

College of Engineering

B.S. Mechanical & Energy 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. Mechanical & Energy Engineering degree within four years, students should plan to take Calculus I (MATH 2313 or 2413 or 2513) and MEEN 1000 (available at UNT only) during the first semester of their freshman 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.

ENGL 2311 is required for all College of Engineering majors.

UNT Core: Mathematics

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

UNT Core: Life & Physical Sciences

This requirement will be met by fulfilling the Mechanical & Energy 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

MEEN 1000 offered at UNT is a required course for the major and will satisfy the Discovery requirement.

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.

Mechanical & Energy Engineering: Engineering Fundamentals Requirements

TCCNS options:

- ENGR 1204 or 1304
- ENGR 2302 or 2402
- ENGR 2303 or 2403 or ENGR 2301 (substitutes for UNT's ENGR 2301)
- ENGR 2332 or 2432 (substitutes for UNT's ENGR 2332)
- ENGR 2307
- COSC 1315 or 1415

Courses listed above are TCCNS options and do not include all courses required for the UNT Mechanical & Energy Engineering major.

Mechanical & Energy Engineering: Major Requirements

No TCCNS options available.

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Mechanical & Energy Engineering: Other Course Requirements

TCCNS options:

Required courses in technical writing:

- ENGL 2311

Required courses in mathematics:

- MATH 2313 or 2413 or 2513 (fulfills both Mathematics and major requirements).
- MATH 2314 or 2414
- MATH 2315 or 2415

Math Elective

- MATH 2318 or 2418

Additional Math Elective options available at UNT.

Required courses in laboratory science:

- CHEM 1411 (or 1311/1111) *and* CHEM 1412 (or 1312/1112)
 - *CHEM 1415/1435, only offered at UNT is recommended. It will satisfy the Chemistry requirement.*
- PHYS 2425 or 2325/2125
- PHYS 2426 or 2326/2126

CHEM and PHYS courses listed above fulfill both Life and Physical Sciences core and major requirements.

Courses listed above are TCCNS options and do not include all courses required for the UNT Mechanical & Energy Engineering major.

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:

College of Engineering: Admission Requirements (continued)

Mathematics: This course will also fulfill Mechanical and Energy 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 Mechanical and Energy 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 127 semester hours, of which 42 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 major requirement courses and approved electives. Enrollment in the upper-division MEEN courses requires successful completion of all required lower-division MEEN and ENGR prefix 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>

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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 1420/1440* | CHEM 1412 or 1312/1112 |
| | CSCE 1020 | COSC 1315 or 1415 | PHYS 1710/1730 | PHYS 2425 or 2325/2125 |
| | ENGL 1310 | ENGL 1301 | TECM 2700 | ENGL 2311 |
| | MEEN 1000 | None | UNT Core: American History | See list of approved courses |

| YEAR | FALL SEMESTER | | SPRING SEMESTER | |
|-----------|-----------------------------|---------------------------------|----------------------|-------------------|
| | UNT Requirement | TCCNS Option | UNT Requirement | TCCNS Option |
| SOPHOMORE | Math Elective: MATH 2700 | MATH 2318 or 2418 | MATH 2730 | MATH 2315 or 2415 |
| | PHYS 2220/2240 | PHYS 2426 or 2326/2126 | ** MATH 3410 or 3310 | None |
| | ENGR 2301 | ENGR 2303 or 2403 or ENGR 2301# | MEEN 2210 | |
| | ENGR 1304 | ENGR 1204 or 1304 | ENGR 2302 | ENGR 2302 or 2402 |
| | UNT Core: American History | See list of approved courses | ENGR 2332# | ENGR 2332 or 2432 |

| YEAR | FALL SEMESTER | | SPRING SEMESTER | |
|--------|--|------------------------------|--|--------------|
| | UNT Requirement | TCCNS Option | UNT Requirement | TCCNS Option |
| JUNIOR | MEEN 3250 | None | MEEN 3230 | None |
| | MEEN 3110 | | MEEN 3242 | |
| | MEEN 3120 | | MEEN 3130 | |
| | MEEN 3240 | | MEEN 3210 | |
| | ENGR 2405 or EENG 2610 | ENGR 2307 | ENGR 3450/3451 | |
| | UNT Core: Government/ Political Science | See list of approved courses | UNT Core: Government/ Political Science | |

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| YEAR | FALL SEMESTER | | SPRING SEMESTER | |
|--|--|------------------------------|-------------------------------|--------------|
| | UNT Requirement | TCCNS Option | UNT Requirement | TCCNS Option |
| S E N I O R | MEEN 4150 | None | Capstone: MEEN 4250 | None |
| | Energy Engineering Elective | | Energy Engineering Elective | |
| | MEEN 3100 | | Technical Elective (advanced) | |
| | UNT Core: Language, Philosophy and Culture | | Technical Elective (advanced) | |
| | UNT Core: Social & Behavioral Science | | UNT Core: Creative Arts | |
| | See list of approved courses | See list of approved courses | See list of approved courses | |

* Note: Mechanical & Energy Engineering program requires CHEM 1415/1435 offered at UNT or CHEM 1411 and CHEM 1412 (TCCNS values). The College of Engineering strongly recommends that the student takes CHEM 1415/1435 at UNT.

** Note: prerequisites for MATH 3410 are MATH 2314 or MATH 2414 (TCCNS Values). MATH 2318 or MATH 2418 recommended (TCCNS values).