

## Aerospace Engineering

College of Engineering
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# 2023-2024 Transfer Course Sheet

Minimum GPA | 3.75 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	PHYS 207		
Chemistry for Engineers and Lab**	4	CHEM 1409 or 1412	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 receive only 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.
  - \*\*Prospective students attending an institution without an equivalent to CHEM 107/117 can transfer an equivalent to Fundamentals of Chemistry II (CHEM 120 CHEM 1412) to fulfill the CHEM 107/117 requirement.

The recommendations below represent a typical TAMU student's schedule 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	TAMU	Course Name	Hrs.	TCCNS	TAMU	Course Name	Hrs.
	core.tamu.edu	American History	3	PHYS 2425 (2325)	PHYS 206	Physics for Engineers I**	3
CHEM 1409 CHEM 1411 (1311/1111)	CHEM 107/117 or CHEM 119	Chemistry I	4	CHEM 1412 (1312/1112)	CHEM 120	Chemistry II***	4
MATH 2413	MATH 151	Engineering Math I	4	MATH 2414	MATH 152	Engineering Math II	4
ENGL 1301	ENGL 103	Composition & Rhetoric*	3		core.tamu.edu	American History	3
		Total	14			Total	14

<sup>\*</sup>Either ENGL 1301 or ENGL 1302 will fulfill three of the six required credit hours of Communication requirements.

## Second Year FALL SEMESTER SPRING SEMESTER SPRING SEMESTER

TCCNS	TAMU	Course Name	Hrs.	TCCNS	TAMU	Course Name	Hrs.
MATH 2415	MATH 253	Engineering Math III*	3		MATH 308	Differential Equations	3
PHYS 2426 (2326)	PHYS 207	Physics for Engineers II	3		core.tamu.edu	Social and Behavioral Science or Creative Arts**	3
ENGL 2311	ENGL 210	Technical Business Writing	3		core.tamu.edu	Social and Behavioral Science or Creative Arts**	3
GOVT 2305	POLS 206	American National Government	3	GOVT 2306	POLS 207	State & Local Government	3
		Total	12			Total	12

<sup>\*</sup>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.

<sup>\*\*</sup>You may take the four-credit version of PHYS but only three credits will be applied.

<sup>\*\*\*</sup>Students that take CHEM 107/117 (CHEM 1410) do not need to take CHEM 119 and CHEM 120.

<sup>\*\*</sup> Consider taking courses that fulfill the 3 hours of <u>International and Cultural Diversity requirement</u> when completing the Social and Behavioral Sciences or 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 maybe asked to submit spring final grades, this is not a guarantee of admission.

## Additional Transfer Requirements (set by the college/department)

- The Department of Aerospace 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. Applicant's essay **MUST** convey their understanding of and desire to pursue an Aerospace 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 Aerospace Engineering.
- Admission is on an extremely competitive basis for limited available slots.
- 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.
- 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.
- Prospective students should refer to the <u>Texas A&M Transfer Course Equivalency website</u> 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; if exceptions are approved, students will take ENGR 289. Substitutions must be approved by the College of Engineering.
- Department looks for expressed interest in the major and/or some indication that the student has experience in the field of Aerospace Engineering and/or some explanation of borderline performance (e.g. medical issues, family crisis, etc.)

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

Aerospace engineering is a complex, rapidly changing field. Its primary application is the design and development of flight vehicles, such as aircraft, missiles, spacecraft, and satellites. Aerospace engineering is also important and applicable to other vehicles and systems – including submarines, automobiles, trucks, and rapid transit – and can include advanced robotics, exotic materials, and computational simulations. Working in both aeronautics (planes) and astronautics (space), aerospace engineers conduct research and design and develop vehicles and systems for air, space, and any fluid environment. Aerospace engineers commonly focus on specific areas in the fields of aerodynamics and propulsion, dynamics and controls, or materials and structures. 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. 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.
- 3. Transfer applicants are encouraged to complete <u>University Core Curriculum</u> coursework found in the <u>Undergraduate Catalog</u> unless specified
- 4. 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.