

Data Engineering

College of Engineering Jeana Goodson, Miriam Morales, Julie Wellmann

2023-2024 Transfer Course Sheet

Minimum GPA | 4.0 Minimum Transferable Hours | 24 Maximum Transferable Hours | N/A Second-Choice Major Eligible | NO

Required Coursework for Admission

Course Name	Hrs.	TCCNS	TAMU
Engineering Math I	4	MATH 2413	MATH 151
Engineering Math II	4	MATH 2414	MATH 152
Chemistry for Engineering	4	CHEM 1409 or 1412	CHEM 107/117 or CHEM 120
Newtonian Mechanics for Engineering and Science	3	PHYS 2425 or 2325	PHYS 206 or 218

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 Trigonometry and Pre-Calculus (MATH 2412) at their institution before taking MATH 2413.
- Trigonometry and Pre-Calculus are transferable courses but will not satisfy the Mathematics requirements in this degree plan.
- College Algebra is a transferable course but will not satisfy the Mathematics requirements in this degree plan.

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 requires specific coursework to be completed.

First Year

FALL SEMESTER

TCCNS	TAMU	Course Name		Hrs.
	CHEM 107/117	Chemistry for Enginee	ring	4
MATH 2413	MATH 151	Engineering Math I		4
ENGL 1301 or 1302	core.tamu.edu	ENGL 103 or 104		3
GOVT 2305	POLS 206	Government/Political Science		3
			Total	13

SPRING SEMESTER

TCCNS	TAMU	Course Name	Hrs.
PHYS 2425 or 2325	PHYS 206	Physics – Mechanics*	3
MATH 2414	MATH 152	Engineering Math II	4
	core.tamu.edu	American History	3
GOVT 2306	POLS 207	Government/Political Science	3
		Total	13

Second Year

FALL SEMESTER

TCCNS	TAMU	Course Name	Hrs.
MATH 2415	MATH 251/253	Calculus III**	3
	STAT 211	Principles of Statistics I	3
PHYS 2426 or 2326	PHYS 207	Electricity and Magnetism for Engineering and Science*	3
	CSCE 121	Intro to Prog Design & Concepts	4
		Total	13

SPRING SEMESTER

TCCNS	TAMU	Course Name	Hrs.
	MATH 304	Linear Algebra	3
	DAEN 210	Uncertainty Modeling	3
	CSCE 221	Data Structures and Algorithms	3
	core.tamu.edu	Social and Behavioral Science or Creative Arts***	3
		Total	13

- *You may take the four-credit version of PHYS but only three credits will be applied
- **MATH 253 is an acceptable substitution for MATH 251.
- ***Consider taking courses that fulfill the 3 hours of <u>International and Cultural Diversity requirement</u> when completing the Social and Behavioral Sciences, free electives and Creative Arts requirements



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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 spring final grades, this is not a guarantee.
- 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

- Transfer applicants should have completed a full semester (spring or fall) course load of 12 transferable hours (minimum) after graduating from high school.
- The Data Engineering program is looking for students who are 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 that the student is interested in pursuing our degree.
- Meeting minimum requirements does not guarantee admission. The entire record is reviewed for consistency in coursework and grades.
- The strongest applicants will have completed the required calculus sequence, two sciences, and a programming course in either C, C++, Java, or Python.

Additional Information

- Applicants should be serious about earning a degree in Data Engineering.
- Communication between applicant and academic advisors in data engineering is encouraged.
- Essay should demonstrate expressed interest in the major and/or some indication that the student has experience in the field. If applicable, it should also include an explanation of borderline performance (e.g. medical issues, family crisis, etc.).
- Transfer applicants are instructed NOT to accept transfer admission to any major with the expectation of later applying for an on-campus change of major.
- Prospective students should refer to the Texas A&M Transfer Course Equivalency website for common course numbers by institution.
- Transfer students should plan on taking the appropriate ENGR coursework for ENGR 102/216/217 at Texas A&M University.

Career & Educational Opportunities

The Data Engineering program trains students in data handling, manipulation, mining, visualization, and storage methods that lead to optimal information and knowledge extraction to facilitate decision-making in complex systems. Data Engineering is an emerging field focused on transforming data into contextual information using quantitative and computational tools. The program includes a two-semester long capstone senior design experience, which is a part of the hands-on experience with workshop-style real-world problem-solving situations. 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 <u>University Core Curriculum</u> coursework found in the <u>Undergraduate Catalog</u> 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.