Bachelor of Arts with a major in Mathematics
2020-2021 Checklist

University Core Requirements

Communication (English Composition):
- ENGL 1310: College Writing I
- ENGL 1320: College Writing II or TECM 2700: Technical Writing

Creative Arts:
- "Choose from Catalog"

Language, Philosophy, & Culture:
- "Choose from Catalog"

American History to 1865:
- HIST 2610

American History since 1865:
- HIST 2620

Federal Government/Political Science:
- PSCI 2305

State Government/Political Science:
- PSCI 2306

Social & Behavioral Sciences:
- "Choose from Catalog"

**Math, Science, & Component Area core requirements will be completed with major courses.**

College of Science Requirements

Algebra Proficiency
To be admitted into the College of Science, students must complete College Algebra with a grade of C or higher OR demonstrate proficiency through a math placement exam.

COS Breadth
Students must complete 12 hours from subjects outside of the College of Science. (May not also apply to University Core.)

Major Requirements

- MATH 1710: Calculus 1
- MATH 1720: Calculus 2
- MATH 2000: Discrete Math
- MATH 2700: Linear Algebra and Vector Geometry
- MATH 2730: Multivariable Calculus
- MATH 3000: Real Analysis I
- MATH 3510: Introduction to Abstract Algebra I OR MATH 3610: Real Analysis II

Breadth and Depth Requirements: Pick two courses from one area and one course from the other three areas.

Analysis:
- MATH 3350: Introduction to Numerical Analysis
- MATH 3410: Differential Equations I
- MATH 3420: Differential Equations II
- MATH 3610: Real Analysis II
- MATH 3740: Vector Calculus
- MATH 4100: Fourier Analysis
- MATH 4200: Dynamical Systems
- MATH 4520: Introduction to Functions of a Complex Variable

Major Requirements (continued)

- Algebra:
  - MATH 3400: Number Theory
  - MATH 3510: Introduction to Abstract Algebra I
  - MATH 4010: Introduction to Metamathematics
  - MATH 4430: Introduction to Graph Theory
  - MATH 4450: Introduction to the Theory of Matrices
  - MATH 4510: Abstract Algebra II

- Probability/Statistics:
  - MATH 3680: Applied Statistics
  - MATH 4610: Probability
  - MATH 4650: Statistics

- Geometry/Topology:
  - MATH 3740: Vector Calculus
  - MATH 4060: Foundations of Geometry
  - MATH 4500: Introduction to Topology

- 3 additional hours of math courses numbered 3350 or above
- Minimum of 2.0 GPA in math courses numbered 3350 or above

Minor Requirements

- One of the following is required:
  - Minor of 18 hours. A minor in Statistics does not fulfill this requirement.
  - Completion of a second major in addition to Mathematics.
  - Completion of the Actuarial Science certificate.

Required Courses for Degree

- Foreign Language Requirement Options:
  - 6 hours in one language – Arabic, Chinese, French, German, Italian, Japanese, Latin, Russian, Spanish, or American Sign Language

  OR

  - 6 hours chosen from technical writing courses – TECM 2700, 4180, 4190, 4250, or 4700

- CSCE 1010: Discovering Computer Science OR CSCE 1030: Computer Science I

- Three lab sciences; see advisor for acceptable combinations
  - CHEM 1410 & 1430: General Chemistry I & Laboratory
  - CHEM 1420 & 1440: General Chemistry II & Laboratory
  - PHYS 1710 & 1730: Mechanics & Laboratory
  - PHYS 2220 & 2240: Electricity and Magnetism & Laboratory
  - BIOL 1710 & 1760: Biology for Science Majors I & Laboratory

Additional Requirements

- Minimum of 120 total hours
- Minimum of 36 advanced hours
- Check with an advisor to see if electives are necessary to reach minimums

College of Science Advising Center
Hickory Hall 283; (940) 369-8606; COSAdvising@unt.edu

This is an unofficial simplified checklist effective Fall 2020. Degree requirements are subject to change, please check with an advisor for any updates.