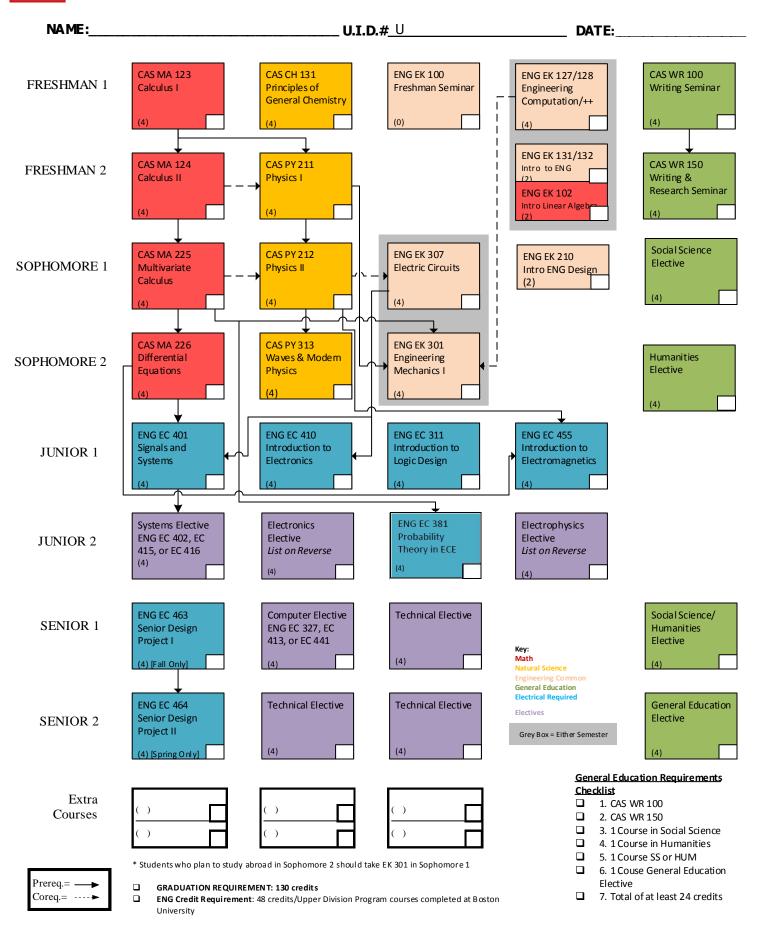
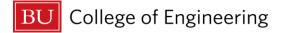
College of Engineering

BI

Electrical Engineering – 2018

Undergraduate Program Planning Sheet





ELECTRICAL ENGINEERING

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/.

ELECTRONICS ELECTIVES

ENG EC 412 Analog Electronics	ENG EC 571 Digital VLSI Circuit Design
ENG EC 417 Electric Energy Systems	ENG EC 580 Modern Active Circuit Design
ENG EC 450 Microprocessors	ENG EC 582 RF/Analog IC Design
ENG EC 470 Sensors in Space	ENG EC 583 Power Electronics for Energy Systems

ELECTROPHYSICS ELECTIVES

ENG EC 574 Physics of Semiconductor Materials ENG EC 417 Electric Energy Systems ENG EC 583 Power Electronics for Energy Systems ENG EC 456 Electromagnetic Systems II ENG EC 500 F1 Electrophysics* ENG EC 591 Photonics Laboratory I ENG EC 470 Sensors in Space ENG EC 562 Engineering Optics ENG EC 471 Physics of Semiconductor Devices ENG EC 565 Electromagnetic Energy Transmission ENG EK 481 Intro to Nanotechnology

TECHNICAL ELECTIVES (see Notes below)

Electrical Engineering majors complete 3 Technical Elective courses. Acceptable courses include all EC courses (except 600-level) 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

CAS MA 528 Intro to Modern Geometry CAS PY 451 Quantum Physics 1 CAS MA 531 Computability and Logic CAS MA 541 Modern Algebra 1 CAS MA 583 Intro to Stochastic Processes QST SI 482 Technology Commercialization

CAS PY 452 Quantum Physics 2 QST SI 480 Business of Technology Innovation

DEGREE ENHANCEMENTS

CONCENTRATIONS

Students may choose to add a Concentration in Energy Technologies, Nanotechnology, or Technology Innovation. Students completing a Minor in Mechanical Engineering may choose to add a concentration in Aerospace Engineering. A concentration requires 4 courses which can usually be used to satisfy courses within the major. Hence, a concentration can usually be completed without additional coursework. More information on concentrations and the specific requirements for each can be found at http://www.bu.edu/eng/academics/programs/concentrations/.

*Electrophysics: EC 500 F1 can not substitute EK 481(exc. Nanotech Concentration)

MINORS

Students may choose to add a minor in any one of the other departments or divisions (Materials Science & Engineering or Systems Engineering) within the College of Engineering. A minor consists of 5 courses, 2 of which may also be used to satisfy requirements for the major. Completing a Minor will add a minimum of 12 credits to the total credits for the degree. More information on minors and the specific requirements for each can at http://www.bu.edu/eng/academics/programs/minors/. Students may also pursue minors in other Colleges at Boston University. For more information, please contact the College of the minor.

DOUBLE MAJORS

Students may earn two engineering BS degrees. Double majors require a minimum of 162 credits and students must fulfill the requirements for each of the degree programs. See http://www.bu.edu/eng/academics/special-programs/ for more details.

OTHER WAYS TO ENHANCE YOUR DEGREE

Students have several additional options available to them including study abroad, research, and co-op/internship opportunities. For more information on these programs, please visit the College of Engineering Undergraduate website: http://www.bu.edu/eng/academics/.

Notes:

For the following 8 sets of courses, only 1 course can be taken for credit in each set due to the overlap of material:

- (1) ENG ME 305, ENG BE 420
- (2) ENG ME 403, ENG ME 404, ENG BE 402, ENG EC 402
- (3) ENG ME 303, ENG BE 436
- (4) ENG ME 441, ENG ME 515

(5) ENG ME 501, ENG EC 501 (6) ENG EK 102, CAS MA 142, CAS MA 242 (7) ENG BE 401, ENG EC 401 (8) ENG ME 366, ENG EC 381, ENG BE 200, ENG EK 500