Bachelor of Science 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

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.

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 three courses from one area and one course from the other three areas.

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

Algebra: (MATH 3510 required if chosen for depth)
- 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

Major Requirements (continued)

- 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

- 6 additional hours of math courses numbered MATH 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

- One of the following laboratory science options; see advisor for guidance on best options
  - CHEM 1410 & 1430: General Chemistry I & Laboratory
  - CHEM 1420 & 1440: General Chemistry II & Laboratory
  - Any laboratory science

OR
- PHYS 1710 & 1730: Mechanics & Laboratory
- PHYS 2220 & 2240: Electricity and Magnetism & Laboratory
- Any laboratory science

OR
- BIOL 1710 & 1720 & 1760: Biology for Science Majors I & II & Laboratory
- PHYS 1710 & 1730: Mechanics & Laboratory OR CHEM 1410 & 1430: General Chemistry I & Laboratory

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

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

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

*Link to Catalog: http://catalog.unt.edu/content.php?catoid=23&navoid=2482