

Texas State University
College of Science & Engineering
Ingram School of Engineering
2014-2016 Catalog

****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.

For current or previous flowcharts, please visit
www.engineering.txstate.edu/degrees-programs/undergraduate

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 (Please note that semester offerings are subject to change at any time. This flowchart does NOT guarantee when courses will or will not be offered.)

[illegible]

General Education Core Requirements

Communication
English 1310, 1320
Speech Communications 1310

Mathematics
Math 2471

Natural Science
Chemistry 1341, 1141

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 or 2314

Texas State Component
University Seminar 1100

Course Outline

FRESHMAN YEAR

Chemistry 1141, 1341
Engineering 1313, 2300
English 1310, 1320
Math 2471, 2472
Physics 1430
Speech Communication 1310
University Seminar 1100

SOPHOMORE YEAR

Computer Science 1428
Economics 2301 or 2314
History 1310, 1320
Industrial Engineering 3320, 3330
Manufacturing 2332
Math 3323, 3375, 3377
Philosophy 1305 or 1320
Physics 2425

JUNIOR YEAR

Engineering 3311, 3315, 3373
English Literature (3 hrs)
Industrial Engineering 3360
Manufacturing 3316, 4365, 4396
Physics 3315
Political Science 2310

SENIOR YEAR

Art, Dance, Music, or
Theatre Arts 2313
Electives (8 hrs)
Industrial Engineering 4355
Manufacturing 4355, 4357, 4363, 4376, 4395
Political Science 2320

Manufacturing Engineering-Mechanical Systems Requirements

Computer Sci.	1428	Foundations of Computer Science I (Math 1315)
Engineering	1313	Engineering Design Graphics
Engineering	2300	Materials Engineering (Chem 1341)
Engineering	3311	Mechanics of Materials (Math 3375)
Engineering	3315	Engineering Economic Analysis (Math 1315)
Engineering	3373	Circuits and Devices (Phys 2425)
Industrial Engr	3320	Engineering Statistics (Math 2472)
Industrial Engr	3330	Quality Engineering (IE 3320)
Industrial Engr	3360	Methods Engineering and Ergonomics (IE 3320)
Industrial Engr	4355	Facilities Design
Manufacturing	2332	Materials Selection and Manufacturing Processes [Engr 2300]
Manufacturing	3316	Computer Aided Design and Manufacturing (Engr 1313 & Mfge 2332)
Manufacturing	4355	Design of Machine Elements (Engr 3311)
Manufacturing	4357	Dynamics of Machinery (Math 3323 & Math 3375)
Manufacturing	4363	Concurrent Process Engineering (Engr 3311 & Mfge 4365) [IE 3330]
Manufacturing	4365	Tool Design (Mfge 3316)
Manufacturing	4376	Control Systems and Instrumentation (Mfge 2332 & Phys 1430) [Math 3323]
Manufacturing	4395	Computer Integrated Manufacturing (Mfge 3316)
Manufacturing	4396	Manufacturing Systems Design (IE 3320)
Mathematics	2472	Calculus II (Math 2471)
Mathematics	3323	Differential Equations (Math 2472)
Mathematics	3375	Engineering Mechanics (Phys 1430) [Math 2472]
Mathematics	3377	Linear Algebra (Math 2472)
Physics	1430	Mechanics [Math 2471]
Physics	2425	Electricity & Magnetism (Phys 1430) [Math 2472]
Physics	3315	Thermodynamics (Math 3323 & Phys 2435)

Electives (8 hours)

Technology	4330	Foundry and Heat Treatment (Instructor Approval)
Manufacturing	4367	Polymer Properties and Processing (Mfge 2332)
Manufacturing	4392	Microelectronics Manufacturing I (Chem 1141 & 1341)
Manufacturing	4399A	Reverse Engineering and Rapid Prototyping (Mfge 3316)
Manufacturing	4399B	Introduction to Reinforced Polymer Nanocomposites in Industrial Applications (Engr 2300)
Manufacturing	4399C	Introduction to Industrial Robotics (Math 3377, Mfge 4376 & Phys 1430)

Legend:

() – prerequisites
[] – corequisites