NAME: ___________________________ U.I.D. # U ___________________________ DATE: ___________________________

**Computer Engineering - 2016**
**Undergraduate Program Planning Sheet**

**FRESHMAN 1**
- CAS MA 123 Calculus I (4)
- CAS CH 131 Principles of General Chemistry (4)
- ENG EK 100 Freshman Seminar (0)
- CAS WR 100 Writing Seminar (4)

**FRESHMAN 2**
- CAS MA 124 Calculus II (4)
- CAS PY 211 Physics I (4)
- ENG EK 127/128 Engineering Computation/++ (4)
- CAS WR 150 Writing & Research Seminar (4)

**SOPHOMORE 1**
- CAS MA 225 Multivariate Calculus (4)
- CAS PY 212 Physics II (4)
- ENG EK 130/131/132 Introduction to Engineering (4)
- CAS MA 226 Differential Equations (4)
- ENG EK 307 Electric Circuits (4)
- ENG EK 301 Engineering Mechanics I (4)
- CAS MA 226 Differential Equations (4)
- ENG EK 307 Electric Circuits (4)
- ENG EK 301 Engineering Mechanics I (4)
- CAS MA 133 Introduction to Material Science (4)

**SOPHOMORE 2**
- ENG EC 311 Introduction to Logic Design (4)
- ENG EK 302 or CAS MA 142 Introduction to Linear Algebra (2)
- ENG EK 301 Engineering Mechanics I (4)
- CAS MA 193 Introduction to Discrete Mathematics (4)
- ENG EK 301 Engineering Mechanics I (4)
- CAS MA 193 Introduction to Discrete Mathematics (4)
- ENG EC 440 Introduction to Software Engineering (4)
- ENG EC 330 Applied Algorithms for Engineers (4)

**JUNIOR 1**
- ENG EC 381 Probability Theory in ECE (4)
- ENG EC 413 Computer Organization (4)
- Track Elective: ENG EC 410 or ENG EC 440 (4)
- CAS MA 193 Introduction to Discrete Mathematics (4)
- Social Science Elective (4)

**JUNIOR 2**
- EE Breadth Elective: Any ECE course 400 level or above not a CE Elective (4)
- Computer Engineering Elective (4)
- ENG EC 450 Microprocessors (4)
- Humanities Elective (4)

**SENIOR 1**
- ENG EC 463 Senior Design Project I (4) [Fall only]
- Computer Engineering Elective (4)
- ECE Elective: Any ECE course 400 level or above (4)
- Social Sci/Humanities (4)

**SENIOR 2**
- ENG EC 464 Senior Design Project II (4) [Spring only]
- Technical Elective (4)
- Technical Elective (4)
- General Education Elective (4)

**Extra Courses**
- ( )
- ( )
- ( )
- ( )

**General Education Requirements Checklist**

- 1. CAS WR 100
- 2. CAS WR 150
- 3. 1 course in Social Science
- 4. 1 course in Humanities
- 5. 1 course SS or HUM
- 6. 1 course General Education Elective
- 7. Total of at least 24 credits

**GRADUATION REQUIREMENT:** 132 credits

**ENG Credit Requirement:** 48 credits/Upper Division Program courses completed at Boston University

* Students who plan to study abroad in sophomore 2 should take EK 301 in Sophomore 1

**Prereq. = Coreq. =**
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: http://www.bu.edu/eng/current-students/ugrad/requirements/.

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 441: Introduction to Computer Networking
- ENG EC 447: Software Design
- ENG EC 504: Advanced Data Structures
- ENG EC 512: Enterprise Client-Server Software Systems
- ENG EC 513: Computer Architecture
- ENG EC 514: Computer and Network Security
- ENG EC 521: Cybersecurity
- ENG EC 527: High Perf Programming with Multicore & GPUs
- ENG EC 551: Advanced Digital Design with Verilog & FPGA
- ENG EC 571: Digital VLSI Circuit Design
- ENG EC 580: Computer Architectures
- ENG EC 640: Introduction to Digital Signal Processing
- ENG EC 670: Bioinformatics

EE BREADTH ELECTIVE

Computer Engineering majors complete 1 EE Breadth Elective course:

- ENG EC 440: Introduction to Operating Systems
- ENG EC 441: Introduction to Computer Networking
- ENG EC 447: Software Design
- ENG EC 504: Advanced Data Structures
- ENG EC 512: Enterprise Client-Server Software Systems
- ENG EC 513: Computer Architecture
- ENG EC 514: Computer and Network Security
- ENG EC 521: Cybersecurity
- ENG EC 527: High Perf Programming with Multicore & GPUs
- ENG EC 551: Advanced Digital Design with Verilog & FPGA
- ENG EC 571: Digital VLSI Circuit Design
- ENG EC 580: Computer Architectures
- ENG EC 640: Introduction to Digital Signal Processing
- ENG EC 670: Bioinformatics

ECE GENERAL ELECTIVE

Computer Engineering Majors complete 1 ECE General Elective:

- ENG EC 400: Computer Networks
- ENG EC 440: Introduction to Operating Systems
- ENG EC 504: Advanced Data Structures
- ENG EC 512: Enterprise Client-Server Software Systems
- ENG EC 513: Computer Architecture
- ENG EC 514: Computer and Network Security
- ENG EC 521: Cybersecurity
- ENG EC 527: High Perf Programming with Multicore & GPUs
- ENG EC 551: Advanced Digital Design with Verilog & FPGA
- ENG EC 571: Digital VLSI Circuit Design
- ENG EC 580: Computer Architectures
- ENG EC 640: Introduction to Digital Signal Processing
- ENG EC 670: Bioinformatics

TECHNICAL ELECTIVES

Computer Engineering majors complete 2 Technical Elective courses:

- ENG BE 209: Engineering Design
- ENG EC 300: Engineering Research
- ENG EC 401: Signals and Systems
- ENG EC 410: Introduction to Electronics
- ENG EC 501: Computer Architecture
- ENG EC 513: Computer Architecture
- ENG EC 514: Computer and Network Security
- ENG EC 521: Cybersecurity
- ENG EC 527: High Perf Programming with Multicore & GPUs
- ENG EC 551: Advanced Digital Design with Verilog & FPGA
- ENG EC 571: Digital VLSI Circuit Design
- ENG EC 580: Computer Architectures
- ENG EC 640: Introduction to Digital Signal Processing
- ENG EC 670: Bioinformatics

Pre-Approved Courses Outside Engineering that fulfill a Technical Elective:

CAS AS 414: Solar and Space Physics
CAS AS 415: Space Systems Design
CAS AS 416: Space Dynamics
CAS AS 418: Space Plasma Physics
CAS AS 419: Spacecraft Design
CAS AS 420: Space Flight Mechanics
CAS AS 421: Spacecraft Propulsion
CAS AS 422: Spacecraft Navigation
CAS AS 423: Spacecraft Structures
CAS AS 424: Spacecraft Control
CAS AS 425: Spacecraft Design

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/.

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 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 168 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

3/23/15