BACHELOR OF SCIENCE (B.S.) MAJOR IN CIVIL ENGINEERING

Minimum required: 126 semester credit hours

General Requirements

1. The general education core curriculum courses are listed in the degree plan below along with the statewide component code number. See the General Education Core Curriculum (http://mycatalog.txstate.edu/undergraduate/general-education-core-curriculum/) section of this catalog for the Texas State requirements and options in the core curriculum, including Honors courses.
2. Students must complete a minimum of 36 advanced hours (3000 or 4000 level courses).
3. Students entering Texas State with fewer than 16 credit hours completed after high school graduation will be required to take US 1100. All others will be exempt from taking this course.
4. No minor is required in this Bachelor of Science degree program because of the breadth of the foundation and support coursework.
5. Nine semester credit hours must be writing intensive (WI).
6. If two years of the same, non-English language are taken in high school, then no additional language hours will be required for the degree. In the absence of such high school language, two semesters of the same modern language must be taken at the college level.
7. All students in the Civil Engineering degree programs must complete Civil Engineering (CE) course prerequisites with a grade of “C” or higher.
8. For transfer students, 39 semester credit hours in chemistry, engineering, mathematics and physics (or their equivalents) may be transferred from a Texas public institution of higher education for the Civil Engineering Field of Study and be applied to the Bachelor of Science degree with a major in Civil Engineering at Texas State University. More information about the Field of Study (http://mycatalog.txstate.edu/undergraduate/general-information/academic-policies/texas-legislative-requirements/) is available in the Academic Policies section of this catalog. The transferable Texas Common Course Number (TCCN) is listed below the Texas State University course number in the following course list.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 2471</td>
<td>Calculus I</td>
<td>4</td>
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<tr>
<td>TCCN: MATH 2413</td>
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<tr>
<td>MATH 2472</td>
<td>Calculus II</td>
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<tr>
<td>TCCN: MATH 2414</td>
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<tr>
<td>MATH 2473</td>
<td>Integral Calculus with Multivariables and Series</td>
<td>4</td>
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<tr>
<td>TCCN: MATH 2415</td>
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<td></td>
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<tr>
<td>MATH 3323</td>
<td>Differential Equations</td>
<td>3</td>
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<tr>
<td>TCCN: MATH 2320</td>
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<tr>
<td>CHEM 1335</td>
<td>Engineering Chemistry</td>
<td>3</td>
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<tr>
<td>TCCN: CHEM 1309</td>
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<tr>
<td>CHEM 1135</td>
<td>Engineering Chemistry Laboratory</td>
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<tr>
<td>TCCN: CHEM 1109</td>
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Course Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>PHYS 1430</td>
<td>Mechanics</td>
<td>4</td>
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<tr>
<td>TCCN: PHYS 2425</td>
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<tr>
<td>PHYS 2425</td>
<td>Electricity and Magnetism</td>
<td>4</td>
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<tr>
<td>TCCN: PHYS 2426</td>
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<tr>
<td>ENGR 3311</td>
<td>Mechanics of Materials</td>
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<tr>
<td>TCCN: ENGR 2332</td>
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Total Hours 30

First Semester Hours | Second Semester Hours
---|---
US 1100 | 1 ENG 1310 (Communication Component Code 010 [TCCN ENGL 1301]) 3
MATH 2471 (Mathematics Component Code 020 [TCCN MATH 2413]) | 4 ENGR 2301 (TCCN ENGR 2301) 3
PHYS 1430 (Life and Physical Sciences Component Code 030 [TCCN PHYS 2425]) | 4 MATH 2473 (Component Area Option Code 090/092 [TCCN MATH 2415]) 4
ENGR 1304 | 3 CHEM 1335 (Life and Physical Sciences Component Code 030 [TCCN CHEM 1309 or 1409]) 3
CE 1210 | 2 CHEM 1135 (TCCN CHEM 1109 [taken with TCCN CHEM 1309]) 1
| CS 1342 | 3
| 14 | 17

Sophomore

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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</thead>
</table>
| MATH 3323  | 3 PHIL 1320 (Language, Philosophy, and Culture Component Code 040 [TCCN PHIL 2306]) | 3
| PHYS 2425 (Component Area Option Code 090/093 [TCCN PHYS 2426]) | 4 MATH 3376 3
| ENGR 3311  | 3 ENGR 3373 3
| Basic Science Elective | 4 CE 2340 3
| Communication Component Code 010 | 3 CE 2350 3
| CE 3320 | 3
| 17 | 18

Junior

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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</thead>
</table>
| American History Component Code 060 | 3 ECO 2301 (Social and Behavioral Sciences Component Code 080 [TCCN ECON 1301]) 3
| ENGR 3380  | 3 American History Component Code 060 3
| IE 3320 | 3 CE 3310 3
| CE 3330 | 3 CE 3331 3
Bachelor of Science (B.S.) Major in Civil Engineering

<table>
<thead>
<tr>
<th>Course Code</th>
<th>First Semester Hours</th>
<th>Second Semester Hours</th>
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<tbody>
<tr>
<td>CE 3350</td>
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<td>3</td>
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<tr>
<td>GEO 4356</td>
<td>3</td>
<td>3 Creative Arts Component</td>
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<tr>
<td>CE 4370</td>
<td>3 POSI 2320 (Government/Political Science Component</td>
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<tr>
<td>CE 4390</td>
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<td>3 CE Technical Elective I³</td>
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<tr>
<td>POSI 2310</td>
<td>3 CE Technical Elective I³</td>
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<tr>
<td>CE Infrastructure Design Elective²</td>
<td>3 CE Technical Elective II³</td>
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</table>

Total Hours: 126

1 Basic Science Elective - 4 hours may be chosen from the following:
   BIO 1330 and BIO 1130, BIO 1331 and BIO 1131, GEOL 1410

2 CE Infrastructure Design Elective may be chosen in consultation with a faculty advisor from the following: CE 4323, CE 4330, CE 4361

3 CE Technical Electives may be chosen in consultation with a faculty advisor from the following: CE 4100, CE 4200, CE 4300, CE 4310, CE 4311, CE 4320, CE 4321, CE 4322, CE 4350, CE 4351, CE 4360, CE 4362, CE 4371, CE 4392, ENGR 3190, and ENGR 3290.