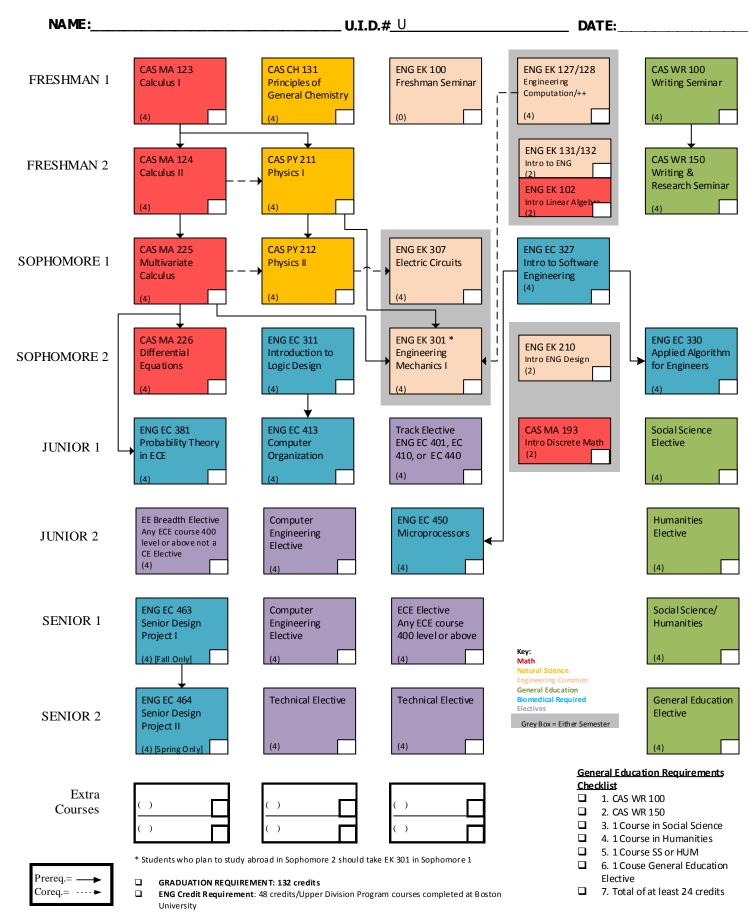
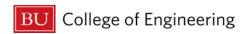
Undergraduate Program Planning Sheet





#### 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: <a href="http://www.bu.edu/eng/current-students/ugrad/requirements/">http://www.bu.edu/eng/current-students/ugrad/requirements/</a>.

TRACK ELECTIVE Computer Engineering majors complete 1 Track Elective from the following list:

ENG EC 401 Signals and Systems
ENG EC 410 Introduction to Electronics
ENG EC 440 Introduction to Operating Systems

**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 CAS CS 320 Concepts of Programming Languages ENG EC 441 Introduction to Computer Networking ENG EC 527 High Perf Programng with Multicore & GPU's CAS CS 320 Concepts of Programming Languages ENG EC 447 Software Design ENG EC 531 Introduction to Embedded Systems CAS CS 340 Advanced Software Systems CAS CS 410 Advanced Software Systems CAS CS 410 Software Engineering CAS CS 410 Software Engineering CAS CS 410 Advanced Digital Design with Verilog & FPGA CAS CS 410 Any CAS CS 500-level course (except CAS CS 410 Software Engineering CA

## **<u>EE BREADTH ELECTIVE</u>** Computer Engineering majors complete 1 EE Breadth Elective course :

Any ENG EC course 400-level or higher that is <u>not</u> on the above Computer Engineering Elective list, except Directed Studies (ENG EC 451) 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.

### **ECE GENERAL ELECTIVE** Computer Engineering Majors complete 1 ECE General Elective:

Any ENG EC course 400 level or above that has not been used for any of the other elective requirements for CE majors.

#### **TECHNICAL ELECTIVES** (see **Notes** below) Computer Engineering majors complete 2 Technical Elective courses:

ENG BE 209 and any ENG EC, BE, EK or ME course at the 300-level or above 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 PY 451 Quantum Physics 1
CAS CS 440 Intro to Artificial Intelligence CAS CS 480 Introduction to Computer Graphics CAS CS 480 Introduction to Computing CAS CS 585 Image and Video Computing CAS MA 511 Introduction to Analysis I CAS PY 313 Waves and Modern Physics

CAS MA 511 Introduction to Analysis I CAS MA 528 Introduction to Modern Geometry CAS PY 451 Quantum Physics 1
CAS MA 520 Quantum Physics 1
CAS PY 452 Quantum Physic

### **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 <a href="http://www.bu.edu/eng/academics/programs/concentrations/">http://www.bu.edu/eng/academics/programs/concentrations/</a>.

# **MINORS**

Students may choose to add a minor in any one of the other degree programs 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 for the degree. More information on minors and the specific requirements for each can at <a href="http://www.bu.edu/eng/academics/programs/minors/">http://www.bu.edu/eng/academics/programs/minors/</a>. 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 168 credits and students must fulfill the requirements for each of the degree programs.

See <a href="http://www.bu.edu/eng/academics/special-programs/">http://www.bu.edu/eng/academics/special-programs/</a> 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: <a href="http://www.bu.edu/eng/academics/">http://www.bu.edu/eng/academics/</a>.

#### 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