BS – Applied Math

(Preparation for BS – Applied Math)

**Academic Year:** 2023 Catalog year: College of Science and Engineering

This chart is intended to be used by students who start out at Texas State. Please contact the Undergraduate Advising Center for advising.

**Key:**
- Arrows indicate prerequisites.
- Arrows with dashes indicate corequisites.
- Arrows with dotted lines indicate recommended prerequisites.
- Courses taught in specific semesters are indicated with arrows with dashed lines.
- Arrows with dashed lines are recommended prerequisites.

**Note:** In addition to major courses, students must also complete all core and minor requirements (if applicable) and any other requirements for graduation.

**Core courses must be completed:**
- 6 credits Core 010
- 3 credits Core 020
- 6 credits Core 030
- 3 credits Core 040
- 3 credits Core 050
- 6 credits Core 060
- 6 credits Core 070
- 3 credits Core 080
- 6 credits Core 090, 091, 092, 093, and 094

See catalog for options: http://mycatalog.txstate.edu/undergraduate/general-education-core-curriculum/

**US 1100** may be required for some students. Consult an advisor regarding course choices.

**Course abbreviations:**
- ENG 3303 - Technical Writing
- MATH 2471 – Calculus I
- MATH 2472 – Calculus II
- MATH 2473 – Calculus III
- MATH 3305 – Intro to Probability & Statistics
- MATH 3306 – Intro to Advanced Math
- MATH 3307 – Linear Algebra
- MATH 3308 – Numerical Analysis I
- MATH 3309 – Analysis I
- MATH 3310 – Complex Analysis & App
- MATH 3311 – Intro to Complex Analysis & App
- MATH 3312 – Discrete Math I
- MATH 3313 – Discrete Math II
- MATH 4305 – Modern Algebra (F,S)
- MATH 4306 – Linear Algebra I (F,S)
- MATH 4307 – Modern Algebra I (F,S)
- MATH 4308 – Modern Algebra II (F,S)
- MATH 4315 – Analysis II (F,S)
- MATH 4320 – Intro to Advanced Math
- MATH 4327 – Introduction to Complex Analysis & App
- MATH 4336 – Studies in Applied Math
- MATH 4350 – Combinatorics
- MATH 4383 – Numerical Analysis II
- MATH 4393 – Intro to Finite Element Methods
- MATH 4397 – Linear Algebra
- MATH 4398 – Intro to Advanced Math

**Additional WI courses:**
- Discuss with advisor to complete WI requirement

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

**6 hours MATH advanced electives:**
- (check prerequisites)
  - ENGR 2301 – Statics (F,S,Su)
  - MATH 3348 – Deterministic Operations Research (F)
  - MATH 3398 – Discrete Math II (F,S,Su)
  - MATH 4305 – Probability & Statistics (F,S)
  - MATH 4306 – Fourier Series (S)
  - MATH 4307 – Modern Algebra II (F,S)
  - MATH 4315 – Analysis II (F,S)
  - MATH 4320 – Intro to Advanced Math
  - MATH 4327 – Introduction to Complex Analysis & App
  - MATH 4336 – Studies in Applied Math
  - MATH 4350 – Combinatorics
  - MATH 4383 – Numerical Analysis II
  - MATH 4393 – Intro to Finite Element Methods

**TCCNS options:**
- MATH 2305 – Foundations of Computer Science I
- MATH 2306 – Foundations of Computer Science II
- COSC 1437/1337 – Foundations of Computer Science I
- COSC 2436/2336 – Foundations of Computer Science II

**Additional information:**
- 3 hours of natural science (see advisor for options)
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