

Biological and Agricultural Engineering College of Agriculture & Life Sciences Ashlea Schroeder | <u>advising@baen.tamu.edu</u> <u>baen.tamu.edu</u> 2023-2024 Transfer Course Sheet Minimum GPA | 2.75 Minimum Transferable Hours | 24 Second-Choice Major Eligible | YES

Required Coursework for Admission

Course Name	Hrs.	TCCNS	ТАМИ
Engineering Math I	4	MATH 2413	MATH 151
Engineering Math II	4	MATH 2414	MATH 152
Newtonian Mechanics for Engineering & Sci	3	PHYS 2425 or 2325	PHYS 206
Chemistry II	4	CHEM 1409 (1309/1109) or 1412 or BIOL 111	CHEM 107/117 or CHEM 120 or BIOL 111

• Courses listed should be completed with a grade of B or better.

• Applicants must have CHEM 1411 to take CHEM 1412

• Students may have to complete Pre-Calculus (MATH 2412) at their institution before taking MATH 2413.

• We will only accept 3 credit hours for PHYS 2325 and 3 credit hours for PHYS 2326; the one-hour labs are not applicable towards BAEN.

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 or recommends specific coursework to be completed.

First Year

FALL SEMESTER			SPRING SEMESTER						
TCCNS	TAMU	Course Name		Hrs.	TCCNS	TAMU	Course Name		Hrs.
MATH 2413	MATH 151	Engineering Math I		4	MATH 2414	MATH 152	Engineering Math II		4
CHEM 1411 (1311/1111)	CHEM 119	Chemistry I		4	CHEM 1412 (1312/1112)	CHEM 120	Chemistry II		4
	core.tamu.edu	American History		3	PHYS 2425 (2325 only)	PHYS 206	Newtonian Mechanics	S	3/4
	<u>core.tamu.edu</u>	Communication		3	GOVT 2305	POLS 206	American National Government		3
			Total	14				Total	15

Second Year

FALL SEMESTER			SPRING SEMESTER				
TCCNS	TAMU	Course Name	Hrs.	TCCNS	TAMU	Course Name	Hrs.
BIOL 1406	BIOL 111	Introductory Biology 1	4	MATH 2320	MATH 308	Differential Equations	3
MATH 2415	MATH 253	Engineering Math III	4	CHEM 2323/2423	CHEM 227/237	Organic Chemistry I	4
PHYS 2426 (2326 only)	PHYS 207	Electricity and Magnetism	3/4	GOVT 2306	POLS 207	State & Local Government	3
	<u>core.tamu.edu</u>	American History	3	ENGL 2311	ENGL 210	Technical and Business Writing	3
		Total	15			Total	13

• ENGL 1301 is a transferable course and will satisfy the first Communication requirement in this degree plan; ENGL 2311 is the second required communication course.

• Only 3 hours of Organic Chemistry is required for BAEN; you might be required to complete the lab at your current institution.



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

- Students who have the following completed will have the best chance of being accepted:
 - 1. completed a minimum of 15-16 semester credit hours (SCH) of core math/sciences courses that transfer as TAMU MATH151, MATH 152 (or higher), PHYS 206 and either CHEM 107/117 or BIOL 111 (or equivalents) with a grade not less than "B"
 - 2. earned a math/science/engineering GPA of 2.75 or better
 - 3. earned a cumulative GPA of 2.75 or better
 - 4. minimal history of repeating, dropping or withdrawing from math/science/engineering courses
 - 5. not made a grade less than "C" in any course in the last semester of course work
- The Department of Biological and Agricultural Engineering 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.

Additional Information

- Applicants should be serious about earning a degree in Biological and Agricultural Engineering.
- 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.

Career & Educational Opportunities

Offered in conjunction with the College of Engineering, the biological and agricultural engineering program develops graduates who can pursue engineering careers in industry, academia, consulting or government. The curriculum is designed to produce graduates who are prepared to become practicing biological and agricultural engineers, many of whom will become registered professional engineers. Graduates of this program serve the engineering needs of clientele in environmental and natural resources, machine systems, food processing, bioprocessing, and agricultural production and processing. Students in this major learn to apply knowledge of physical and biological sciences, mathematics, and engineering principles to formulate and solve engineering problems. Engineering design is integrated throughout the curriculum, along with opportunities to develop communication, learning, and teamwork skills, culminating in a capstone design experience. Electives in the curriculum allow the student to specialize in one of the following areas: **Environmental and Natural Resources Engineering, Renewable Energy Engineering, Food and Bioprocess Engineering**, or **Machine Systems Engineering.** 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 Agriculture and Life Sciences at Texas A&M University with the Undergraduate Catalog having the most extant and definitive information.