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
  - **S** - Spring
  - **Su** - Summer Session I or II

**Required WI courses:** ENG 3303

**Additional WI courses:** MATH 4337A, 4337B, 4337C

**Core courses must be completed:**
- Communication Component Code 010 (6 cr)
- Mathematics Component Code 020 (3 cr)
- Life & Physical Science Component Code 030 (6 cr)
- Language, Philosophy, and Culture Component Code 040 (3 cr)
- Creative Arts Component Code 050 (3 cr)
- American History Component Code 060 (6 cr)
- Government/Political Science Component Code 070 (6 cr)
- Social and Behavioral Sciences Component Code 080 (3 cr)
- Component Area Option Codes 090, 091, 092, 093, and 094 (6 cr)

US 1100 may be required for some students. Some majors require specific courses to be chosen from a component area. Consult with an advisor to determine the most expedient way to complete core and major-specific requirements.

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**BS – Applied Math (SC-BS/APMA)**

**2021 Catalog year: College of Science and Engineering**

**Freshman**

- **Fall semester**
  - 3 hours of natural science (see advisor for options)

**Sophomore**

- **Fall semester**
  - 3 hours of natural science (see advisor for options)
  - MATH 2393 (F,S,Su) Calculus III (replaced MATH 3373)
tccns: MATH 2413

  
  MATH 2471 (F,S,Su) Calculus I
  tccns: MATH 2411

- **Spring semester**
  - MATH 2472 (F,S,Su) Calculus II
  tccns: MATH 2412

**Junior**

- **Fall semester**
  - CS 1428 (F,S,Su) Foundations of Computer Science I
tccns: COSC 1437/1337

  
  MATH 3383 (F) Numerical Analysis I

  
  MATH 2358 (F,S,Su) Discrete Math I
tccns: MATH 2305

  
  MATH 3323 (F,S,Su) Differential Equations

  
  MATH 3305 (F,S,Su) Intro to Probability & Statistics

  
  MATH 3330 (F,S,Su) Intro to Advanced Math

**Spring semester**

- ENG 3303 Technical Writing

**Senior**

- **Fall semester**
  - CS 2308 (F,S,Su) Foundations of Computer Science II
tccns: COSC 2436/2336

  
  MATH 3306 (S) Fourier Series

  
  MATH 4305 (S) Probability & Statistics

  
  MATH 4306 (F,S) Modern Algebra

  
  MATH 4315 (F,S) Analysis II

  
  MATH 4327 – Introduction to Complex Analysis & App

  
  MATH 4337C – Numerical Methods for Ordinary Diff Equ

  
  MATH 4350 (S) Combinatorics

  
  MATH 4383 – Numerical Analysis II

  
  MATH 4393 – Intro to Finite Element Methods

**Minor and/or elective courses (as needed, see advisor)**

- MATH 3376 (F,S) Applied Linear Algebra (preferred)
- OR
- MATH 3377 Linear Algebra (student may not receive credit for both)

- 6 hours MATH advanced electives:
  - (check prerequisites)
  - ENGR 2301 – Engineering Mechanics (replaced ENGR 3375)
  - MATH 3348 (F) - Deterministic Operations Research
  - MATH 3398 (F,S,Su) – Discrete Math II
  - MATH 4305 (S) – Probability & Statistics
  - MATH 4306 (S) – Fourier Series
  - MATH 4315 (F,S) – Modern Algebra
  - MATH 4316 – Analysis II
  - MATH 4327 – Introduction to Complex Analysis & App
  - MATH 4336 (see dept)
  - MATH 4336 – Studies in Applied Math
  - MATH 4337A – Topological Data Analysis
  - MATH 4337B – Research in Discrete Mathematics
  - MATH 4337C – Numerical Methods for Ordinary Diff Equ
  - MATH 4350 (S) – Combinatorics
  - MATH 4383 – Numerical Analysis II
  - MATH 4393 – Intro to Finite Element Methods