

# College of Science

## B.A. Mathematics

### 2019-2020 Texas Common Course Numbering System Transfer Guide



This four-year plan provides a model for on-time completion of this UNT program using as many TCCNS courses as possible. The four-year plan also shows the first point when no TCCNS options are available for this program. See the current [Undergraduate Catalog](#) for course prerequisites. Course availability at UNT is subject to change, and the plan shown below may change based on updates to UNT's course offerings.

YEAR	FALL SEMESTER		SPRING SEMESTER	
	UNT Requirement	TCCNS Option	UNT Requirement	TCCNS Option
FRESHMAN	ENGL 1310	ENGL 1301	CSCE 1020 or CSCE 1030	COSC 1315 or 1415 or COSC 1336 or 1436
	Elective	Consult UNT advisor		
	MATH 1710	MATH 2313 or 2413 or 2513	MATH 1720	MATH 2314 or 2414
	PSCI 2305	GOVT 2305	TECM 2700	ENGL 2311
	MATH 2000	MATH 2305 or 2405	B.A. Math Major: Laboratory Science	<a href="#">See list of approved courses</a>

YEAR	FALL SEMESTER		SPRING SEMESTER	
	UNT Requirement	TCCNS Option	UNT Requirement	TCCNS Option
SOPHOMORE	UNT Core: American History	<a href="#">See list of approved courses</a>	UNT Core: American History	<a href="#">See list of approved courses</a>
	MATH 2700	MATH 2318 or 2418	MATH 3000	None
	MATH 2730	MATH 2315 or 2415	Advanced MATH Depth Elective	
	B.A. Math Major: Laboratory Science	<a href="#">See list of approved courses</a>	B.A. Math Major: Laboratory Science	<a href="#">See list of approved courses</a>
	UNT Core: Language, Philosophy and Culture	<a href="#">See list of approved courses</a>	Minor	Consult UNT advisor

YEAR	FALL SEMESTER		SPRING SEMESTER	
	UNT Requirement	TCCNS Option	UNT Requirement	TCCNS Option
JUNIOR	MATH 3510 or MATH 3610	None	Minor	Consult UNT advisor
	Advanced MATH Breadth Elective		Elective	Consult UNT advisor
	PSCI 2306	GOVT 2306	Advanced MATH Depth or Breadth Elective	None
	Minor	Consult UNT advisor	Minor (advanced)	
	Elective	Consult UNT advisor	UNT Core: Social and Behavioral Science	<a href="#">See list of approved courses</a>

YEAR	FALL SEMESTER		SPRING SEMESTER	
	UNT Requirement	TCCNS Option	UNT Requirement	TCCNS Option
SENIOR	Advanced MATH Breadth Elective	None	MATH Elective (3350 or higher)	None
	Elective (advanced)		Elective (advanced)	
	Minor (advanced)		Elective (advanced)	
	Foreign Language Option I or II	Consult UNT advisor	Elective	Consult UNT advisor
	UNT Core: Creative Arts	<a href="#">See list of approved courses</a>	Minor	Consult UNT advisor

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Students may not declare a major within the College of Science until they have completed MATH 1100 or have demonstrated proficiency through a math placement exam. Applicants who do not meet the math proficiency requirement will be provisionally admitted as Pre-College of Science (PCOS). PCOS students may visit the College of Science Advising Center for assistance.

The College of Science encourages students to explore teaching at the secondary level as a career option. Students seeking secondary teacher certification should contact the Teach North Texas Program in the College of Science.

### Courses Recommended for Transfer

The UNT Core requirements are shown with Texas Common Course Numbering System values only when UNT offers equivalent courses. There may be other courses in transfer that apply toward the specific degree requirement, but those listed are known to apply.

#### UNT Core: Communication

ENGL 1301 and ENGL 1302 or 2311

A grade of 'C' or better is required on courses applied toward this requirement.

*ENGL 2311 is recommended instead of ENGL 1302.*

#### UNT Core: Mathematics

This requirement will be met by fulfilling B.A. Mathematics major requirements (see next column).

#### UNT Core: Life & Physical Sciences

This requirement will be met by fulfilling the B.A. Mathematics laboratory science requirement (see next page).

#### UNT Core: American History

Two courses chosen from: HIST 1301, 1302, 2301

#### UNT Core: Government/Political Science

GOVT 2305 and 2306

#### UNT Core: Creative Arts

One course chosen from: ARTS 1301 or 1304; DRAM 1310; MUSI 1306; SPCH 2341

#### UNT Core: Language, Philosophy and Culture

One course chosen from: ARTS 1303; ENGL 2332 or 2333; HIST 2321 or 2322; PHIL 1301, 1304, 2303, 2306, or 2316

#### UNT Core: Social & Behavioral Sciences

One course chosen from: ANTH 2346 or 2351; COMM 1307; CRIJ 1301; ECON 2301 or 2302; GEOG 1303; PSYC 2301; SOCI 1301; SOCW 2361; SPCH 1318; TECA 1354

#### UNT Core: Component Area Option

This requirement may be met by fulfilling B.A. Mathematics major requirements (see next column).

#### College of Science Core: Breadth Requirement

Students pursuing the Bachelor of Arts must complete four classes (minimum 3 hours each) from classes outside of the College of Science. These classes may not be simultaneously applied to University Core Curriculum requirements.

Students are encouraged to use these 12 hours to add value to their degree by applying them to a certificate, minor or second major that will support their goals, in consultation with the COS Office of Student Advising.

This requirement will be deemed complete for Bachelor of Arts students who attain any foreign language 2311 and 2312. Courses must be taken in the same language.

NOTE: Prerequisites for foreign language 2311 and 2312 courses are 1311 and 1312 or 1411 and 1412 or 1511 and 1512. Placement exams may be available; see your community college academic advisor for details. Students who graduated from a high school outside the United States at which English was not the primary language should ask the COS Office of Student Advising about eligibility for waiving this requirement.

#### B.A. Mathematics: Major Requirements

- MATH 2313 or 2413 or 2513 (also fulfills the Mathematics core and major requirements)
- MATH 2314 or 2414
- MATH 2318 or 2418
- MATH 2315 or 2415
- MATH 2305 or MATH 2405

MATH 2314 and 2305 also fulfill the Component Area Option core requirement.

#### Advanced Mathematics Courses

No TCCNS options available

*Courses listed above are TCCNS options and do not include all courses required for the UNT B.A. Mathematics major.*

Students must achieve a grade point average of at least 2.0 in all mathematics courses numbered 3350 and above that are applied toward the major.

#### B.A. Mathematics: Foreign Language

Students may complete either of two options to satisfy the Mathematics Foreign Language requirement:

**Option I:** Proficiency in a foreign language equivalent to 1312 or 1412 or 1512. Students intending to pursue a graduate degree in mathematics are encouraged to study French, German or Russian.

**Option II:** Complete 6 hours of technical writing courses from the following: ENGL 2311 (also partially fulfills the Communication core requirement) and one advanced level TECM course option at UNT from approved list.

#### B.A. Mathematics: Laboratory Sciences

The College of Science major in mathematics requires students to complete at least 11 hours in laboratory sciences. These may also fulfill the Life & Physical Sciences and Component Area Option core requirements.

##### Option I

Group I: Complete the following course:

- BIOL 1406 or 1306/1106\*\*

Mathematics majors with a minor in geography or geology may also choose GEOL 1401 and GEOL 1403.

Group II: Complete one of the following laboratory courses:

- PHYS 2425 or 2325/2125
- CHEM 1411 or 1311/1111

Group III: Complete one of the following laboratory courses.

- |                            |                          |
|----------------------------|--------------------------|
| • ANTH 2401 or 2301/2101   | • BIOL 2401 or 2301/2101 |
| • BIOL 1407 or 1307/1107** | • BIOL 2402 or 2302/2102 |
| • BIOL 1411 or 1311/1111   | • BIOL 2406 or 2306/2106 |
| • BIOL 1413 or 1313/1113   | • GEOL 1401 or 1301/1101 |
|                            | • GEOL 1403 or 1303/1103 |

##### Option II

Group I: Complete two of the following laboratory courses.

- CHEM 1411 OR 1311/1111
- CHEM 1412 OR 1312/1112
- PHYS 2425 OR 2325/2125
- PHYS 2426 OR 2326/2146

Group II: Complete one of the following laboratory courses.

- |                            |                          |
|----------------------------|--------------------------|
| • ANTH 2401 or 2301/2101   | • BIOL 2401 or 2301/2101 |
| • BIOL 1406 or 1306/1106** | • BIOL 2402 or 2302/2102 |
| • BIOL 1407 or 1307/1107** | • BIOL 2406 or 2306/2106 |
| • BIOL 1411 or 1311/1111   | • GEOL 1401 or 1301/1101 |
| • BIOL 1413 or 1313/1113   | • GEOL 1403 or 1303/1103 |

\*\* Approved substitution

#### B.A. Mathematics: Computer Programming

Students taking mathematics courses at the 2000-level or above are expected to be competent in computer programming, using languages such as BASIC, C, C++, Fortran, PASCAL or Java. Students are encouraged to complete the programming requirement during their freshman or sophomore year. Students who have acquired a solid programming competency in a non-academic setting, such as through work experience, may demonstrate their programming competency by passing a departmental exam in place of the COSC 1315 or 1415; or COSC 1336 or 1436 course requirement.

#### Minor (Required)

One of the following is required:

- A minor of at least 18 hours (6 advanced).
- Completion of a second major in addition to mathematics.
- Completion of the certificate program in actuarial science.

#### Teacher Certification Option

The College of Science encourages students to explore teaching at the secondary level as a career option. A higher GPA may be required for the certification option. For more information contact your advisor.

#### Special Notes

##### Hours Required and General/College Requirements:

A minimum of 120 semester hours, of which 36 must be advanced, and fulfillment of degree requirements for the Bachelor of Arts degree as specified in the [General University Requirements](#) section of the UNT catalog and the College of Science requirements

**UNT Core Curriculum/Transfer of Core Curriculum:** Complies with the [mandates of the 1997 Texas Legislature](#) regarding requirements for state-assisted institutions. Individual academic programs may require courses contained in parts of the University Core Curriculum. Students who wish to take courses that will fulfill both core and major/program requirements simultaneously should check with academic advisors for assistance in selecting core courses.

**Choice of Catalog:** Any student transferring directly from a Texas public community college to UNT shall have the same choice of catalog designating degree requirements as the student would have had if the dates of attendance at the university had been the same as the dates of attendance at the community college.

The College of Science required curriculum and policies are located in the [undergraduate catalog](#) under the corresponding catalog year.

For additional program and contact information, visit the College of Science Student Advising website at [www.cos.unt.edu/advising](http://www.cos.unt.edu/advising).