BS – Manufacturing Engineering: Mechanical  
(SC-BS/MFGE/MSYS)  
2017 Catalog year: College of Science and Engineering

**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 corequisites.
- Arrows with dash lines are recommended prerequisites.
- Courses taught in specific semesters are indicated with the following codes:  
  - F - Fall
  - M - Summer Session I or II
  - S - Spring

- Required WI courses: MFGE 4395, 4396
- Additional WI courses: TECH 4330, IE 4360

<table>
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<tr>
<th>Freshman Fall semester</th>
<th>Freshman Spring semester</th>
<th>Sophomore Fall semester</th>
<th>Sophomore Spring semester</th>
<th>Junior Fall semester</th>
<th>Junior Spring semester</th>
<th>Senior Fall semester</th>
<th>Senior Spring semester</th>
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| MATH 2471 (F,S,Su)  
Calculus I | MATH 2472 (F,S)  
Calculus II | PHYS 1430 (F,S)  
Mechanics | ENGR 3375 (F,S,Su)  
Engineering Mechanics | ENGR 3315 (F,S)  
Engineering Economic Analysis | ENGR 3311 (F,S)  
Math 3375 also an acceptable prerequisite | MFGE 4365 (F,S)  
Tool Design | MFGE 4355 (S)  
Design of Machine Elements |
| CHEM 1341 (F,S,Su)  
& CHEM 1141 (F,S,Su)  
General Chemistry I | ENGR 2300 (F,S)  
Materials Engineering | PHYS 2425 (F,S)  
Electricity & Magnetism | | | | MFGE 4390  
Must be senior Manufacturing Engineering  
Senior Design I | MFGE 4391 (F,S)  
Must be senior Manufacturing Engineering  
Senior Design II |
| ENGR 1313 (F,S,Su)  
Engineering Design Graphics | MATH 3323 (F,S,Su)  
Differential Equations | IE 3320 (F,S)  
Engineering Statistics | IE 3330 (F,S)  
Quality Engineering | MATH 3377  
Linear Algebra | MFGE 4396 (F,S)  
Manufacturing Systems Design | IE 4355 (F,S)  
Facilities Planning  
Also requires ENGR 3315 | MFGE 4376 (F,S)  
Control Systems & Instrumentation  
Also requires PHYS 1430 |
| | | | | | MFGE 3316 (F,S)  
Computer Aided Design &  
Mfg | MFGE 4395 (F,S)  
Creditable for Industrial Manufacturing | |

**Choose 5 hours mechanical systems elective:**
- TECH 4330 (F) – Foundry & Heat Treatment
- MFGE 4367 (S) – Polymer Properties and Processing
- MFGE 4392 (F,S) – Microelectronics Manufacturing I
- MFGE 4394 (F) – Microelectronics Manufacturing II
- MFGE 4399A (F) – Reverse Eng & Rapid Prototyping
- MFGE 4399B (F) – Intro to Reinforced Polymer Nanocomposites in Industrial Applications
- MFGE 4399C – Intro to Industrial Robotics
- Must with prior approval of Manufacturing Program Coordinator IE 4330, 4360, 4399A, TECH 4392, TECH 4380 (per Dr. Tater 9/1/16)

**Check prerequisites**

**Core courses must be completed:**
- US 1100
- COMM 1310
- PHIL 1305 or 1320
- ENG 1310
- ENG 1320
- ENG 2310-2360
- HIST 1310
- HIST 1320
- ART/DAN/MU/TH 2313
- POSI 2310
- POSI 2320
- ECO 2301

US 1100 & ENG 1310 recommended for first semester. HIST 1310/1320 not recommended for first semester.