

College of Engineering

B.S. Materials Science & Engineering

2014-2015 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 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

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 2332 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; CRIJ 1301; ECON 2301 or 2302; GEOG 1303; PSYC 2301; SOCI 1301; SPCH 1318; TECA 1354

UNT Core: Discovery

One course chosen from: ARTS 1301; BIOL/HECO 1322; COMM 1307; MATH 2305 or 2405; 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.

Note: The Core Capstone courses are under review by the Texas Higher Education Coordinating Board, and are subject to change.

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.

College of Engineering

B.S. Materials Science & Engineering

2014-2015 Texas Common Course Numbering System Transfer Guide



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 Communication 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 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 2014-2015](#).

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

College of Engineering

B.S. Materials Science & Engineering

2014-2015 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.

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	ENGL 2311
	UNT Core: American History	See list of approved courses	UNT Core: American History	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 or 3410	None
	PHYS 2220/2240	PHYS 2426 or 2326/2126	PHYS 3010	None
	ENGR 2301	ENGR 2303 or 2403 or ENGR 2301#	ENGR 2332#	ENGR 2332 or 2432
	UNT Core: Social & Behavioral Science	See list of approved courses	ENGR 3450	None
	UNT Core: Government/Political Science	See list of approved courses	UNT Core: Government/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	

YEAR	FALL SEMESTER		SPRING SEMESTER	
	UNT Requirement	TCCNS Option	UNT Requirement	TCCNS Option
SENIOR	MTSE 4010	None	MTSE 4060	None
	MTSE 4030		Capstone: MTSE 4100	
	MTSE 4050		MTSE Elective	
	MTSE 4090		MTSE Elective	
	UNT Core: Language, Philosophy and Culture	See list of approved courses	UNT Core: Creative Arts	See list of approved courses