

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

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.)



F L P S

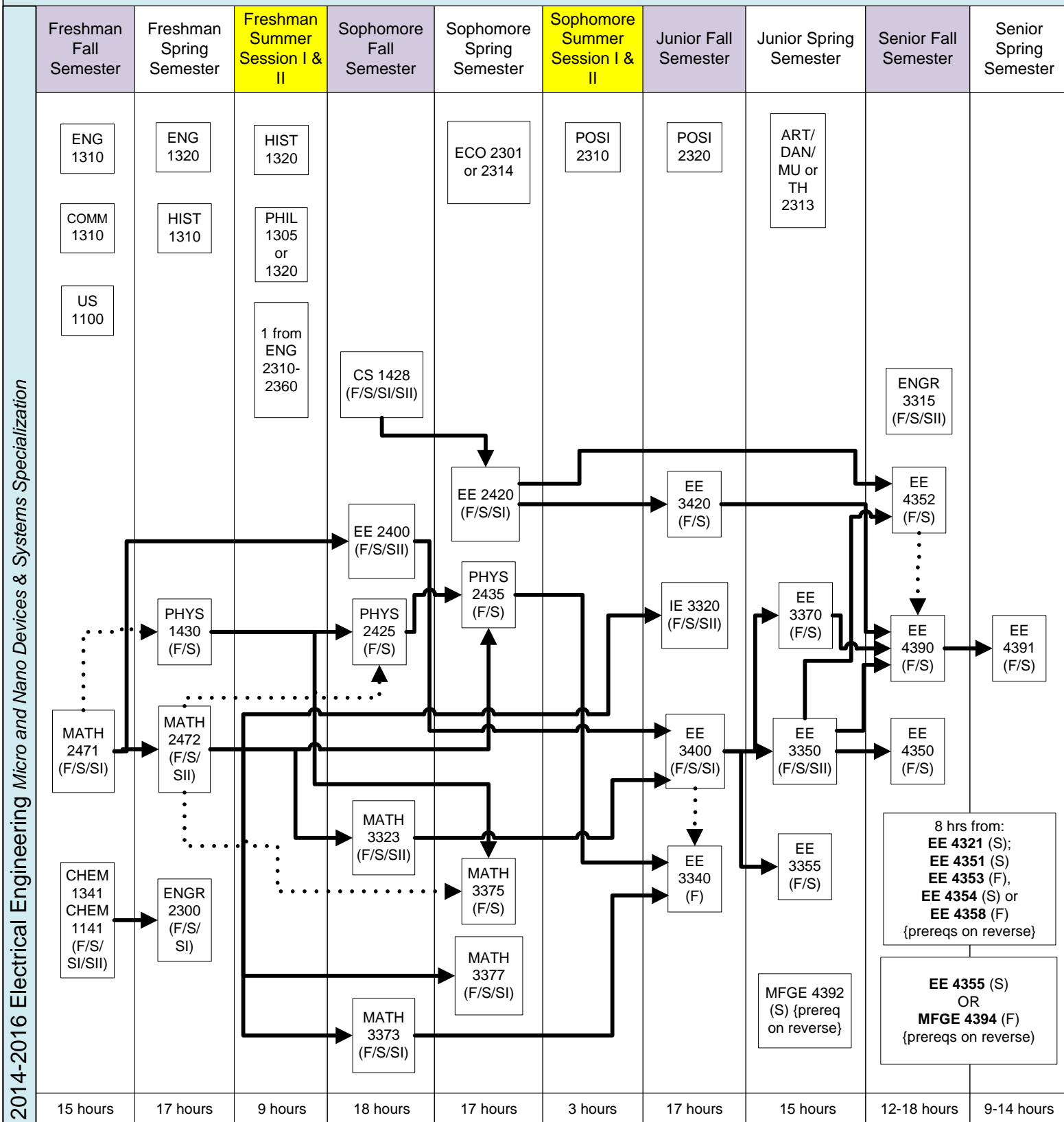
****This is not an official degree audit and it is subject to change.****

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.



2014-2016 Electrical Engineering Micro and Nano Devices & Systems Specialization

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 or 2314

Texas State Component
University Seminar 1100

Electrical Engineering- Micro & Nano Devices and Systems Requirements

Computer Sci 1428 Foundations of Computer Science

Electrical Engr 2400 Circuits I
Electrical Engr 2420 Digital Logic
Electrical Engr 3340 Electromagnetics
Electrical Engr 3350 Electronics I
Electrical Engr 3355 Solid State Devices
Electrical Engr 3370 Signals and Systems
Electrical Engr 3400 Circuits II
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 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 8 hours from:

Electrical Engr 4321 Digital System Design Using HDL
(EE 3420)

Electrical Engr 4351 Fundamentals of Electroceramics
(ENGR 2300, 2.25 GPA) [EE 3355]

Electrical Engr 4353 Fundamentals of Advanced CMOS Tech
(EE 3355)

Electrical Engr 4354 Flexible Electronics (EE 3350, 3355 &
EE 4350)

Electrical Engr 4358 Intro to Microelectromechanical Systems
[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
University Seminar 1100
Chemistry 1341, 1141
Engineering 2300
Mathematics 2471, 2472
Physics 1430

SOPHOMORE YEAR

Economics 2301 or 2314
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, 3340, 3420, 3350, 3355, 3370
Industrial Engineering 3320
Manufacturing 4392

SENIOR YEAR

Electrical Engr 4350, 4352, 4390, 4391
Electrical Engr 2 from: 4321, 4351, 4353, 4345 OR 4358
Electrical Engr 4355 OR Manufacturing 4394
Engineering 3315

Legend:

() – prerequisite
[] - corequisite