

# College of Engineering

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

### 2012-2013 Texas Common Course Numbering System Transfer Guide



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- 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 MATH 3310 (available at UNT only) during the second semester of their sophomore year. Please refer to the four-year plan on page three 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

#### 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 required for all College of Engineering majors.*

#### UNT Core: Mathematics

This requirement will be met by fulfilling the Materials Science & Engineering program requirements (see "Other Course Requirements").

#### UNT Core: Natural Science

This requirement will be met by fulfilling the Materials Science & Engineering program requirements (see "Other Course Requirements").

#### UNT Core: U.S. History

Two courses chosen from: HIST 1301, 1302, 2301

#### UNT Core: Political Science

Two courses chosen from one of the following combinations:

- GOVT 2301 and 2302
- GOVT 2305 and 2306
- GOVT 2301 and 2305
- GOVT 2301 and 2306
- GOVT 2302 and 2306

#### UNT Core: Visual & Performing Arts

One course chosen from: ARTS 1301, 1303, or 1304; DRAM 1310; MUSI 1306 or 1307; SPCH 2341

#### UNT Core: Humanities

One course chosen from: ENGL 2322, 2323, 2327, 2328, 2332, or 2333; PHIL 1304 or 2316

#### UNT Core: Social & Behavioral Sciences

One course chosen from: ANTH 2346 or 2351; COMM 1307; CRIJ 1301; ECON 2301 or 2302; HUMA 2323; PSYC 2301; SOCI 1301; SPCH 1318; TECA 1354

#### UNT Core: Discovery

One course chosen from: ARTS 1301; BIOL/HECO 1322; GEOG 1303; HIST 2321 or 2322; PHIL 1301, 2303, or 2306; SPCH 1311 or 1315; TECA 1303

#### UNT Core: Capstone

The Capstone Core requirement is unique to UNT and will be fulfilled by an advanced course at UNT.

#### 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 Natural Science 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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#### College of Engineering: Admission Requirements

In addition to the university admission requirements, applicants must meet the following minimum requirements for admission to the College of Engineering:

- Freshman applicants must have a math SAT score of 540 or better, or a math ACT score of 22 or better.
- Transfer 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.

If an applicant does not meet any of the above requirements, admission will be granted into an engineering preparatory program (Pre-Engineering) until the applicant completes MATH 1650 (Pre-Calculus; TCCNS: MATH 2312 or 2412) with a grade of C or better.

College of Engineering foundation courses should be met prior to acceptance as a full major and/or enrollment in upper-division College of Engineering courses. Students must achieve a minimum GPA of 2.5 or higher in the following courses and laboratories with only grades of "A, B, and C" accepted:

**Mathematics:** This course will also fulfill Material Science and Engineering program requirements.  
TCCNS Options: MATH 2313 or 2413 or 2513.

**Science:** Two courses including laboratories chosen from the list of approved courses; these courses will also fulfill Materials Science and Engineering program requirements.  
TCCNS Options: CHEM 1411 or 1311/1111; PHYS 2425 or 2325/2125.

**Technical Written Communication:** This course will also partially fulfill the UNT Core English Composition requirement.  
TCCNS Option: ENGL 2311.

#### 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 2.5 GPA is required for Materials Science & Engineering courses in the major. 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 2012-2013](#).

For additional program and contact information see the College of Engineering Student Advising website:  
<http://engineering.unt.edu/advising>

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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.

YEAR	FALL SEMESTER		SPRING SEMESTER	
	UNT Requirement	TCCNS Option	UNT Requirement	TCCNS Option
FRESHMAN	MATH 1710	MATH 2313 or 2413 or 2513	MATH 1720	MATH 2314 or 2414
	CHEM 1410/1430	CHEM 1411 or 1311/1111	CHEM 1420	CHEM 1312 or 1412
	ENGL 1310 or 1313	ENGL 1301	PHYS 1710/1730	PHYS 2425 or 2325/2125
	UNT Core: Discovery	See list of approved courses	TECM 2700 UNT Core: U.S. History	ENGL 2311 See list of approved courses

YEAR	FALL SEMESTER		SPRING SEMESTER	
	UNT Requirement	TCCNS Option	UNT Requirement	TCCNS Option
SOPHOMORE	MATH 2700	MATH 2318 or 2418	MATH 3310	None
	PHYS 2220/2240	PHYS 2426 or 2326/2126	PHYS 3010	None
	ENGR 2301	ENGR 2303 or 2403 or ENGR 2301#	ENGR 2332# ENGR 3450	ENGR 2332 or 2432 None
	UNT Core: Social & Behavioral Science	See list of approved courses	UNT Core: Political Science	See list of approved courses

YEAR	FALL SEMESTER		SPRING SEMESTER	
	UNT Requirement	TCCNS Option	UNT Requirement	TCCNS Option
JUNIOR	MTSE 3010	None	MTSE 3050	None
	MTSE 3020		MTSE 3060	
	MTSE 3030		MTSE 3070	
	MTSE 3040		MTSE 3080	
	MTSE 3090		MTSE 3100	
	UNT Core: Political Science	See list of approved courses	UNT Core: Visual & Performing Arts	See list of approved courses

YEAR	FALL SEMESTER		SPRING SEMESTER	
	UNT Requirement	TCCNS Option	UNT Requirement	TCCNS Option
SENIOR	MTSE 4010	None	MTSE 4060	None
	MTSE 4030		MTSE 4100 (Capstone)	
	MTSE 4050		MTSE Elective	
	MTSE 4090		MTSE Elective	
	UNT Core: Humanities	See list of approved courses	UNT Core: U.S. History	See list of approved courses