BU Hub (for current Freshmen only): (contact Dan Tyburski or Trisha Mah, 617-353-6447)

Over the next 3.5 years Freshmen should use their four Hub electives to complete the following 8 units:
- Philosophical Inquiry and Life’s Meanings, Aesthetic Exploration, and Historical Consciousness (3 units);
- The Individual in Community, Global Citizenship and Intercultural Literacy (x2), and Ethical Reasoning (4 units);
- Social Inquiry (1 unit). Students should aim to complete 2 Hub units from this list per Hub elective. Freshmen who are ready to take Hub electives need to be mindful of the pairings of Hub units to ensure that they are not ‘doubling up’ on certain units, while neglecting others.

AP classes will earn one unit at most, as indicated in the AP guide. Students need to pay close attention to the units they have earned to assist with future course selection.

Gen Ed requirements: these will continue as normal for current sophomores, juniors and seniors.

Academic Status (contact Undergraduate Programs Office, 617-353-6447)
- Good Standing requires a 2.00 semester and cumulative GPA with a minimum of 12 credits completed
- Students struggling should seek support from the Undergraduate Programs Office, ERB 107
- ENG Tutoring is offered Mondays – Thursdays 5pm – 11pm and Sundays 7pm – 10pm. FREE

Study Abroad options and course scheduling (contact Kat Mor, 617-353-6447)
- Second semester sophomore year; seamless integration w/ ENG programs (70+ participate each year):
  - Applications: deadline Oct 1.
  - ENG Programs: Dresden, Germany; Grenoble, France; Madrid, Spain and Sydney, Australia.
    Students take MA226, EK307 and either BE209, EC 311, ME 304 or PY313, dependent on location; all taught in English. In Europe, language of host country and course about host country required. In Australia, culture course and internship required (internship does not count for degree).
- Junior year, semester varies by program; direct enroll in courses at host site:
  - Applications: deadlines March 15 or Oct 1 (Sept. 15 for Singapore)
  - Not all programs are offered each semester, plan accordingly based on major/desired location
  - ENG Programs: Auckland, Dublin, Singapore, Sydney; student must create program & identify courses (advanced approval required); more difficult to arrange than sophomore programs; requires significant student initiative.
- ENG EK 210, Intro to ENG Design
  - Required for all sophomores. Freshmen who are planning to go abroad in the sophomore year should plan to take EK 210 in fall of sophomore year. Program specific requirements should be taken as follows: CE – take EC 327 in spring of freshman year. ME – take both EK210 and ME359 by the end of Fall of sophomore year; this may mean pushing a Hub elective down to the senior year. BME – students can follow the program planning sheet as it stands.

Minors and Concentrations (contact Stefan Scott, 617-353-6447)
- Minors (requires a minimum of 3 additional courses): Minors require at least 5 courses; only 2 can be double counted toward major. A minor will ADD at least 12 CREDITS to degree requirements. Apply for a minor no later than Oct. 1 of the senior year (in ERB 107).
  - ENG Minors: Biomedical, Computer, Electrical, Mechanical, Materials Science & Engineering, Systems Engineering
  - Non-ENG Minors: available in CAS, CFA, COM, QST (QST minor Bus. Admin. = 7 courses)
    Details of these minors available through ENG Records Office, ERB 107
• **Concentrations** (usually do not require additional courses): Concentrations require 4 courses, which can usually be used to satisfy elective requirements for the major. These also require an experiential component (lab research, directed study, senior design project OR Co-Op/Internship). Apply for a concentration no later than May 1 of the junior year (in ERB 107).

  - Aerospace (ME majors & minors)
  - Energy Technologies (all majors)
  - Manufacturing (all majors)
  - Nanotechnology (all majors)
  - Technology Innovation (all majors)

**Concentration Courses to be offered Spring 2019:**

**Nanotechnology** (contact: Keith Brown)

- CAS PY 313 – Elem Modern Phy*
- ENG BE 437 – Nano in Liv Sys
- ENG EC 471 – Phy Semicond Dev
- ENG EK 481 – Nanomat/Tech (must be taken before the experiential component)
- ENG ME 526 – Simul Phys Proc
- ENG EK 424 – Thermodynamics*
- ENG ME 555 – MEMS: Fab & Mat
- *Either PY 313 or EK 424

**Energy Technologies** (contact: Uday Pal)

- CAS GE 304 – Sustainable Dev
- CAS GE 309 – Envir Analysis
- ENG EC 573 – Solar Energy Sys
- ENG EC 583 – Pow Elec En Sys
- QST SI 453 Environmntl Sustain.
- ENG ME 543 – Sustain Pow Sys
- ENG ME 533: Energy Conversion

**Manufacturing Engineering** (contact: Gerald Fine)

- QST SI 480 – Bus Tech Innov
- ENG ME 345 – Automated MFG
- ENG ME 584 – Manufact Stratg
- ENG ME 507 – Proc Mod & Contrl
- ENG ME 525 – Tech Ventures
- ENG ME 537 – Prod Realizatn

**Technology Innovation** (contact: Tom Little)

- ENG BE 428 – Dev&Diagn Design
- QST SI 482 – Tech Comrclztn
- QST SI 471 – Intl Entprnshp
- QST SI 444 – Entrepreneuer
- ENG ME 506 – Eng Device Apps
- ENG ME 543 – Sustain Pow Sys

**Aerospace Engineering** (Mechanical majors & minors; contact: Ray Nagem)

- CAS AS 414 – Solar and Space Physics
- ENG ME 403 – Atmos Flt Mech
- ENG ME 406 – Dynamics of Spaceflight
- ENG ME 421 – Aerodynamics

**Career Development**

The Career Development Office assists students in finding co-op/internships and permanent employment. Offers resume critiques, cover letter help, mock interviews, and career fairs and workshops.

- Freshman – get familiar with services; draft resumes; attend career fairs;
- Sophomore – revise resumes, plan for a summer research or internship. Attend career fairs.
- Junior – Continue to refine resume; explore graduate school and/or full-time employment options. Identify faculty for recommendations, prepare for GREs. Attend career fairs; search for summer internships.
- Senior – Apply to graduate school and/or begin full-time employment job search. Visit the CDO for mock interviews. Practice technically-based interview questions with professor/mentors.

**Special Programs** (contact Carole Dutchka, 617-353-6647)

- **Boston University Dual Degree Program** (ENG and non-ENG Degrees)
  - 3.00 GPA required; sophomore standing or first semester junior; minimum 144 credits required; student must work out details with both degree programs prior to acceptance
  - Must complete course requirements for both degrees before either degree will be awarded
- **Double Major within the College of Engineering** (2 ENG degrees, different departments)
  - 3.00 GPA required; sophomore standing (32 credits); minimum 160 credits required
Must complete course requirements for both degrees before either degree will be awarded

- **Early Admission to the Master’s Programs**
  - Opportunity for qualified students to apply for early admission to these graduate programs
  - Both degrees can be completed in 5 years or less; Seniors apply in September of senior year & will be informed of decision before end of the semester.

- **Modular/Medical Integrated Curriculum (MMEDIC)**
  - Second semester sophomore standing, BME only; 8-year program: 4yrs B.S., 4 yrs. MD BUSM
  - Continuation into BUSM contingent upon successful completion of all program requirements
  - Introduces some pre-clinical subjects into the undergraduate program
  - Competitive; non-admitted students can still pursue traditional Medical School application

- **Pre-Med Requirements**
  - Pre-Med / Pre-Law CAS Pre-Professional Advising, 100 Bay State Road, 4th Floor, 3-4866, preprof@bu.edu. Usually requires additional coursework.
  - CH 101 and CH 102 must be taken in freshman year. CH 203 and CH 204 are taken in sophomore year (moving WR 150 and a Hub elective down in the schedule), both courses count as Professional Electives towards the BME degree.

- **STEM Educator-Engineer Program (STEPP)** (BS in ENG and Master’s in Education) contact: Stacey Freeman
  - Two SED courses (2 cr) fulfill general education electives. Plan as early as possible.
  - Blend ENG and SED courses and graduate with two degrees in 5 years.
  - Recommend participating in TISP and applying for summer internships teaching engineering.
  - Receive licensure to teach middle and high school math or physics in 44 states.