



College of Engineering

B.S. Materials Science & Engineering

2025-2026

This four-year plan provides a model for on-time completion of this UNT program. Texas Common Course Numbering System (TCCNS) show how course transfers apply to UNT degree requirements. 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.

First Year Fall		First Year Spring	
UNT Requirement	TCCNS Option	UNT Requirement	TCCNS Option
MATH 1710	MATH 2313 or 2413	MATH 1720	MATH 2314 or 2414
CHEM 1410/1430	CHEM 1311/1111 or 1411	CHEM 1420	CHEM 1312 or 1412
ENGL 1310	ENGL 1301	PHYS 1710/1730	PHYS 2325/2125 or 2425
MTSE 1100	ENGR 1201	TECM 2700	ENGL 2311
UNT Core: American History	See list of approved courses	UNT Core: American History	See list of approved courses

Second Year Fall		Second Year Spring	
UNT Requirement	TCCNS Option	UNT Requirement	TCCNS Option
MATH 2730	MATH 2315 or 2415	MTSE 3000	N/A
MATH 3410	MATH 2320 or 2420	MTSE 3001	N/A
ENGR 2301	ENGR 2301 or 2401	MTSE 3110	N/A
PHYS 2220/2240	PHYS 2326/2126 or 2426	PSCI 2306	GOVT 2306
PSCI 2305	GOVT 2305	UNT Core: Creative Arts	See list of approved courses

Third Year Fall		Third Year Spring	
UNT Requirement	TCCNS Option	UNT Requirement	TCCNS Option
MTSE 3010	N/A	MTSE 3050	N/A
MTSE 3020	N/A	MTSE 3060	N/A
MTSE 3030	N/A	MTSE 3070	N/A
MTSE 3040	N/A	MTSE 3080	N/A
MTSE 3090	N/A	MTSE 3100	N/A
		UNT Core: Social & Behavioral Sciences	See list of approved courses

Fourth Year Fall		Fourth Year Spring	
UNT Requirement	TCCNS Option	UNT Requirement	TCCNS Option
MTSE 4010	N/A	MTSE 4050	N/A
MTSE 4030	N/A	MTSE 4100	N/A
MTSE 4060	N/A	Advanced MTSE Elective ¹	N/A
MTSE 4090	N/A	Advanced MTSE Elective ¹	N/A
UNT Core: Language, Philosophy & Culture	See list of approved courses		

¹ Advanced MTSE electives chosen from MTSE 4020, MTSE 4040, MTSE 4070



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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".

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 at UNT about concurrent enrollment options.

Courses Recommended for Transfer

The UNT Core 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

One course for this requirement will be met by fulfilling the B.S. Materials Science & Engineering major requirements. In addition, complete **ENGL 1301** or **TECM 1700** (at UNT only).

A grade of 'C' or higher is required on courses applied toward this requirement.

UNT Core: Mathematics

This requirement will be met by fulfilling the B.S. Materials Science & Engineering major requirements.

UNT Core: Life and Physical Sciences

This requirement will be met by fulfilling the B.S. Materials Science & Engineering major 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: **ARTS 1303**; **ENGL 2321, 2326, 2331, 2341, or 2351**; **HIST 2321** or **2322**; **PHIL 1301, 1304, 2303, or 2306**

UNT Core: Social and Behavioral Sciences

One course chosen from: **ANTH 2346, 2351**; **BUSI 1307**; **COMM 1307**; **CRIJ 1301**; **ECON 2301** or **2302**; **GEOG 1303**; **PSYC 2301**; **SOCI 1301**; **SOCW 2361**; **SPCH 1318**; **TECA 1354**

UNT Core: Core Option Courses

This requirement will be met by fulfilling the B.S. Materials Science & Engineering major requirements.

Materials Science & Engineering: Major Requirements

TCCNS options:

- **ENGR 1201** (also fulfills a portion of the Core Option Courses core requirement)

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

Materials Science & Engineering: Additional Requirements

TCCNS options:

- **ENGL 2311** (also fulfills a portion of the Communication core requirement)
- **ENGR 2301** or **2401**
- **MATH 2313** or **2413** (also fulfills the Mathematics core requirement)
- **MATH 2314** or **2414** (also fulfills a portion of the Core Option Courses core requirement)
- **MATH 2315** or **2415**
- **MATH 2320** or **2420** (approved substitution)
- **CHEM 1111** & **1311**, or **1411**
- **CHEM 1312** or **1412**
- **PHYS 2125** & **2325**, or **2425** (also fulfills a portion of the Life & Physical Sciences core requirement)
- **PHYS 2126** & **2326**, or **2426** (also fulfills a portion of the Life & Physical Sciences core requirement)

A grade of 'C' or higher is required for all major courses and other course requirements.

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

Materials Science & Engineering: Grad Track Options

The B.S. Materials Science and Engineering major has grad track options leading to a M.S. in Materials Science and Engineering, Ph.D. in Materials Science and Engineering, M.S. in Biomedical Engineering, or M.S. in Electrical Engineering. For more information, review the UNT undergraduate catalog and consult a UNT advisor.



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Materials Science & Engineering: Department Policies

Students in the College of Engineering will conduct themselves in a professional manner in their interaction with their peers, faculty, staff and the community in general. A student may be dismissed from the college for inappropriate conduct (please refer to the Code of Student Conduct).

A minimum grade of 'C' is required in all courses required in a student's major for degree completion. Courses include, but are not limited to, engineering, computing, mathematics, laboratory sciences, supporting area, technical elective, technical option, energy elective, and specialization courses.

A minimum grade of 'C' is required in all courses required in a student's major for prerequisite completion. Courses include, but are not limited to, engineering, computing, mathematics, laboratory sciences, supporting area, technical elective, technical option, energy elective, and specialization courses.

A student making grades lower than 'C' two times in the same course in any course required by the major is subject to dismissal from the College of Engineering, pending a review by the Associate Dean for Undergraduate Studies in the College of Engineering.

A student must maintain good academic standing within the university. Please see "Academic status" and "Regulations governing students under academic suspension" in the Academics section of this catalog.

College of Engineering: Admission Requirements

Admission to the College of Engineering is contingent on clear admission to the university. The College of Engineering has 5 departments.

Applicants will be admitted to the College of Engineering in an engineering program if they meet the requirements below:

	ACT	SAT (Feb '16 or prior)	SAT (March '16 or after)
Top 25%	Math score of 23+ and a cumulative score of 23+	Math score of 570+ and a total score of 1070+	Math score of 590+ and a total score of 1140+
Top 50%	Math score of 24+ and a cumulative score of 24+	Math score of 600+ and a total score of 1100+	Math score of 620+ and a total score of 1170+
Below 50%	Math score of 26+ and a cumulative score of 26+	Math score of 630+ and a total score of 1180+	Math score of 650+ and a total score of 1250+
No Ranking	Math score of 24+ and a cumulative score of 24+	Math score of 600+ and a total score of 1100+	Math score of 620+ and a total score of 1170+

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 (second bachelor's degree) applicants must be eligible to enroll in **MATH 1710** (Calculus I) or in a higher-level math class and have a grade point average of 2.0 or greater in all prior math, science and engineering coursework.

Students not meeting the admission requirements for the major or applying to change their major into a degree in the College of Engineering will be supported through enrollment as a pre-major in their corresponding program.

Students classified as pre-majors will be reclassified into their respective major with the College of Engineering upon completing the corresponding course listed below with a 'C' or higher and a student in good standing:

Pre-major	Grade of 'C' or higher
Pre-Computer Science	CSCE 1030
Pre-Information Technology	CSCE 1030
Pre-Computer Engineering	CSCE 1030
Pre-Electrical Engineering	MATH 1710
Pre-Mechanical and Energy Engineering	MATH 1710
Pre-Biomedical Engineering	MATH 1710
Pre-Materials Science and Engineering	MATH 1710
Pre-Mechanical Engineering Technology	MATH 1710
Pre-Construction Engineering Technology	MATH 1710



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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.

UNT Core Curriculum/Transfer of Core Curriculum: UNT complies with the mandate of the Texas Legislature regarding [Core 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](#) under the corresponding catalog year.

For additional program and contact information, visit the College of Engineering website at <https://engineering.unt.edu/advising>.