ENGINEERING MAJOR (2022-2023)

FALL (16hrs)  SPRING (16hrs)  FALL (17hrs)  SPRING (16hrs)  FALL (16hrs)  SPRING (16hrs)

EGR 1101 NEW STUDENT EXPERIENCE  CSI 1401 OR CSI 1430 OR ELC 2337/2317  EGR 1302 MTH 1322  ME 3420 I&M LAB  ELC/ME/EGR ELECTIVE 3

EGR 1301 INTRO  EGR 1302 ANALYSIS  ME 2320 STATICS  ME 2345 THERMO  ELC/ME/EGR ELECTIVE 2

MTH 1321 CAL 1  MTH 1322 CAL 2  MTH 2321 CAL 3  MTH 3325 ODE  ME 2321 DYNAMICS

CHE 1301 CHEMISTRY  PHY 1420 PHYSICS 1  PHY 1430 PHYSICS 2  MTH 2311 LINEAR ALG

REL 1310 SCRIPTURES  REL 1350 HERITAGE  GTX 2301 ANCIENT  STA 3381 STATISTICS

ENG 1310 WRITING ★ PSC 1387 US CONST  GTX 2302 MEDIEVAL

CHA 10XX CHAPEL  CHAPEL

ME 2320 DYNAMICS  ME 2345 THERMO

EGR 1302 MTH 1322  MTH 1322 PHY 1420

EGR 1302 MTH 1322  MTH 1322 PHY 1420

ME 2321 DYNAMICS  ME 2345 THERMO

EGR 1302 MTH 1322  MTH 1322 PHY 1420

ME 2321 DYNAMICS  ME 2345 THERMO

ELC 2330/2310 CIRCUITS  ELC 3335 SIGNALS & SYSTEMS

CONCENTRATION 2

ELC/ME/EGR ELECTIVE 1

CONCENTRATION 1

ELC/ME/EGR ELECTIVE 2

CONCENTRATION 3

ELC/ME/EGR ELECTIVE 3

CONCENTRATION 6

EGR 3305 EGR ETHICS

PWR 3300 TECHNICAL WRITING

CONCENTRATION 5

EGR 3380 JR DESIGN

CONCENTRATION 4

EGR 4390 SR DESIGN

EGR 2108 ECONOMICS

LF 11XX FITNESS

LF 11XX FITNESS

EGR 2108 ECONOMICS

LF 11XX FITNESS

EGR 2108 ECONOMICS

LF 11XX FITNESS

EGR 3305 EGR ETHICS

NOTES: This flowchart is meant to be an advising tool. The BU Undergraduate Catalog serves as the student’s final authority on all degree requirements.
Baylor offers an ABET accredited degree in Engineering in addition to majors in Mechanical Engineering and Electrical and Computer Engineering. The major is simply “Engineering” and the degree awarded is the Bachelor of Science in Engineering (B.S.E.). The B.S.E is Baylor’s oldest engineering degree.

Engineering students take the same core courses common to the other engineering majors. The curriculum further builds on these fundamentals in follow-on and upper-level courses that deepen their engineering understanding and capabilities.

Because the B.S.E. curriculum is broader than that for traditional engineering majors, a number of employers and advisors are advocates of this approach. Also because of this adaptability it is well suited for students who have a well-honed but non-traditional career plan. B.S.E. students must have defined career aspirations that leverage the advantages of the B.S.E. curriculum. B.S.E. students must also maintain a competitive GPA and make good academic progress.

Complete one of the following:

a. A targeted set of courses in one of the listed concentration areas.

b. Any minor offered by Baylor with the exception of Engineering or Mathematics. (Note that an additional minor in Mathematics can be completed by the proper choice of math/science elective, but it does not satisfy this requirement.)

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### Biomedical Concentration

- Engineering Electives
  - ME 3320: Strength of Materials ...............3
  - ME 3322: Materials & Manufacturing ..........3
  - ELC 4351: Digital Signal Processing ..........3
  - BME 4370: Biomaterials .......................3

- Concentration Electives
  - CHE 1341 or CHE 4341: Biochemistry ....3
  - HP 1420 or BIO 4432: Human Anatomy ..........4
  - PUBH 3350 or BIO 3322: Physiology ..........3
  - BME 4374 (Biomechanics) or BME 4376 (Medical Devices Design) ..........3
  - BME 4353 (Image Formation) or BME 4372 (Bioinstrumentation) ..........3
  - ONE from following – EGR 3V95; BME 4353, 4357, 4372, 4374, 4376, 4V97 ..........3

### Geo-Petro Concentration

- Engineering Electives
  - ME 3320: Strength of Materials ...............3
  - ELC 4351: Dig Signal Processing ..........3

- Concentration Electives
  - ME 3321: Fluid Dynamics ..................3
  - GEO 4V90 (Numerical Modeling) or GEO 4459 (Engineering Geology) ..........3-4

### Environmental Concentration

- Engineering Electives
  - ME 3345: Advanced Thermodynamics ..........3
  - ELC 4351: Dig Signal Processing ..........3

- Concentration Electives
  - ME 3321: Fluid Dynamics ..................3
  - ME 4345: Heat Transfer ....................3

### Humanitarian Engr. Concentration

- Engineering Electives
  - ELC/ME/BME 33XX: Elective 1 ...............3
  - ELC/ME/BME 33XX: Elective 2 ..........3

- Concentration Electives
  - EGR 3315: Ethics for International Service ..........3
  - EGR 3302: Tech for Developing Countries ..........3
  - EGR 3115: International Experience ..........1
  - ME 4305: Sustainable Engineering ..........3
  - ONE from following: ENV 3333 (Watershed Assessment), ENV 4310 (World Food Problems), ENV 4345 (Water Management) ..........3
  - ONE from following: REL 3382 (Cross-Cultural Ministry), PSC/AST 3314 (Politics & Problems of Dev. Countries), REL 3345 (World Religions), ENV 4350 (Development & Indigenous Peoples), REL 4340 (Christian Missions) ..........3

- Minor Option
  - ELC/ME/BME 33XX: Elective 1 ...............3
  - ELC/ME/BME 33XX: Elective 2 ..........3

Students may choose any minor offered by Baylor with the exception of Engineering or Mathematics. Concentration electives will be fulfilled by courses required for the minor ...............18-24

(Note that an additional minor in Mathematics can be completed by the proper choice of math/science elective, but it does not satisfy this requirement.)