

# College of Engineering

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

### 2010-2011 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 MEEN 2130 and MATH 3310 (both available at UNT only) during the first 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 major requirements (see next column).

### UNT Core: Natural Science

This requirement will be met by fulfilling the Materials Science & Engineering major requirements (see next column).

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

Two courses chosen from:

- Foreign Language (ARAB, CHIN, FREN, GERM, ITAL, JAPN, PORT, RUSS, SPAN): 1311/1411/1511, 1312/1412/1512, 2311, 2312
- ARTS 1303
- BIOL/HECO 1322
- BIOL 1323
- COMM 1307
- DANC 1305
- DANC 1306
- GEOG 1303
- HIST 2321
- HIST 2322
- HUMA 2319
- MUSI 1310
- PHIL 1304
- SOCI 2319
- SOCI 2320
- SPCH 1311
- SPCH 1315
- SPCH 1318
- SPCH 1321
- SPCH 2341
- TECA 1303
- TECA 1318

*SPCH 1321 is recommended.*

### Materials Science & Engineering: Major Requirements/TCCNS Options

- CHEM 1411 or 1311/1111
- CHEM 1312 or 1412
- ENGL 2311
- ENGR 2332 or 2432 (substitutes for UNT's ENGR 2332)
- MATH 2313 or 2413 or 2513
- MATH 2314 or 2414
- PHYS 2425 or 2325/2125
- PHYS 2426 or 2326/2126
- SPCH 1321 (substitutes for UNT's ENGR 2060; fulfills a portion of Understanding the Human Community core and major requirements)

CHEM and PHYS courses listed above fulfill both Natural Science core and major requirements.

MATH courses listed above fulfill Mathematics 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) in the Undergraduate Studies Office 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 completed prior to enrollment in upper-division courses. Students must achieve a grade of C or better for each course and must maintain a minimum GPA of 2.5 in each of the following three course groups:

**Mathematics:** A minimum of 6 hours chosen from the list of approved courses; these courses will also fulfill Materials Science & Engineering major requirements.  
TCCNS Options: MATH 2313 or 2413 or 2513; MATH 2314 or 2414

**Science:** Three courses including laboratories chosen from the list of approved courses; these courses will also fulfill Materials Science & Engineering major requirements.  
TCCNS Options: CHEM 1411 or 1311/1111; PHYS 2425 or 2325/2125; PHYS 2426 or 2326/2126

**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" in the [Academics](#) 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:** Complies with the mandates of the 1997 Texas Legislature regarding requirements for state-assisted institutions. 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 2010-2011](#).

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

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

YEAR	FALL SEMESTER		SPRING SEMESTER	
	UNT Requirement	TCCNS Option	UNT Requirement	TCCNS Option
SOPHOMORE	MEEN 2130	None	ENGR 2332#	ENGR 2332 or 2432
	PHYS 2220/2240	PHYS 2426 or 2326/2126	UNT Core: Social & Behavioral Science	See list of approved courses
	MATH 3310	None	UNT Core: Political Science	See list of approved courses
	ENGR 2060#	SPCH 1321	ENGR 3450 PHYS 3010	None

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	
	MTSE 4050		MTSE Elective (4000 level)	
	MTSE 4090		MTSE Elective (4000 level)	
	UNT Core: Humanities	See list of approved courses	UNT Core: Understanding the Human Community	See list of approved courses