

BME Major Senior Checklist

NAME _____

ID _____

| Graduation Month/Year | | Track Specialization | | | | Cell/Molecular | Biomaterial/Biomech | Bioelect/Biolmag | | | |
|---|---|----------------------|-----|-------|---|---|---|------------------|-----|-------|-----------------------------------|
| Pre-requisites for this course* | Fall, Freshman Year | credits | sem | grade | This course is required for: | Pre-requisites for this course | Spring, Freshman Year | credits | sem | grade | This course is required for: |
| math placement exam (MPE) level 5 | AMS 151: Calc 1 SBC QPS | 3 | | | Calc 2 | C or higher in Calc 1, or MPE level 7 | AMS 161: Calc 2 | 3 | | | Calc 3 or 4 BME 260 |
| MAT 125 or higher | CHE 131: Chem 1 | 4 | | | Chem 2; BIO 202/204 | C or higher in Chem 1; Pre- or Co-req: Calc 1 or Calc A | CHE 132: Chem 2 | 4 | | | BME 381; BME 404 |
| 5 MPE; Co-req Calc 1 | PHY 131/133: Physics 1/Lab SBC SNW | 4 | | | Physics 2; BME 260 | C or higher in PHY 131 or PHY 141; Co-req: Calc 2 | PHY 132/134: Physics 2/Lab | 4 | | | |
| BME major or BNG minor | BME 100: Intro to BME SBC TECH | 3 | | | BME 212; BME 260; BME 381; BME 353 | none | MEC 203: CAD | 3 | | | |
| | SBC: WRT 102 (WRT) | 3 | | | BME 300 | BME major | BME 120: Programming | 3 | | | |
| | Freshman Seminar (101) | 1 | | | | | Freshman Seminar (102) | 1 | | | |
| | Total | 18 | | | | | Total | 18 | | | |
| Fall, Sophomore Year | | | | | | Spring, Sophomore Year | | | | | |
| Calc 2 or MPE level 9 | AMS 261: Calc 3 | 4 | | | BME 305; BME430 | Calc 2 or MPE level 9 | AMS 361: Calc 4 | 4 | | | BME 305 |
| BME major; BME 100; Pre- or Co-req: BIO 202 or 203 | BME 212: Res Lab Fund or SBC (SBS) | 3 | | | BME303; BME 311; BME 313; BME 353 | BME major; BME 100; Pre- or Co-req: BIO 202 or 203 | BME 212: Res Lab Fund or SBC (SBS) | 3 | | | BME303; BME 311; BME 313; BME 353 |
| C or higher in Chem 1 or Corequisite CHE 152 | BIO 202: Mol&Cell Biology | 3 | | | Pre/Co BME 212; 303; 304; 305; 381; 404; 430; 481 | BME 100; AMS 161; Phy 1 or Phy A | BME 260: Statics/Dynamics | 3 | | | BME 303; BME 305 |
| C or higher in Chem 1, or Co-req: CHE 152; Pre- or Corequisite: BIO 202 | BIO 204: Bio Lab | 2 | | | | BME 100; BIO 202 or 203 | BME 304: Genetic Eng (STAS or DEC H) | 3 | | | BME 402 |
| AMS 151 or MAT 131 or 141 or co-req MAT 126 or MPE level 7 | AMS 210: Lin Alg | 3 | | | | | SBC: GLO (or DEC B) | 3 | | | |
| | Total | 15 | | | | | Total | 16 | | | |

Math Sequence

- MAT 125/126/127 or MAT 131/132 or MAT 141/142 in lieu of AMS 151/161
- MAT 203 or MAT 205 in lieu of AMS 261
- MAT 303 or MAT 305 in lieu of AMS 361
- MAT 211 in lieu of AMS 210
- MAT 307/308 plus a third AMS/MAT course of your choosing (preferably one approved as a tech elective) in lieu of AMS 210/261/361

Physics Sequence

- PHY 125/126/127 or 141/142 in lieu of PHY 131/132

Courses requiring a C or better grade

- All required math courses in the calculus sequence
- All required natural science courses (BIO 202/204, CHE sequence and PHY sequence)
- All required BME courses (BME 100/212/260/271/301/303/304/305/440/441)
- All technical electives

BME 300 requires an "S" grade

BME Technical Electives (pre-reqs)

for any track

- BME 311* (BME212)
- BME 312*
- BME 313* (BME212, pre/co BME271)
- BME 353 (BME100,212)
- BME 354* (BME353)
- BME 371 (BME305)
- BME 381* (BME100, CHE132, pre/co (BIO202 or 203))

*design courses

- BME 402
- BME 404*
- BME 420*
- BME 430
- BME 481*
- BME 499

| Fall, Junior Year | | | | | Spring, Junior Year | | | | | | |
|--|---|-----------|--|--|-------------------------|---|---|---|--|--|------------------|
| Calc 2; Phys 2 AMS 161 or MAT 132 or MAT 126 or MAT 142 BME 260, BME 212; Pre- or Co-req BIO 202 or 203 WRT 102; U3 or U4 standing; BME major; co-req any BME 300-400 | BME 271: Intro BioElect BioPhotonics | 4 | | | BME 301; BME313; BME481 | pre- or co-req BME 212; C or higher in BME 271; BME 120 | BME 301: Bioelectricity (Biophotonics) | 3 | | | BME 440 |
| | AMS 310: Prob/Stat | 3 | | | | Calc 3 & 4; Pre- or co-req BME 212; BME 260; BME 303; Pre- or co-req BIO 202 or 203 | BME 305: Biofluids | 3 | | | BME 371; BME 440 |
| | BME 303: Biomechanics | 3 | | | BME 305; BME420 | | BME Tech Elective 3 | 3 | | | |
| | BME 300: Tech Writing SBC WRTD | 0 | | | | BME Tech Elective 4 | 3 | | | | |
| | BME Tech Elective 1 (design)** | 3 | | | | SBC: HUM | 3 | | | | |
| | BME Tech Elective 2 (design) | 3 | | | | | | | | | |
| | Total | 16 | | | | Total | 15 | | | | |

| Fall, Senior Year | | | | | Spring, Senior Year | | | | | | |
|---|---------------------------------|-----------|--|--|---------------------|-------------------------|---------------------------------|---|--|--|--|
| BME major; U4 standing; BME 301 and 305 | BME 440: Senior Design 1 | 3 | | | | BME 440 | BME 441: Senior Design 2 | 3 | | | |
| | BME Tech Elective 5 | 3 | | | | Tech Elective 8 | 3 | | | | |
| | Tech Elective 6 | 3 | | | | Tech Elective 9 | 3 | | | | |
| | Tech Elective 7 | 3 | | | | Tech Elective 10 | 3 | | | | |
| | SBC: ARTS | 3 | | | | SBC: USA | 3 | | | | |
| | Total | 15 | | | | Total | 15 | | | | |

*Check Undergraduate Bulletin for Alternative Pre-requisites and Co-requisites and the most Up-to-Date Information

**3 BME TE required for U2, U3, U4; 2 must be design

Required Technical Electives (30 credits required) 30

Required Engineering (51 credits required) 52

Total credits for program 128

**5 BME TE required for U1 and transfers as of Fall 2017; 2 must be design

other TE may be engineering or non-engineering

Chemistry Sequence

•CHE 152 in lieu of CHE 131/132

(preferable for pre-medical students to take CHE 152/331/332)

Computer Programming

•ESG 111 or CSE 130 or ESE 124 in lieu of BME 120

To graduate, an overall GPA of 2.0 is required

SBC Requirements

•You need to take the following 6 SBC courses:

ARTS SBS
GLO USA
HUM WRT

•SBC courses can satisfy more than one SBC category

•Remaining SBC requirements are satisfied within the major requirements

QPS satisfied by calculus
SNW satisfied by chemistry
TECH satisfied by BME 100
STAS satisfied by BME 304
Category III and IV SBC satisfied by BME 440/441

NOTE: This flow chart is for planning purposes only. Variations to this flow chart may meet the requirements for graduation; check with your advisor and/or the undergraduate program coordinator.

This student has been cleared for the BME major

Undergraduate Program Director

Undergraduate Program Coordinator

DATE _____