

# College of Science

## B.S. Mathematics

### Secondary-Level Teachers Certification (Grades 7-12)

#### 2021-2022 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	MATH 2100	None
	MATH 1710	MATH 2313 or 2413 or 2513	ENGL 1320 or TECM 2700 (TECM 2700 is recommended)	ENGL 1302 or 2311
	PSCI 2305	GOVT 2305	PSCI 2306	GOVT 2306
	MATH 2000	MATH 2305 or 2405	MATH 1720	MATH 2314 or 2414
	TNTX 1100*	None	TNTX 1200*	None
			B.S. Math: Laboratory Science	<a href="#">See list of approved courses</a>
* Students must be admitted to the Teach North Texas Program prior to enrolling in certain Education courses.				

YEAR	FALL SEMESTER		SPRING SEMESTER	
	UNT Requirement	TCCNS Option	UNT Requirement	TCCNS Option
SOPHOMORE	EDCI 3500*	None	EDCI 4060	None
	Foreign Language Option I or II	Consult UNT advisor	MATH 3000	
	MATH 2700	MATH 2318 or 2418	MATH 3680	
	MATH 2730	MATH 2315 or 2415	CSCE 1010 or 1020 or 1030	COSC 1315 or 1415 or 1336 or 1436
	B.S. Math: Laboratory Science	<a href="#">See list of approved courses</a>	Foreign Language Option I or II	Consult UNT advisor

YEAR	FALL SEMESTER		SPRING SEMESTER	
	UNT Requirement	TCCNS Option	UNT Requirement	TCCNS Option
JUNIOR	EDCI 4000*	None	MATH 3850	None
	MATH 3510 or 3610		MATH 4060	
	MATH 4050		Advanced MATH Analysis or Algebra Elective	
	UNT Core: American History	<a href="#">See list of approved courses</a>	TNTX 3100	
	B.S. Math: Laboratory Science	<a href="#">See list of approved courses</a>	UNT Core: American History	
		UNT Core: Creative Arts	<a href="#">See list of approved courses</a>	

YEAR	FALL SEMESTER		SPRING SEMESTER	
	UNT Requirement	TCCNS Option	UNT Requirement	TCCNS Option
SENIOR	EDCI 4500*	None	EDCI 4608* (Student Teaching I)	None
	MATH Elective (3350 or higher)			
	MATH Elective (3350 or higher)			
	UNT Core: Social & Behavioral Science	<a href="#">See list of approved courses</a>	EDCI 4618* (Student Teaching II)	
	Elective	Consult UNT Advisor		
	UNT Core: Language, Philosophy, & Culture	<a href="#">See list of approved courses</a>	EDCI 4628* (Student Teaching Seminar)	

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Students may not declare a major within the College of Science until they have completed MATH 1100 (MATH 1314 or 1414), or 1180 (MATH 1324) with a 'C' or better, 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.

### Courses Recommended for Transfer

The UNT Core requirements are shown with Texas Common Course Numbering System options 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.S. Mathematics major requirements (see next column).

#### UNT Core: Life & Physical Sciences

This requirement will be met by fulfilling B.S. Mathematics laboratory science requirement (see next column and 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 or MUSI 1307; SPCH 2341

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

One course chosen from: ARTS 1303; ENGL 2321, 2326, 2331, 2332, 2333, 2341, or 2351; 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 or 2330; SOCI 1301; SOCW 2361; SPCH 1318; TECA 1354

#### UNT Core: Component Area Option

This requirement may be met by fulfilling the B.S. Mathematics major requirement (see next page).

#### B.S. Mathematics: Major Requirements

- MATH 2305 or 2405
- MATH 2313 or 2413 or 2513
- MATH 2314 or 2414
- MATH 2315 or 2415
- MATH 2318 or 2418

MATH 2313 also fulfills the Mathematics core requirement; MATH 2314 also partially fulfills the Component Area Option core requirement.

#### Advanced Mathematics Courses

No TCCNS options available

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.

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

#### B.S. Mathematics: Laboratory Sciences

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

#### Option I. Biology Emphasis

\*\* Approved substitution

- BIOL 1406 or 1106/1306\*\*
- BIOL 1407 or 1107/1307\*\*
- PHYS 2425 or 2325/2125 or CHEM 1411 or 1311/1111

#### Option II. Chemistry Emphasis

- CHEM 1411 or 1311/1111
- CHEM 1412 or 1312/1112
- Any CHEM numbered at least 2000 or one of the following:

- ANTH 2401 or 2301/2101
- ASTR 1403 or 1303/1103
- ASTR 1404 or 1304/1104
- BIOL 1406 or 1306/1106\*\*
- BIOL 1407 or 1307/1107\*\*
- BIOL 1408 or 1308/1108
- BIOL 2401 or 2301/2101
- BIOL 2402 or 2302/2102
- BIOL 2406 or 2306/2106
- GEOL 1401 or 1301/1101
- GEOL 1403 or 1303/1103
- PHYS 1401 or 1301/1101
- PHYS 1402 or 1302/1102
- PHYS 1403 or 1303/1103
- PHYS 1404 or 1304/1104
- PHYS 1410 or 1310/1110
- PHYS 1415 or 1315/1115
- PHYS 2425 or 2325/2125
- PHYS 2426 or 2326/2126

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#### B.S. Mathematics: Laboratory Sciences (cont.)

##### Option III. Physics Emphasis

- PHYS 2425 or 2325/2125
- PHYS 2426 or 2326/2126
- Any PHYS numbered at least 2000 or one of the following:
  - ANTH 2401 or 2301/2101
  - ASTR 1403 or 1303/1103
  - ASTR 1404 or 1304/1104
  - BIOL 1406 or 1306/1106\*\*
  - BIOL 1407 or 1307/1107\*\*
  - BIOL 1408 or 1308/1108
  - BIOL 2401 or 2301/2101
  - BIOL 2402 or 2302/2102
  - BIOL 2406 or 2306/2106
  - CHEM 1411 or 1311/1111
  - CHEM 1412 or 1312/1112
  - GEOL 1401 or 1301/1101
  - GEOL 1403 or 1303/1103
  - PHYS 1401 or 1301/1101
  - PHYS 1402 or 1302/1102
  - PHYS 1403 or 1303/1103
  - PHYS 1404 or 1304/1104
  - PHYS 1410 or 1310/1110
  - PHYS 1415 or 1315/1115

\*\* Approved substitution

**Option IV.** Students double majoring in mathematics and another discipline (typically biology, chemistry, physics or engineering) that requires at least 12 hours of laboratory science intended for science and engineering majors may use the same laboratory science courses that satisfy the requirements for the other major to satisfy the laboratory science requirement for the mathematics major.

**Option V.** Students with a minor in geography or geology may use GEOL 1401 (1301/1101), GEOL 1403 (1303/1103), and any course listed in Option I, II, or III to satisfy the laboratory science requirement for the mathematics major.

#### B.S. 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 Communication core requirement) and one advanced level TECM course option at UNT from approved list .

#### B.S. Mathematics: Computer Programming

- COSC 1315 or 1415 or 1336 or 1436

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 1336 or 1436 course requirement.

#### Teacher Certification Information

To be certified to teach in the State of Texas, the student must successfully pass the following exams.

Exam #1 TExES: Pedagogy & Professional Responsibilities (EC-12)

Exam #2 TExES: Mathematics (7-12)

Additional requirements for Teacher Certification in Mathematics include a 2.5 overall GPA (including all transferred courses), a 2.5 UNT GPA and a 2.5 major GPA.

#### Teach North Texas Program: Minor (Required)

Students in this degree plan must go through the Teach North Texas Program. This program requires 22 hours for a minor in Mathematics and Science Secondary Teaching and meet all GPA requirements to apply for state certification. Students should contact the Teach North Texas program for more information on enrolling in the certification courses. No TCCNS options available for Teach North Texas requirements.

A 2.75 GPA is required on all courses counting toward the Mathematics and Science Secondary Teaching Minor; see current UNT Undergraduate Catalog for all minor requirements.

#### 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 Science 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:** UNT complies with the [mandates of the 1997 Texas Legislature](#) regarding requirements for state-assisted institutions. Students who successfully complete the common core curriculum (in whole or in part) at a Texas state-assisted institution of higher education are eligible to transfer as "core complete" for those categories in the UNT University Core Curriculum.

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.

**MS Grad Track Available:** The Grad Track option is an accelerated program for undergraduate students seeking a BS/MS. Qualified students may take a maximum of 12 graduate credit hours while completing the BS. These credits will be counted towards both the BS and the MS. The student will apply for the Grad Track option during their junior year. See catalog for admission and program requirements.

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