College of Engineering

Electrical Engineering – 2019 (130 credits)

Freshman 1
- CAS MA 123 Calculus I
  4
- ENG EK 100 Freshman Seminar
  4
- CAS CH 131 Principles of Gen Chemistry
  4
- ENG EK 127 Intro ENG Computation
  4
- CAS WR 100 Writing Seminar
  4

Freshman 2
- CAS MA 124 Calculus II
  4
- CAS PY 211 Physics I
  4
- ENG EK 131/2 Intro to ENG
  2
- ENG EK 102 Intro Lin Alg
  2
- CAS WR 150 Writing & Res Seminar
  4

Sophomore 1
- CAS MA 225 Multivariate Calculus
  4
- CAS PY 212 Physics II
  4
- ENG EK 307 Electric Circuits
  4
- ENG EK 210 Intro ENG Des
  2
- Social Science
  4

Sophomore 2
- CAS MA 226 Differential Equations
  4
- CAS PY 313 Waves & Modern Physics
  4
- ENG EK 301 Eng Mechanics
  4
- ENG EK 210 Intro ENG Des
  2
- Humanities
  4

Junior 1
- ENG EC 455 Electromagnetic Systems I
  4
- ENG EC 401 Signals & Systems
  4
- ENG EC 410 Intro Electronics
  4
- ENG EC 311 Intro Logic Design
  4

Junior 2
- ENG EC 381 Probability Theory in ECE
  4
- Electronics Elective
  4
- Systems Elective
  4
- Electrophysics Elective
  4

Senior 1
- Computer Elective
  4
- Technical Elective
  4
- ENG EC 463 Senior Design I
  4
- Social Science/Humanities
  4

Senior 2
- Technical Elective
  4
- Technical Elective
  4
- ENG EC 464 Senior Design II
  4
- Gen Ed Elective
  4

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
REQUIREMENTS
Students majoring in Electrical Engineering are required to complete a minimum of 130 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/.

SYSTEMS ELECTIVES Electrical Engineering majors complete 1 Systems Elective from the following list:
- ENG EC 402 Control Systems
- ENG EC 414 Intro to Machine Learning
- ENG EC 415 Communication Systems

COMPUTER ELECTIVES Electrical Engineering majors complete 1 Computer Elective from the following list:
- ENG EC 327 Intro to Software Engineering
- ENG EC 413 Computer Organization
- ENG EC 441 Introduction to Computer Networking

ELECTRONICS ELECTIVES
- ENG EC 412 Analog Electronics
- ENG EC 417 Electric Energy Systems
- ENG EC 450 Microprocessors

ELECTROPHYSICS ELECTIVES
- ENG EC 417 Electric Energy Systems
- ENG EC 471 Physics of Semiconductor Devices

TECHNICAL ELECTIVES
Electrical Engineering majors complete 3 Technical Elective courses. 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.

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 Intro to Computer Graphics
- CAS CS 585 Image and Video Computing
- CAS MA 511 Introduction to Analysis I

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 EK 102, ENG EK 103, CAS MA 142, CAS MA 242
(6) ENG BE 401, ENG EC 401
(7) ENG ME 366, ENG EC 381, ENG EK 381, ENG BE 200
(8) ENG ME 460, ENG ME 560

5/2/18