



College of Engineering

B.S. Biomedical Engineering

2023-2024 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.

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 1411 or 1311/1111	PHYS 1710/1730	PHYS 2425 or 2325/2125
PSCI 2305	GOVT 2305	TECM 2700	ENGL 2311
ENGL 1310	ENGL 1301	PSCI 2306	GOVT 2306
UNT Core: Creative Arts	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 2700	MATH 2318 or 2418	MATH 3410	MATH 2320# or 2420#
BIOL 2301/2311; CHEM 1420/1440; or PHYS 2220/2240	BIOL 2401 or 2301/2101 CHEM 1412 or 1312/1112 PHYS 2426 or 2326/2126	UNT Core: American History	See list of approved courses
BMEN 2210	N/A	UNT Core: Social & Behavioral Sciences	See list of approved courses
UNT Core: Language, Philosophy and Culture	See list of approved courses	BMEN 1400	N/A
BMEN 1300	N/A	BMEN 2320	N/A

THIRD YEAR FALL		THIRD YEAR SPRING	
UNT Requirement	TCCNS Option	UNT Requirement	TCCNS Option
MATH 2730 or 3350	MATH 2315 or 2415	BMEN 3312	N/A
BMEN 3310	N/A	BMEN 3321	N/A
BMEN 3311	N/A	Track Elective	N/A
BMEN 3350	N/A	Track Elective	N/A
Track Elective	N/A		

FOURTH YEAR FALL		FOURTH YEAR SPRING	
UNT Requirement	TCCNS Option	UNT Requirement	TCCNS Option
BMEN Elective (Advanced)	N/A	BMEN 4222	N/A
BMEN 4212	N/A	BMEN Elective (Advanced)	N/A
BMEN Elective (Advanced)	N/A	Track Elective	N/A
BMEN 4007	N/A	Track Elective or BMEN Elective (Advanced)	N/A
Track Elective or BMEN Elective (Advanced)	N/A		



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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 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

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 B.S. Biomedical Engineering majors.

UNT Core: Mathematics

This requirement can be met by fulfilling the B.S. Biomedical Engineering program requirement (see next column).

UNT Core: Life & Physical Sciences

This requirement will be met by fulfilling the B.S. Biomedical Engineering program requirement (see next column).

UNT Core: American History

Two courses from: **HIST 1301**, **1302**, **2301**

UNT Core: Government/Political Science

GOVT 2305 and **2306**

UNT Core: Creative Arts

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

UNT Core: Language, Philosophy and Culture

One course from: **ARTS 1303**; **ENGL 2321**, **2326**, **2331**, **2332**, **2333**, **2341**, or **2351**; **HIST 2321** or **2322**; **PHIL 1301**, **1304**, **2303**, or **2306**

UNT Core: Social & Behavioral Sciences

One course from: **ANTH 2346** or **2351**; **COMM 1307**; **CRIJ 1301**; **ECON 2301** or **2302**; **GEOG 1303**; **PSYC 2301** or **2330**; **SOCI 1301**; **SOCW 2361**; **SPCH 1318**; **TECA 1354**

UNT Core: Core Option Courses

This requirement will be met by fulfilling the B.S. Biomedical Engineering program requirements (see next column).

Biomedical Engineering: Major Requirements

No TCCNS options available.

Biomedical Engineering: Other Course Requirements

TCCNS options:

Required course in Technical Writing:

- **ENGL 2311** (also fulfills a portion of Communication core requirements)

Required courses in Mathematics:

- **MATH 2313** or **2413** (also fulfills Mathematic core requirements)
- **MATH 2314** or **2414** (also fulfills Core Option core requirements)
- **MATH 2315** or **2415**
- **MATH 2318** or **2418**
- **MATH 2320** or **2420** (approved substitution)

Required courses in Laboratory Science:

- **BIOL 2401** or **2301/2101** or **CHEM 1412** or **1312/1112** or **PHYS 2426** or **2326/2126**
- **CHEM 1411** or **1311/1111**
- **PHYS 2425** or **2325/2125**

Laboratory Science courses listed above also fulfill Life & Physical Sciences and a portion of Core Option core requirements.

A GPA of 2.0 or better is required in all degree major courses including, but not limited to, engineering, math, sciences, laboratory sciences, and technical electives.

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



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Biomedical Engineering: Track Selection

Students interested in pursuing a Bachelor's Degree in Biomedical Engineering will be able to choose from one of the following tracks (18 hours):

- Comprehensive Biomedical Engineering: 18 hours in BMEN courses
- Biomedical Instrumentation: 18 hours in EENG courses
- Biomechanics: 18 hours in MEEN courses
- Biocomputing: 18 hours in CSCE courses
- Biotechnology: 18 hours in BIOC/Biol courses
- Pre-med: 18 hours in BIOC/Biol courses+ additional courses as deemed necessary by the Pre-med program
- Biomaterials: 18 hours in MTSE courses
- Computational Epidemiology: 18 hours in CSCE courses, including COSC 2336 or 2436
- Business Foundations Track: 12 hours in Business Foundations courses*
- Management: 12 hours in Management courses*
- Marketing: 12 hours in Marketing courses*
- Entrepreneurship: 12 hours in Entrepreneurship courses*

No TCCNS options available for:

- BMEN
- EENG
- MEEN
- BIOC
- MTSE
- Management
- Marketing
- Entrepreneurship

*Students choosing Business electives will need to complete 18 hours of Biomedical Engineering (BMEN) Electives.

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 based on their high school graduation rank and SAT/ACT scores. See below for the full requirements:

Engineering Technology Programs: Freshman applicants to the Construction Engineering Technology or Mechanical Engineering Technology programs must have a math SAT score of 570 or better, or a math ACT score of 22 or better.

	ACT	SAT (Feb '16 or prior)	SAT (March '16 or after)
Top 25%	Math score of 23+ and a composite 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 composite 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 composite 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 composite score of 24+	Math score of 600+ and a total score of 1100+	Math score of 620+ and a total score of 1170+

Construction Management: Freshman applicants to the Construction Management program are automatically admitted when their admissions to the university is met.

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

College of Engineering: Admission Requirements (Continued)

Transfer, International and Post-Baccalaureate: Transfer applicants must have a minimum 2.0 GPA in math/science/engineering courses and be eligible to enroll in MATH 1710 (Calculus I; TCCNS: MATH 2313 or 2413) or higher. MATH 1650 (Pre-Calculus; TCCNS: MATH 2312 or 2412) completed with a grade of 'C' or higher is a prerequisite to enroll in MATH 1710/Calculus I.

Students not meeting the admission requirements for the major to be directly enrolled in a degree major 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 within 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

Special Notes

Hours Required and General/College Requirements: A minimum of 120 semester hours, of which 36 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 Student Advising website at <http://engineering.unt.edu/advising>.