

# Mechanical Engineering College of Engineering <u>mechanical-undergradprogram@tamu.edu</u> <u>engineering.tamu.edu/mechanical</u>

# 2023-2024 Transfer Course Sheet Minimum GPA | 3.25 Minimum Transferable Hours | 24 Maximum Transferable Hours | N/A Second-Choice Major Eligible | NO

## Required Coursework for Admission

TAMU Course Name	TAMU Hrs.	TCCNS	TAMU Course Number		
Engineering Math I	4	MATH 2413	MATH 151		
Engineering Math II	4	MATH 2414	MATH 152		
Physics for Engineers I	3	PHYS 2425 or 2325	PHYS 206		
Physics for Engineers II	3	PHYS 2426 or 2326 <sup>1</sup>	PHYS 207		
Chemistry for Engineers and Lab	4	CHEM 1409 or 1412 <sup>2</sup>	CHEM 107/117 or CHEM 120		
Composition and Rhetoric	3	ENGL 1301 or ENGL 1302	ENGL 103 or ENGL 104		

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.

- 1. PHYS 2426 (or 2326) must be complete or in progress at time of application.
- Students attending an institution without an equivalent to CHEM 107/117 can transfer an equivalent to Fundamentals to Chemistry II (CHEM 120 – CHEM 1412) to fulfill the CHEM 107/117 requirement.
- All required coursework must 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.

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				SPRING SEMESTER				
TCCNS	ТАМИ	Course Name	Hrs.	TCCNS	TAMU	Course Name		Hrs.
	<u>core.tamu.edu</u>	American History	3	PHYS 2425 (2325)	PHYS 206	Physics for Engineers	<sup>2</sup>	3
CHEM 1411 (1311/1111) CHEM 1409	CHEM 119 or CHEM 107/117	Chemistry I	4	CHEM 1412 (1312/1112)	CHEM 120	Chemistry II <sup>3</sup>		4
MATH 2413	MATH 151	Engineering Math I	4	MATH 2414	MATH 152	Engineering Math II		4
ENGL 1301	ENGL 103	Composition & Rhetoric <sup>1</sup>	3		core.tamu.edu	American History		3
		Total	14				Total	14

#### Second Year

FALL SEMESTER			SPRING SEMESTER				
TCCNS	ТАМИ	Course Name	Hrs.	TCCNS	ΤΑΜυ	Course Name	Hrs.
MATH 2415	MATH 253	Engineering Math III <sup>4</sup>	3		MATH 308	Differential Equations	3
PHYS 2426 (2326)	PHYS 207	Physics for Engineers II	3		<u>core.tamu.edu</u>	Social & Behavioral Sciences <sup>5</sup>	3
ENGL 2311	ENGL 210	Technical Business Writing	3		<u>core.tamu.edu</u>	Creative Arts <sup>5</sup>	3
GOVT 2305	POLS 206	American Government	3	GOVT 2306	POLS 207	State & Local Government	3
		Total	12			Tota	12



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### 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. Students that take CHEM 107/117 (CHEM 1410) do not need to take CHEM 119 and CHEM 120.
- 4. Engineering Math III should be completed with a grade of B or better. 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 requirements.
- 5. Consider taking courses that fulfill the 3 hours of <u>International and Cultural Diversity requirement</u> when completing the Social and Behavioral Sciences and/or Creative Arts requirements.

## **Coursework Timeline**

- Competitive applicants will have the required coursework completed or in progress by the application deadline.
- Applicants to the summer/fall term may be asked to submit spring final grades, this is not a guarantee of admission.
- Fall coursework **will not** be considered for spring applicants.

### **Additional Transfer Requirements**

- The J. Mike Walker '66 Department of Mechanical Engineering is looking for students who are interested in pursuing our degree as a focus. Students should indicate our department as the primary major if they wish to be admitted. The essay and supporting materials should reflect that the student is interested in pursuing our degree.
- Applicant's essay MUST convey their understanding of and desire to pursue a Mechanical Engineering degree and planned career path.
- Meeting minimum requirements does not guarantee admission. The entire record is reviewed for consistency in coursework and grades.

### **Additional Information**

- Applicants should be serious about earning a degree in Mechanical Engineering.
- Admission is on a competitive basis for a fixed number of places. More detailed information can be found at <a href="https://engineering.tamu.edu/mechanical/prospective-students.html">https://engineering.tamu.edu/mechanical/prospective-students.html</a>
- Competitive applicants will have at least all of the Required Coursework completed and have earned a grade of 'B' or better in each of the required courses.
- 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.
- Degree candidates will be required to fulfill the following <u>University Core Curriculum Requirements</u> to graduate: American History electives, a social and behavioral science elective, and a creative arts elective. These are options for additional coursework that your institution may offer to complete. In addition, 3 credit hours of international and cultural diversity and 3 hours of cultural discourse must be satisfied.
- Cultural Discourse can **only** be completed at Texas A&M.
- Prospective students should refer to the Texas A&M Transfer Course Equivalency website for common course numbers by institution.
- There are few exceptions for ENGR 102/216/217 substitutions. Transfer students should plan on taking the appropriate ENGR coursework. Substitutions must be approved by the College of Engineering.
- The department is unable to provide scholarships to incoming transfer students.

#### **Career & Educational Opportunities**

Mechanical engineering is one of the oldest engineering disciplines. Traditionally concerned with harnessing and converting energy forms, mechanical engineers are inherently multi-disciplinary. For example, the design of a car engine combines the fields of chemistry, thermodynamics, heat transfer, fluid dynamics, electronic controls, dynamics and vibrations, materials science, and mechanical design. Although the mechanical engineer may specialize in one of these fields, a cursory knowledge of each of these fields is necessary to interact with other engineers. Mechanical engineers design machines, devices, various products and control systems, and work with the generation, conversion, transmission, and utilization of mechanical and thermal power. Assignments often include analysis and synthesis of mechanical, thermal, and fluid systems. Mechanical engineers are also responsible for characterization, specification, and analysis of materials used in design and manufacturing. Manufacturing systems, robotics, electromechanical devices, and control systems are also the purview of the mechanical engineer. For more information please visit <u>careercenter.tamu.edu</u>.

## **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.