

# Bachelor of Science in Mathematics

## Degree Requirements

Candidates for the Bachelor of Science in Mathematics must meet the following requirements.

- 1. Hours Required for the Degree:** Completion of a minimum of 130 total semester hours; 42 must be advanced.
- 2. General University Requirements:** See “General Degree Requirements” in the Academics section of this catalog.
- 3. College of Arts and Sciences Core Curriculum:** Minimum 61 hours (includes requirements of University Core Curriculum). See “Arts and Sciences Core Curriculum” in the College of Arts and Sciences section of this catalog for specific core requirements and list of approved courses.
- 4. Major Requirements:** 43 hours of which 24 must be advanced, including MATH 1710, 1720, 2510, 2520, 2700, 2730, 3410, 3510, 4500, 4520, and 4610, plus one course from each of the three groups below:
  - Group A:** MATH 3740, 4100, 4650
  - Group B:** MATH 3400, 3520, 4200
  - Group C:** MATH 3350, 3420, 4450
- 5. Minor Requirements:** A minor in one of the following areas of study:
  - Biology:** BIOL 1710/1730, 1720/1740, 3050, 3450, 3510 and 6 additional hours of advanced biology other than 4700; CHEM 1410- or 1413-1430, 1420- or 1423-1440 and 3600, or both 2370 and 2380.
  - Chemistry:** CHEM 1410- or 1413-1430, 1420- or 1423-1440, 2370, 2380, 3450, 3510, and 3520; PHYS 1710-1730 and 2220-2240.
  - Computer Science:** 1110, 1120, 2010, plus 15 advanced hours.
  - Physics:** PHYS 1710-1730, 2220-2240, 3010-3030, 3210, and 9 additional hours of advanced physics.
- 6. Electives:** See four-year plan.
- 7. Other Course Requirements:** The laboratory science requirement must be met with the following: PHYS 1710-1730, 2220-2240 or CHEM 1410-1430, 1420-1440, and either BIOL 1710/1730, 1720/1740 or GEOL 1610, 1620.
- 8. Other Requirements:** Bachelor’s degree candidates in mathematics must present at least a 2.0 grade point average on all mathematics courses above 3150.

See the chair of the mathematics department or the undergraduate adviser for a degree plan during the first year of study at UNT.

In order to teach mathematics at the secondary level, students are required to obtain a bachelors degree in mathematics. In addition, 21 hours in the College of Education (including student teaching) are required.

Students taking mathematics courses at the 3000-level or above are expected to be competent in computer programming, using languages such as BASIC, C, Fortran, or PASCAL. This competency can be obtained through completion of CSCI 1110.

It is recommended that the required foreign language be German, French, Russian, or Spanish. Students wishing to take some other language must consult the chair of the mathematics department.

DRED (Traffic Safety) courses may not be used to satisfy any portion of a degree in the College of Arts and Sciences.

## BS in Mathematics

*Following is **one** suggested four-year degree plan. Students are encouraged to see their adviser each semester for help with program decisions and enrollment.*

### BS in Mathematics

#### FRESHMAN YEAR

FALL	HOURS
CSCI 1110, Program Development	3
ENGL 1310, College Writing I	3
LANG 2040, Foreign Language (intermediate) <sup>3, 13</sup>	3
MATH 1710, Calculus I <sup>4</sup>	4
Laboratory Science <sup>56</sup>	<u>4</u>
Total	17

#### FRESHMAN YEAR

SPRING	HOURS
ECON 1110, Principles of Macroeconomics	3
ENGL 1320, College Writing II <sup>6</sup>	3
LANG 2050, Foreign Language (intermediate) <sup>3, 13</sup>	3
MATH 1720, Calculus II	3
Laboratory Science <sup>56</sup>	<u>4</u>
Total	16

#### SOPHOMORE YEAR

FALL	HOURS
ENGL 2210, World Literature I	3
HIST 2610, United States History to 1865 <sup>12</sup>	3
MATH 2510, Real Analysis I	3
MATH 2730, Multivariable Calculus	3
Laboratory Science <sup>56</sup>	4
Wellness <sup>11</sup>	<u>2-3</u>
Total	18-19

#### SOPHOMORE YEAR

SPRING	HOURS
ENGL 2220, World Literature II	3
HIST 2620, United States History Since 1865 <sup>12</sup>	3
MATH 2520, Real Analysis II	3
MATH 2700, Linear Algebra and Vector Geometry	3
Laboratory Science <sup>56</sup>	4
Understanding of Ideas and Values <sup>8</sup>	<u>3</u>
Total	19

#### JUNIOR YEAR

FALL	HOURS
MATH 3510, Introduction to Abstract Algebra I <sup>54</sup>	3
MATH 4610, Probability	3
PSCI 1040, American Government	3
Minor Concentration (elective) <sup>16, 55</sup>	<u>6</u>
Total	15

#### JUNIOR YEAR

SPRING	HOURS
MATH 3410, Differential Equations I	3
MATH 4500, Introduction to Topology	3
PSCI 1050, American Government	3
Minor Concentration (elective) <sup>16, 55</sup>	6
Oral Communication <sup>2</sup>	<u>3</u>
Total	18

#### SENIOR YEAR

FALL	HOURS
MATH 4520, Introduction to Functions of a Complex Variable	3
MATH (Groups A, B, or C)	3
Minor Concentration	6
Visual and Performing Arts <sup>7</sup>	<u>3</u>
Total	15

#### SENIOR YEAR

SPRING	HOURS
MATH (Groups A, B, or C)	6
Minor Concentration <sup>16, 55</sup>	9
Understanding of Ideas and Values <sup>8</sup>	<u>3</u>
Total	18

*Note: Some courses may require prerequisites not listed.  
See Arts and Sciences footnotes.*