**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 Science Advising Center, Centennial Hall, room 202, Phone 512-245-1315 or the Ingram School of Engineering, Roy F. Mitte Building, Phone 512-245-1826 for advising.

**KEY:**
- Arrows indicate prerequisites.
- Arrows with dotted lines indicate co-requisites.
- Courses taught specific semesters are indicated with the following codes: F-Fall, S-Spring, SI-Summer Session I, SII-Summer Session II

<table>
<thead>
<tr>
<th>Freshman Fall Semester</th>
<th>Freshman Spring Semester</th>
<th>Freshman Summer Session I &amp; II</th>
<th>Sophomore Fall Semester</th>
<th>Sophomore Spring Semester</th>
<th>Sophomore Summer Session I &amp; II</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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<tbody>
<tr>
<td>ENG 1310</td>
<td>ENG 1320</td>
<td>PFW one course</td>
<td>ECO 2301</td>
<td>POSI 2310</td>
<td>POSI 2320</td>
<td>3 hrs of ART/DAN/MU/TH 2313</td>
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<td>COMM 1310</td>
<td>HIST 1310</td>
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<tr>
<td>3 hours of ENG 2310-2360</td>
<td>CS 1428 (F/S/SI/SII)</td>
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<tr>
<td>PHYS 1430 (F/S)</td>
<td>PHYS 2425 (F/S)</td>
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<td>MATH 2471 (F/S/SI)</td>
<td>MATH 2472 (F/S/SI)</td>
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<td>CHEM 1341 CHEM 1141 (F/S/SI/SII)</td>
<td>ENGR 2300 (F/S/SI)</td>
<td>EE 2400 (F/S/SII)</td>
<td>EE 2420 (F/S/SII)</td>
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<td>MATH 3323 (F/S/SI)</td>
<td>MATH 3375 (F/S)</td>
<td>EE 3320 (F/S/SII)</td>
<td>EE 3340 (F/S)</td>
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<td>EE 3400 (F/S/SII)</td>
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<td>EE 3350 (F/S/SII)</td>
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<td>PHYS 2425 (F/S)</td>
<td>EE 3352 (F/S)</td>
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<td>CS 1428 (F/S/SI/SII)</td>
<td>EE 4300 (F/S/SI)</td>
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<tr>
<td>EE 4355 (S) OR MFGE 4394 (F) (prereqs on reverse)</td>
<td>EE 4390 (F/S)</td>
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<td>EE 4353 (F), EE 4354 (S)</td>
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<td>MFGE 4392 (S) (prereq on reverse)</td>
<td>EE 4352 (F/S)</td>
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<td>MFGE 4394 (F) (prereqs on reverse)</td>
<td>ENGR 3315 (F/S/SI)</td>
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15 hours 17 hours 10 hours 18 hours 17 hours 4 hours 17 hours 15 hours 12-15 hours 9-12 hours
### General Education Core Requirements

**Communication**
- English 1310, 1320
- Speech Communications 1310

**Mathematics**
- Math 2471

**Natural Science**
- Chemistry 1341, 1141
- Physics 1430

**Humanities and Visual and Performing Arts**
- Art, Dance, Music, or Theatre Arts 2313
- Philosophy 1305 or 1320
- English Literature (3 hours)

**Social and Behavioral Sciences**
- History 1310, 1320
- Political Science 2310, 2320
- Economics 2301

**Texas State Component**
- University Seminar 1100 (Freshmen only)
- Physical Fitness (2 Courses)

### Electrical Engineering - Micro & Nano Devices and Systems Requirements

**Computer Sci** 1428 Foundations of Computer Science

**Electrical Engr** 2400 Introduction to Electrical Engineering
**Electrical Engr** 2420 Digital Logic
**Electrical Engr** 3340 Fields & Waves
**Electrical Engr** 3350 Electronics I
**Electrical Engr** 3355 Solid State Devices
**Electrical Engr** 3370 Signals and Systems
**Electrical Engr** 3400 Circuit Analysis
**Electrical Engr** 3420 Microprocessors
**Electrical Engr** 4350 Electronics II
**Electrical Engr** 4352 Introduction to VLSI Design
**Electrical Engr** 4390 Electrical Engineering Design I
**Electrical Engr** 4391 Electrical Engineering Design II

**Engineering** 2300 Materials Engineering
**Engineering** 3315 Engineering Economic Analysis

**Industrial Engr** 3320 Engineering Statistics

**Manufacturing** 4376 Control Systems and Instrumentation
**Manufacturing** 4392 Microelectronics Manufacturing I (Chem 1341)

**Mathematics** 2472 Calculus II
**Mathematics** 3323 Differential Equations
**Mathematics** 3373 Calculus III
**Mathematics** 3375 Engineering Mechanics
**Mathematics** 3377 Linear Algebra

**Physics** 2425 Electricity & Magnetism
**Physics** 2435 Waves & Heat

Choose 3 hours from:
**Electrical Engr** 4351 Fundamentals of Electrocereamics (ENGR 2300, 2.25 GPA) [EE 3355]
**Electrical Engr** 4353 Fundamentals of Advanced CMOS Tech (EE 3355)
**Electrical Engr** 4354 Flexible Electronics (EE 3350)
**Electrical Engr** 4358 Intro to MicroelectromechanicalSystems (MFGE 4392)

Choose 3 hours from:
**Electrical Engr** 4355 Analog and Mixed Signal Design (EE 3370 & EE 4350)
**Manufacturing** 4394 Microelectronics Manufacturing II (MFGE 4392)

### Course Outline

#### FRESHMAN YEAR

- Communications 1310
- English 1310, 1320
- English Literature (1 course)
- History 1310, 1320
- Philosophy 1305 or 1320
- Physical Fitness (1 course)
- University Seminar 1100
- Chemistry 1341, 1141
- Engineering 2300
- Mathematics 2471, 2472
- Physics 1430

#### SOPHOMORE YEAR

- Economics 2301
- Physical Fitness (1 course)
- Political Science 2310
- Electrical Engr 2400, 2420
- Computer Science 1428
- Mathematics 3323, 3373, 3375, 3377
- Physics 2425, 2435

#### JUNIOR YEAR

- Art, Dance, Music, or Theatre Arts 2313
- Political Science 2320
- Electrical Engr 3400, 3420, 3350, 3355, 3370
- Industrial Engineering 3320
- Manufacturing 4392

#### SENIOR YEAR

- Electrical Engr 4350, 4352, 4390, 4391
- Electrical Engr 4351, 4353, 4345 OR 4358
- Electrical Engr 4355 OR Manufacturing 4394
- Engineering 3315
- Manufacturing 4376

**Legend:**
- ( ) – prerequisite
- [ ] - corequisite