Electrical Engineering – 2021 (130 credits)

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

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).
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
- ENG EC 402 Control Systems
- ENG EC 416 Intro to Signal Processing
- ENG EC 516 Digital Signal Processing
- ENG EC 371 Digital VLSI Circuit Design
- ENG EC 580 Analog VLSI Circuit Design
- ENG EC 582 RF/Analog IC Design
- ENG EC 583 Power Electronics for Energy Systems

ELECTROPHYSICS ELECTIVES
- ENG EC 417 Electric Energy Systems
- ENG EC 456 Electromagnetic Systems II
- ENG EC 471 Physics of Semiconductor Devices
- ENG EC 470 Lasers & Applications
- ENG EC 500 F1 Electrophysics*
- ENG EC 516 Digital VLSI Circuit Design
- ENG EC 565 Electromagnetic Energy Transmission
- ENG EC 568 Optical Fibers & Wave Guides
- ENG EC 583 Power Electronics for Energy Systems
- ENG EC 591 Photonics Laboratory I
- ENG EC 568 Optical Fibers & Wave Guides
- ENG EC 591 Photonics Laboratory I
- ENG EC 568 Optical Fibers & Wave Guides
- ENG EC 568 Optical Fibers & Wave Guides

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 BE 436 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
- CAS MA 528 Intro to Modern Geometry
- CAS MA 531 Computability and Logic
- CAS MA 541 Modern Algebra 1
- CAS MA 583 Intro to Stochastic Processes
- CAS MA 584 Intro to Stochastic Processes
- CAS PY 451 Quantum Physics 1
- CAS PY 452 Quantum Physics 2
- QST SI 480 Business of Technology Innovation
- QST SI 482 Technology Commercialization

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