



Required Coursework for Admission Consideration

| Course Name | Hrs. | TCCNS | TAMU |
|---------------------------------|----------|--------------------------|----------------------------|
| Engineering Math I | 4 | MATH 2413 | MATH 151 |
| Engineering Math II | 4 | MATH 2414 | MATH 152 |
| Chemistry I | 4 | CHEM 1411 (1311/1111) | CHEM 119 |
| Chemistry II | 4 | CHEM 1412 (1312/1112) | CHEM 120 |
| Physics for Engineers I | 3 | PHYS 2425 or 2325 | PHYS 206 (See Note) |
| Physics for Engineers II | 3 | PHYS 2426 or 2326 | PHYS 207 (See Note) |

This transfer course sheet is applicable for applicants applying between August 1st, 2024 and October 15th, 2025.

Transfer applicants admitted to Texas A&M Engineering with credit for PHYS 2425 (2325/2125) and PHYS 2426 (2326/2126) will only receive 6 credit hours towards their Engineering bachelor's degree if entering AFTER Spring 2018.

- Courses listed should be completed with a grade of B or better.
- Students may have to complete College Algebra (MATH 1314) or Pre-Calculus (MATH 2412) at their institution before taking MATH 2413.
- College Algebra, Trigonometry and Pre-Calculus are transferable courses but **will not** apply to the Materials Science and Engineering degree plan.
- Physics for Engineers II (PHYS 207) **must** be completed or in progress at the time of application.

The recommendations below represent what a typical TAMU student's schedule looks like during the first four semesters. If working to complete an Associate's Degree before transferring, please align your degree plan to satisfy TAMU degree requirements. You may not have to complete the coursework in the sequence below but this major recommends specific coursework to be completed.

First Year

FALL SEMESTER

| TCCNS | TAMU | Course Name | Hrs. |
|-----------------------|---------------------|---------------------------------------|-----------|
| CHEM 1411 (1311/1111) | CHEM 119 | Chemistry I | 4 |
| MATH 2413 | MATH 151 | Engineering Math I | 4 |
| HIST 1301 | HIST 105 | History of the U.S. | 3 |
| ENGL 1301 or 1302 | ENG 103 or ENGL 104 | Composition and Rhetoric ¹ | 3 |
| Total | | | 14 |

SPRING SEMESTER

| TCCNS | TAMU | Course Name | Hrs. |
|-----------------------|----------|--------------------------------------|-----------|
| PHYS 2425 (2325) | PHYS 206 | Physics for Engineers I ² | 3 |
| CHEM 1412 (1312/1112) | CHEM 120 | Chemistry II | 4 |
| MATH 2414 | MATH 152 | Engineering Math II | 4 |
| HIST 1302 | HIST 106 | History of the U.S. | 3 |
| Total | | | 14 |

Second Year

FALL SEMESTER

| TCCNS | TAMU | Course Name | Hrs. |
|------------------|--|---|-----------|
| MATH 2415 | MATH 251 | Engineering Math III ³ | 3 |
| PHYS 2426 (2326) | PHYS 207 | Physics for Engineers II ² | 3 |
| GOVT 2305 | POLS 206 | American National Government | 3 |
| | core.tamu.edu | Social and Behavioral Sciences ⁴ | 3 |
| Total | | | 12 |

SPRING SEMESTER

| TCCNS | TAMU | Course Name | Hrs. |
|--------------|--|---|-----------|
| ENGL 2311 | COMM 205 or ENGL 210 | Communication | 3 |
| GOVT 2306 | POLS 207 | State & Local Government | 3 |
| | core.tamu.edu | Creative Arts ⁴ | 3 |
| | core.tamu.edu | Language, Philosophy & Culture ⁴ | 3 |
| Total | | | 12 |



Materials Science and Engineering
College of Engineering
msen-ug-advising@tamu.edu | (979) 862-4032
engineering.tamu.edu/materials

2024-2025 Transfer Course Sheet
Minimum GPA | 3.0
Minimum Transferable Hours | 24
Maximum Transferable Hours | 90
Second-Choice Major Eligible | YES

Notes:

1. Either ENGL 1301 or ENGL 1302 will fulfill three of the six required credit hours of Communication requirements.
2. You may take the four-credit version of PHYS but only three credits will be applied.
3. MATH 253 is an acceptable substitution for MATH 251. It is recommended that applicants complete the calculus sequence to fulfill the MATH 151, 152, and 251 degree requirement, and for all of these courses to be completed with a grade of 'B' or better.
4. Consider taking courses that fulfill the 3 hours of [International and Cultural Diversity requirement](#) when completing the Social and Behavioral Sciences, free electives and Creative Arts requirements.

Coursework Timeline

- Competitive applicants will have the **required** coursework completed by the application deadline.
- Applicants to the summer/fall term **may be** asked to submit final spring grades.
- Summer coursework **will not** be considered for summer/fall applicants.
- Fall coursework **will not** be considered for spring applicants.
- Applicants to the spring term should have the required coursework completed by the end of Summer II semester before applying.

Additional Transfer Requirements

- The Department of Materials Science and Engineering is looking for students interested in pursuing our degree as a focus. Students should indicate our department as the primary major they are interested in if they wish to be admitted. The essay and supporting materials should reflect the student's interest in a career in materials engineering. Preference is given to essays indicating experience in the field, special knowledge of materials engineering, and/or participation in extracurricular activities or organizations related to materials engineering.
- Meeting minimum requirements **does not** guarantee admission. The entire record is reviewed for consistency in coursework and grades.
- Transfer applicants should have completed at least 2 full semester course loads of a total of 24 transferable hours (minimum) after graduating from high school.

Additional Information

- The MSEN BS degree plan has an upper-level math requirement, **MATH 307**, which includes some elements of both differential equations and linear algebra. Transfer students who have taken a differential equations course (the equivalent of MATH 308) should expect to either take MATH 307, or an alternative linear algebra course approved by the UG advising office.
- Transfer applicants **should NOT** accept transfer admission to any major with the intent of later applying for an on-campus change of major.
- Applicants **should note** that time to graduation may still require two (2) or more years from the initial semester at Texas A&M University.
- Students are encouraged to complete or in progress of completing a computer programming course. Any language is acceptable: however, (in order of preference) Python, Matlab, and C++ are the preferred languages

Career & Educational Opportunities

Materials science and engineering is an interdisciplinary field centered on understanding the physical properties of matter and designing materials with specific properties to serve a desired function. Materials scientists study the connections between the synthesis and processing of a material, its underlying structure, and its resulting properties. Materials engineers develop materials and manufacturing techniques and integrate these materials into commercial products.

The practicing materials scientist or engineer has a working knowledge of different processing, characterization, and modelling and simulation techniques, which allow them to solve fundamental materials challenges, enabling the development of new devices and technologies. Materials scientists and engineers play crucial roles in nearly all industry sectors including energy, defense, biomedical, semiconductors, transportation, infrastructure, and personal care products.

This undergraduate major is comprised of 128 credit hours building a strong foundation in chemistry, physics and mathematics to explore the fundamental concepts and techniques critical to the field of materials science and engineering. Students have the flexibility to explore interdisciplinary studies or to focus in greater depth on one or more areas of concentration. For more information, please visit careercenter.tamu.edu.

Transfer Course Sheet Notes

1. Admission preference is given to applicants with the highest GPA and the most appropriate courses completed.
2. Transfer applicants are encouraged to complete [University Core Curriculum](#) coursework found in the [Undergraduate Catalog](#) unless specified above.
3. This Transfer Course Sheet was supported in a partnership between the Office of Admissions and the College of Engineering at Texas A&M University with the Undergraduate Catalog having the most extant and definitive information.