### B.A. Mathematics
#### Secondary-Level Teacher Certification (Grades 7-12)
**Mathematics and Physics**

#### 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](http://registrar.unt.edu/transfer-guides) 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.

<table>
<thead>
<tr>
<th>Year</th>
<th><strong>FALL SEMESTER</strong></th>
<th><strong>SPRING SEMESTER</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>UNT Requirement</strong></td>
<td><strong>TCCNS Option</strong></td>
</tr>
<tr>
<td>FRESHMAN</td>
<td>ENGL 1310</td>
<td>ENGL 1301</td>
</tr>
<tr>
<td></td>
<td>Elective</td>
<td>Consult UNT advisor</td>
</tr>
<tr>
<td></td>
<td>MATH 1710</td>
<td>MATH 2313 or 2413 or 2513</td>
</tr>
<tr>
<td></td>
<td>MATH 2000</td>
<td>MATH 2305 or 2405</td>
</tr>
<tr>
<td></td>
<td>TNTX 1100* (1 hr)</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>Elective</td>
<td>Consult UNT Advisor</td>
</tr>
<tr>
<td></td>
<td>* Students must be admitted to the Teach North Texas Program prior to enrolling in certain Education courses.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th><strong>FALL SEMESTER</strong></th>
<th><strong>SPRING SEMESTER</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>SOPHOMORE</td>
<td>PSCI 2305</td>
<td>GOVT 2305</td>
</tr>
<tr>
<td></td>
<td>MATH 2700</td>
<td>MATH 2318 or 2418</td>
</tr>
<tr>
<td></td>
<td>MATH 2730</td>
<td>MATH 2315 or 2415</td>
</tr>
<tr>
<td></td>
<td>PHYS 2220/2240</td>
<td>PHYS 2426 or 2326/2126</td>
</tr>
<tr>
<td></td>
<td>EDCI 3500*</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th><strong>FALL SEMESTER</strong></th>
<th><strong>SPRING SEMESTER</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>JUNIOR</td>
<td>MATH 3510 or 3610</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>PHIL 2600</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>MATH 4050</td>
<td>MATH 3850</td>
</tr>
<tr>
<td></td>
<td>EDCI 4000*</td>
<td>MATH 4060</td>
</tr>
<tr>
<td></td>
<td>UNT Core: American History</td>
<td>See list of approved courses</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th><strong>FALL SEMESTER</strong></th>
<th><strong>SPRING SEMESTER</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>SENIOR</td>
<td>Advanced Analysis or Algebra Elective</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>EDCI 4500*</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>Elective</td>
<td>Consult UNT advisor</td>
</tr>
<tr>
<td></td>
<td>Foreign Language Option I or II</td>
<td>Consult UNT advisor</td>
</tr>
<tr>
<td></td>
<td>UNT Core: Social &amp; Behavioral Science</td>
<td>See list of approved courses</td>
</tr>
</tbody>
</table>
# College of Science

## B.A. Mathematics

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

### Mathematics and Physics

2019-2020 Texas Common Course Numbering System Transfer Guide

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.

## 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.

<table>
<thead>
<tr>
<th>UNT Core: Communication</th>
<th>College of Science Core: Breadth Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1301 and ENGL 1302 or 2311</td>
<td>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.</td>
</tr>
</tbody>
</table>

*ENGL 2311 is recommended instead of ENGL 1302.*

<table>
<thead>
<tr>
<th>UNT Core: Mathematics</th>
</tr>
</thead>
<tbody>
<tr>
<td>This requirement will be met by fulfilling the B.A. Mathematics major requirements (see next column).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>UNT Core: Life &amp; Physical Sciences</th>
</tr>
</thead>
<tbody>
<tr>
<td>This requirement will be met by fulfilling the B.A. Mathematics laboratory science requirement (see next column).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>UNT Core: American History</th>
</tr>
</thead>
<tbody>
<tr>
<td>Two courses chosen from: HIST 1301, 1302, 2301</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>UNT Core: Government/Political Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>GOVT 2305 and 2306</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>UNT Core: Creative Arts</th>
</tr>
</thead>
<tbody>
<tr>
<td>One course chosen from: ARTS 1301 or 1304; DRAM 1310; MUSI 1306; SPCH 2341</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>UNT Core: Language, Philosophy and Culture</th>
</tr>
</thead>
<tbody>
<tr>
<td>This requirement will be met by fulfilling the Teach North Texas Program requirement (see next page).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>UNT Core: Social &amp; Behavioral Sciences</th>
</tr>
</thead>
<tbody>
<tr>
<td>One course chosen from: ANTH 2346 or 2351; COMM 1307; CRIP 1303; ECON 2301 or 2302; GEOG 1303; PSYC 2301; SOCI 1301; SOCW 2361; SPCH 1318; TECA 1354</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>UNT Core: Component Area Option</th>
</tr>
</thead>
<tbody>
<tr>
<td>This requirement will be met by fulfilling the B.A. Mathematics major requirements (see next column).</td>
</tr>
</tbody>
</table>

## B.A. Mathematics: Major Requirements

### Math

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

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

### Physics

- PHYS 2425 or 2125/2325
- PHYS 2426 or 2326/2126

PHYS 2425 and 2426 also fulfill the Life & Physical Science 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.A. Mathematics 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 Communication core requirement) and one advanced level TECM course option at UNT from approved list.
B.A. Mathematics: Computer Programming

Choose one course from below:

- COSC 1315 or 1415
- COSC 1336 or 1436

Computer Programming: COSC 1315 or COSC 1336 is required. 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.

Teach North Texas Minor Requirements:

Students must complete the required 22 hours for the 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 Teach North Texas Minor; see current UNT Undergraduate Catalog for all minor requirements.

PHIL 2600, offered only at UNT, is required for the Teach North Texas Program and will also fulfill the Language, Philosophy, and Culture core 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 and Physics (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.

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: 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.

For additional program and contact information, visit the College of Science Student Advising website at www.cos.unt.edu/advising.