



Biological and Agricultural Engineering  
 College of Agriculture & Life Sciences  
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[baen.tamu.edu](http://baen.tamu.edu)

2021-2022 Transfer Course Sheet  
 Minimum GPA | 2.75  
 Minimum Transferable Hours | 24  
 Second-Choice Major Eligible | YES

### 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                 |
| <b>Newtonian Mechanics for Engineering &amp; Sci</b> | <b>3</b> | <b>PHYS 2425 or 2325</b>      | <b>PHYS 206</b>          |
| Chemistry II   | 4        | CHEM 1409 (1309/1109) or 1412 | CHEM 107/117 or CHEM 120 |

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. For additional information regarding this degree update, please contact the advisor list above.

- Applicants must have CHEM 1411 in order to take CHEM 1412; students may also take 4 hours of CHEM 1409 – Chemistry for Engineers
- Applicants must have both MATH courses listed above and PHYS 206 completed and can complete either CHEM 1409/1412 or BIOL 1406 to be considered for admittance (15-16 SCH).
- Courses listed should be completed with a grade of B or better.
- Students may have to complete Pre-Calculus (MATH 2412) at their institution before taking MATH 2413.

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

| TCCNS                 | TAMU   | Course Name        | Hrs.      |
|-----------------------|--|--------------------|-----------|
| MATH 2413             | MATH 151   | Engineering Math I | 4         |
| CHEM 1411 (1311/1111) | CHEM 119   | Chemistry I        | 4         |
|                       | <a href="http://core.tamu.edu">core.tamu.edu</a> | American History   | 3         |
|                       | <a href="http://core.tamu.edu">core.tamu.edu</a> | Communication      | 3         |
| <b>Total</b>          |  |                    | <b>14</b> |

#### SPRING SEMESTER

| TCCNS                 | TAMU     | Course Name                  | Hrs.      |
|-----------------------|----------|------------------------------|-----------|
| MATH 2414             | MATH 152 | Engineering Math II          | 4         |
| CHEM 1412 (1312/1112) | CHEM 120 | Chemistry II                 | 4         |
| PHYS 2425 (2325 only) | PHYS 206 | Newtonian Mechanics          | 3/4       |
| GOVT 2305             | POLS 206 | American National Government | 3         |
| <b>Total</b>          |          |                              | <b>15</b> |

### Second Year

#### FALL SEMESTER

| TCCNS                 | TAMU   | Course Name               | Hrs.      |
|-----------------------|--|---------------------------|-----------|
| BIOL 1406             | BIOL 111   | Introductory Biology 1    | 4         |
| MATH 2415             | MATH 253   | Engineering Math III      | 4         |
| PHYS 2426 (2326 only) | PHYS 207   | Electricity and Magnetism | 3/4       |
|                       | <a href="http://core.tamu.edu">core.tamu.edu</a> | American History          | 3         |
| <b>Total</b>          |  |                           | <b>15</b> |

#### SPRING SEMESTER

| TCCNS          | TAMU         | Course Name                    | Hrs.      |
|----------------|--------------|--------------------------------|-----------|
| MATH 2320      | MATH 308     | Differential Equations         | 3         |
| CHEM 2323/2423 | CHEM 227/237 | Organic Chemistry I            | 4         |
| GOVT 2306      | POLS 207     | State & Local Government       | 3         |
| ENGL 2311      | ENGL 210     | Technical and Business Writing | 3         |
| <b>Total</b>   |              |                                | <b>13</b> |

- 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.



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Minimum GPA | 2.75  
Minimum Transferable Hours | 24  
Second-Choice Major Eligible | YES

#### 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 CBK GPR of 2.75 or better
  3. earned a cumulative GPR of 2.75 or better
  4. no history of repeating, dropping or withdrawing from 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.
- Please contact department regarding second-choice major consideration before applying.
- Highly recommend meeting with an academic advisor prior to submitting the application.

#### 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 [careercenter.tamu.edu](http://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 Agriculture and Life Sciences at Texas A&M University with the Undergraduate Catalog having the most extant and definitive information.