**College of Arts & Sciences**

**B.A. Mathematics**

2010-2011 Texas Common Course Numbering System Transfer Guide

- Students who earn degrees in mathematics readily obtain jobs with high-technology companies and in business, industry, government and teaching. Salaries and working conditions compare with those of engineers and scientists.
- Students who plan to major in mathematics, physics, chemistry, biology or computer science should have had four years of mathematics in high school, including pre-calculus. Students who are required to take mathematics as part of their degree program in college should have had at least two years of algebra and one year of geometry in high school.
- The Bachelor of Arts degree in Mathematics enforces prerequisites for MATH 1314 or 1414, 1325 or 1425, 1350, 1316, 2312 or 2412, and 2313 or 2413 or 2513. These prerequisite courses require completion with grade of “C” or better, or UNT mathematics department approval.
- The College of Arts and Sciences encourages students to explore teaching at the secondary level as a career option. Students seeking secondary teacher certification should contact the Teach North Texas in the College of Arts and Sciences.
- The College of Arts and Sciences expects you to have completed the State recommended high school program and be ready to enroll for Language 2040 (TCCNS: Language 2311) or a mathematics course above college algebra. If you are not prepared for this level, the necessary prerequisites will either replace electives or increase the hours required for the degree.

**Courses Recommended for Transfer**

**UNT Core: English Composition & Rhetoric**

- 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: Natural Science**

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

**UNT Core: U.S. History**

- Two courses chosen from: HIST 1301, 1302, 2301, 2327, 2328, 2381

**UNT Core: Political Science**

- Two courses chosen from one of the following combinations:
  - GOVT 2301 and 2302
  - GOVT 2305 and 2306

**UNT Core: Visual & Performing Arts**

- One course chosen from: ARCH 1301, 1302; ARTS 1301 or 1304; COMM 2366; DRAM 1310, 2361, 2362, 2363, 2366, 2367; DANC 2303, 2304; HUMA 1315; MUSI 1306, 1307, 1308, 1309

**UNT Core: Humanities**

- One course chosen from: ENGL 2321, 2322, 2323, 2326, 2327, 2328, 2331, 2332, 2333, 2341, 2342, 2343, 2351; HUMA 1301, 1302; PHIL 1301, 2303, 2306, 2316, or 2317

**UNT Core: Social & Behavioral Sciences**

- One course chosen from: ANTH 2346, 2351; CRIJ 1301; ECON 1301, 2301, 2302; GEOG 1302; HUMA 2323; PSYC 2301; SOCI 1301, 1306; TECA 1354

**UNT Core: Understanding the Human Community**

- This requirement will be met by fulfilling College of Arts and Sciences foreign language requirement (see below)

**College of Arts & Sciences Core: Foreign Language**

- Any foreign language 2311 and 2312.
  - This also satisfies the university core Understanding the Human Community Requirement.
  - Latin courses (2311 and 2312) can be used to satisfy this requirement, but will not satisfy the university core Understanding the Human Community requirement. 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.

**B.A. Mathematics: Major Requirements**

**Lower-level TCCNS options:**

- MATH 2313 or 2413 or 2513 (fulfills both university mathematics core and major requirements)
- MATH 2314 or 2414
- MATH 2318 or 2418
- MATH 2315 or 2415

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

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Laboratory Sciences

Three laboratory science courses are required as follows (these also fulfill university core laboratory science requirements):

Option I

Group I: Complete the following course:
BIOL 1406 or 1106/1306

Group II: Complete one of the following laboratory courses:
PHYS 2425 or 2325/2125
CHEM 1411 or 1111/1311

Group III: Complete one of the following Laboratory courses:
BIOL 1407 or 1307/1107
CHEM 1411 or 1111/1311
CHEM 1412 or 1112/1312
PHYS 2425 or 2325/2125
PHYS 2426 or 2326/2126

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

Option II

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.

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.

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. (advanced)

Teacher Certification Option

The College of Arts and Sciences 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 the College of Arts and Sciences Office of Student Advising at 940-565-2051.

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College of Arts & Sciences

B.A. Mathematics

2010-2011 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.

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<tr>
<th>Year</th>
<th>Fall Semester</th>
<th>Spring Semester</th>
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<tbody>
<tr>
<td></td>
<td>UNT Requirement</td>
<td>TCCNS Option</td>
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<td>FRESHMAN</td>
<td>ENGL 1310</td>
<td>ENGL 1301</td>
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<td>Foreign Language 2040</td>
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<td>MATH 1710</td>
<td>MATH 2313 or 2413 or 2513</td>
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<td>UNT Core: Political Science</td>
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<td>UNT Core: Humanities</td>
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<td>UNT Core: U.S. History</td>
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