### College of Engineering

**B.S. Materials Science & Engineering**

2016-2017 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.

UNT Courses noted (#) do not have TCCNS equivalents, but have approved transferable substitutions.

<table>
<thead>
<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>
</tr>
<tr>
<td>FRESHMAN</td>
<td>MATH 1710</td>
<td>MATH 2313 or 2413 or 2513</td>
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<tr>
<td></td>
<td>CHEM 1410/1430</td>
<td>CHEM 1411 or 1311/1111</td>
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<tr>
<td></td>
<td>ENGL 1310 or 1313</td>
<td>ENGL 1301</td>
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<tr>
<td></td>
<td>MTSE 1100</td>
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<tr>
<td></td>
<td>UNT Core: American History</td>
<td>See list of approved courses</td>
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<tr>
<td>SOPHOMORE</td>
<td>MATH 2700</td>
<td>MATH 2318 or 2418</td>
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<td>PHYS 2220/2240</td>
<td>PHYS 2426 or 2326/2126</td>
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<td></td>
<td>ENGR 2301</td>
<td>ENGR 2303 or 2403 or ENGR 2301#</td>
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<td></td>
<td>ENGR 3450</td>
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<tr>
<td></td>
<td>UNT Core: Government/Political Science</td>
<td>See list of approved courses</td>
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<td>UNT Requirement</td>
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<tr>
<td>JUNIOR</td>
<td>MTSE 3010</td>
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<tr>
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<td>UNT Requirement</td>
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<td>MTSE 4090</td>
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<tr>
<td></td>
<td>UNT Core: Language, Philosophy and Culture</td>
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http://registrar.unt.edu/transfer-guides

Last Revised: September 20, 2016
College of Engineering
B.S. Materials Science & Engineering
2016-2017 Texas Common Course Numbering System Transfer Guide

- Admission to the university does not guarantee admission to the College of Engineering. To be admitted to the College of Engineering, students must meet the requirements listed under “Admission Requirements” on page two.
- To complete the B.S. Materials Science & Engineering degree within four years, students should plan to take Calculus I (MATH 2313 or 2413 or 2513) during the first semester of their freshman year, and ENGR 3450 (available at UNT only) during the second semester of their sophomore year. Please refer to the four-year plan on page one for a recommended schedule. Students interested in completing an associate’s degree at a community college may consult with a College of Engineering advisor about concurrent enrollment options.

Courses Recommended for Transfer

The UNT Core requirements, with the exception of American History and Government/Political Science, and the College & Major 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.

Unt Core: Mathematics
This requirement will be met by fulfilling the Materials Science & Engineering program requirements (see “Other Course Requirements”).

Unt Core: Life & Physical Sciences
This requirement will be met by fulfilling the Materials Science & Engineering program requirements (see “Other Course Requirements”).

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 1307; SPCH 2341

Unt Core: Language, Philosophy and Culture
One course chosen from: ENGL 2322 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; CRJ 1301; ECON 2301 or 2302; GEOG 1303; PSYC 2301; SOCI 1301; SOWC 2361; SPCH 1318; TECA 1354

Unt Core: Component Area Option Category I
This requirement will be met by fulfilling the B.S. in Materials Science & Engineering program requirements.

Unt Core: Component Area Option Category II
This requirement will be met by fulfilling the B.S. in Materials Science & Engineering program requirements (see “Other Course Requirements” below).

Materials Science & Engineering: Major Requirements
No TCCNS Options Available.

Materials Science & Engineering: Other Course Requirements
TCCNS options:
Required course in Technical Writing:
- ENGL 2311

Required courses in engineering:
- ENGR 2332 or 2432 (substitutes for UNT’s ENGR 2332)
- ENGR 2303 or 2403 or ENGR 2301 (substitutes for UNT’s ENGR 2301)

Required courses in mathematics:
- MATH 2313 or 2413 or 2513 (fulfills Mathematics core and program requirements.
- MATH 2314 or 2414
- MATH 2318 or 2418

Required courses in laboratory science:
- CHEM 1411 or 1311/1111
- CHEM 1312 or 1412
- PHYS 2425 or 2325/2125
- PHYS 2426 or 2326/2126

CHEM and PHYS courses listed above fulfill both Life & Physical Sciences core and major requirements.

Courses listed above are TCCNS options and do not include all courses required for the UNT Materials Science & Engineering major.

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Last Revised: September 20, 2016
Materials Science & Engineering: Other Requirements

Materials Science & Engineering foundation courses include:

- MTSE 1100 at UNT
- MATH 2313 or 2413 or 2513
- MATH 2314 or 2414
- CHEM 1411 or 1311/1111
- CHEM 1312 or 1412
- PHYS 2426 or 2326/2126
- ENGL 2311
- ENGR 3450 at UNT

Satisfactory completion of the MTSE foundation courses with a minimum GPA of 2.5 is prerequisite to taking advanced courses in the major. Each semester the student is required mandatory advisement until the foundation courses have been successfully completed.

College of Engineering: Admission Requirements

Admissions to the College of Engineering is contingent on clear admissions to the university.

Freshman applicants will be admitted to the College of Engineering in an Engineering program if:

1) They were in the top 25% of their graduating class and have a math SAT score of 570 or better and a total SAT score of 1070 or better; or a math ACT score of 23 or better and a cumulative ACT score of 23 or better.

2) They were in the top 50% of their graduating class or have no graduating class ranking (home schooled, GED, international students, etc) and have a math SAT score of 600 or better and a total SAT score of 1100 or better; or a math ACT score of 24 or better and a cumulative ACT score of 24 or better.

3) They have a math SAT score of 630 or better and a total SAT score of 1180 or better; or a math ACT score of 26 or better and a cumulative ACT score of 26 or better.

Engineering Technology programs

- Freshman applicants to Engineering Technology programs must have a math SAT score of 540 or better, or a math ACT score of 22 or better.

Math courses

- Enrollment in mathematics classes for entering freshmen will be determined in accordance with criteria established by the Department of Mathematics.

Transfer, International and Post-Baccalaureate

- Applicants must be eligible to enroll in MATH 1710 (Calculus I; TCCNS: MATH 2313 or 2413 or 2513) or higher. MATH 1650 (Pre-Calculus; TCCNS: MATH 2312 or 2412) completed with a grade of C or better is a prerequisite to enroll in MATH 1710/Calculus I.

For applicants who do not meet the above requirements, admissions will be granted on entry into MATH 1710 (Calculus I; TCCNS: MATH 2313 or 2413 or 2513) and good academic standing with a cumulative UNT grade point average of 2.0 or higher.

After admission criteria are met by the applicant, the student will be accepted as a major in his or her program of study. The student must adhere to the requirements below in order to be accepted as a full major and to be allowed to enroll in upper-division courses in the College of Engineering.

Special Notes

Hours Required and General/College Requirements:

A minimum of 120 semester hours, of which 45 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 Engineering requirements.

- A grade of 'C' or better is required for all major courses and other courses requirements.
- A grade point average of at least 2.0 is required for all materials science and engineering courses. Grades of “D” are not accepted.

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 Engineering required curriculum and policies are located in the Undergraduate Catalog.