



This is not an official degree audit and it is subject to change. This chart is intended to be used by students who start out at Texas State. Please contact the College of Science and Engineering Undergraduate Advising Center for advising.

Note: In addition to major courses, students must also complete all core and minor requirements (if applicable) and any other requirements for graduation.

KEY:

Arrows indicate prerequisites.
Arrows with dotted lines indicate co-requisites.
Arrows with dash lines are recommended prerequisites.
Courses taught in specific semesters are indicated with the following codes:
F-Fall Su-Summer Session I or II
S-Spring

Required WI courses: MFGE 4390, 4391, 4395, 4396

Core courses must be completed:

— 6 credits Core 010
— 3 credits Core 020
— 6 credits Core 030
— 3 credits Core 040
— 3 credits Core 050
— 6 credits Core 060
— 6 credits Core 070
— 3 credits Core 080
— 6 credits Core 090,
091, 092, 093, 094, & 095

TXST options: [ENG 1310] and ENG 1320, ENG 3303, COMM 1310
MFGE required course: MATH 2471
MFGE required courses: PHYS 2325 + CHEM 1335 (or CHEM 1341)
TXST options: PHIL 1305 or 1320
TXST options: See catalog for options: <http://mycatalog.txstate.edu/undergraduate/general-education-core-curriculum>
TXST options: [HIST 1310/2327/2381] and [HIST 1320/2328/2382]
TXST options: POST 2310 & POSI 2320
MFGE required course: ECO 2301
MFGE required courses: MATH 2472 + PHYS 2326

US 1100 may be required for some students. Consult with an advisor regarding course choices.

Choose 12 credits MFGE Elective Options (check prerequisites):

Smart Manufacturing focus:

MFGE 4318 – Additive Manufacturing
 MFGE 4377 – Intro to Polymer
 Nanocomposites
 MFGE 4367 – Polymer Properties &
 Processing
 MFGE 4365 – Tool Design

Auto & Aero focus:

MFGE 4318 – Additive Manufacturing
 MFGE 4377 – Intro to Polymer
 Nanocomposites
 MFGE 4355 – Design of Machine Elements
 MFGE 4357 – Dynamics of Machinery
 MFGE 4367 – Polymer Properties &
 Processing
 MFGE 4315 – Energy & Thermofluids
 Engineering
 MFGE 4365 – Tool Design

Semiconductor Manufacturing focus:

MFGE 4318 – Additive Manufacturing
 MFGE 4315 – Energy & Thermofluids
 Engineering

Students may also choose a maximum of 3 credits from:

EE 4331 – Intro to Machine Learning for Engineering Applications
 EE 4392 – Microelectronics Manufacturing I
 EE 4394 – Microelectronics Manufacturing II
 IE 4355 – Facilities Planning
 IE 3360 – Human Factors Design
 TECH 4330 – Foundry & Heat Treatment

ENGR 3190 – Cooperative Education
 ENGR 3290 – Cooperative Education
 ENGR 4299 – Engineering Undergraduate Research
 ENGR 4395 – Independent Studies in Engineering

**CHEM 1335 or 1341
 Prerequisite Requirements:**

**Must complete 1 of the following mathematics
 prerequisites:**

- MATH 1315 or MATH 1317 or MATH 1319 or MATH 1329 or MATH 2321 or MATH 2417 or MATH 2471 - any with a grade of "C" or better
- ACT Mathematics score of 24 or better
- New ACT Mathematics score of 25 or better
- SAT Mathematics score of 550 or better
- Accuplacer College Mathematics score of 86 or better
- Compass College Algebra score of 46 or better
- Next-Generation Advanced Algebra and Functions Test of 263 or better

AND

**Must complete 1 of the following to demonstrate
 Chemistry Readiness:**

- Completion of Chemistry Readiness Exam with a score of 80 or better
- CHEM 1320 grade of "C" or better