notes
- Students planning to study abroad sophomore 2 should take 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

11/19/2018
REQUIREMENTS
Computer Engineering majors are required to complete a minimum of 132 credits as detailed on the Program Planning Sheet on the other side of this page.

GENERAL EDUCATION
For a list of specific courses that satisfy the Social Science, Humanities and 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 two 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 444 Smart and Connected Systems
- ENG EC 450 Microprocessors

COMPUTER ENGINEERING ELECTIVE
Computer Engineering majors complete two Computer Eng Elective courses (8 credits) from the following list:
- ENG EC 440 Introduction to Operating Systems
- ENG EC 441 Introduction to Computer Networking
- ENG EC 444 Smart and Connected Systems
- ENG EC 447 Software Design
- ENG EC 450 Microprocessors

GENERAL EDUCATION
- ENG EC 447 Software Design
- ENG EC 450 Microprocessors

COMPUTER ENGINEERING ELECTIVE
Computer Engineering majors complete two Computer Eng Elective courses (8 credits) from the following list:
- ENG EC 440 Introduction to Operating Systems
- ENG EC 441 Introduction to Computer Networking
- ENG EC 444 Smart and Connected Systems
- ENG EC 447 Software Design

EE BREADTH ELECTIVE
Computer Engineering majors complete one EE Breadth Elective course 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 Communication Systems
- ENG EC 416 Introduction to Signal Processing
- ENG EC 417 Electric Energy Systems
- ENG EC 419 Electromagnetic Systems I
- ENG EC 455 Electromagnetic Systems II
- ENG EC 456 Electromagnetic Systems
- 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

TECHNICAL ELECTIVES
Computer Engineering majors complete three Technical Elective courses (12 credits):
- 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.

Pre-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
- CAS MA 528 Introduction to Modern Geometry
- CAS MA 531 Computability and Logic
- CAS MA 541 Modern Algebra
- CAS MA 583 Introduction to Stochastic Processes
- CAS MA 588 Optical Fibers and Wave Guides
- CAS PY 313 Waves and Modern Physics
- CAS PY 451 Quantum Physics 1
- CAS PY 452 Quantum Physics 2
- QST SI 480 The Business of Technology Innovation
- QST SI 482 Technology and its Commercialization

Notes:
For each of the following seven 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 BE 402, ENG EC 402
2. ENG ME 303, ENG BE 436
3. ENG ME 501, ENG EC 501
4. ENG EK 102, ENG EK 103, CAS MA 142, CAS MA 242
5. ENG BE 401, ENG BE 403, ENG EC 401
6. ENG ME 366, ENG EC 381, ENG EK 481, ENG BE 200
7. ENG ME 460, ENG ME 560

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