This is not an official degree audit and it is subject to change. This chart is intended to be used by students who start out at Texas State. Please contact the College of Science Undergraduate Advising Center for advising.

**NOTE:** Students in the pre-med concentration must complete BIO 3421, MATH 2328 or MATH 3305, PHIL 1320 and PSY 1300.

**KEY**
- Arrows indicate prerequisites.
- Arrows with dotted lines indicate co-requisites.
- Arrows with dash lines are recommended prerequisites.
- Courses taught specific semesters are indicated with the following codes:
  - F - Fall
  - S - Spring
  - Su - Summer Session I or II
- Required WI courses: CHEM 3381, 4481, 4382
- Core courses must be completed:
  - Communication Component Code 010 (6 cr)
  - Mathematics Component Code 020 (3 cr)
  - Life & Physical Science Component Code 030 (6 cr)
  - Language, Philosophy, and Culture Component Code 040 (3 cr)
  - Creative Arts Component Code 050 (3 cr)
  - American History Component Code 060 (6 cr)
  - Government/Political Science Component Code 070 (6 cr)
  - Social and Behavioral Sciences Component Code 080 (3 cr)
  - Component Area Option Codes 090, 091, 092, 093, and 094 (6 cr)

US 1100 may be required for some students. Some majors require specific courses to be chosen from a component area. Consult with an advisor to determine the most expedient way to complete core and major specific requirements.

**BS – Biochemistry with a minor in biology (PRE-MED)**

<table>
<thead>
<tr>
<th>Freshman Spring semester</th>
<th>Freshman Fall semester</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MATH 2471</strong> (F,S,Su) Calculus I TCCNS: MATH 2413</td>
<td><strong>MATH 2472</strong> (F,S,Su) Calculus II TCCNS: MATH 2414</td>
</tr>
<tr>
<td><strong>CHEM 1341</strong> (F,S,Su) &amp; <strong>CHEM 1141</strong> (F,S,Su) General Chemistry I TCCNS: CHEM 1311+1411</td>
<td><strong>CHEM 1342</strong> (F,S,Su) &amp; <strong>CHEM 1142</strong> (F,S,Su) General Chemistry II TCCNS: CHEM 1312+1412</td>
</tr>
<tr>
<td><strong>CHEM 2341</strong> (F,S,Su) &amp; <strong>CHEM 2141</strong> (F,S,Su) Organic Chemistry I TCCNS: CHEM 2323+2123 or 2423</td>
<td><strong>CHEM 2342</strong> (F,S,Su) &amp; <strong>CHEM 2142</strong> (F,S,Su) Organic Chemistry II TCCNS: CHEM 2325+2125 or 2425</td>
</tr>
</tbody>
</table>

**Sophomore Spring semester**

| **PHYS 1430** (F,S) Mechanics I TCCNS: PHYS 2425/2325+2125 | **PHYS 2425** (F,S) Electricity & Magnetism TCCNS: PHYS 2426/2326+2126 |
| **CHEM 3390** (F) Physical Chemistry of Biochemistry | **CHEM 3375** (F) Principles of Biochemistry |
| **CHEM 3375** (F) Principles of Biochemistry | **CHEM 3380** (S) Analytical Biochemistry |

**Sophomore Fall semester**

| **CHEM 1330** (F,S,Su) & **BIO 1130** (F,S,Su) Functional Biology TCCNS: BIOL 1306+1406 | **BIO 1331** (F,S) & **BIO 1131** (F,S) Organismal Biology TCCNS: BIOL 1307+1407 |
| **CHEM 2450** (F,S,Su) Genetics TCCNS: BIO 2416 or 2316+2116 | **BIO 2400** (F,S) Microbiology TCCNS: BIO 2421 |

**Junior Spring semester**

| Extra advanced hours may be required. See advisor. | **BIO 3421** (S) Vertebrate Physiology | **CHEM 2342** (F,S,Su) & **CHEM 2142** (F,S,Su) Organic Chemistry II TCCNS: CHEM 2325+2125 or 2425 |

**Junior Fall semester**

| **CHEM 3380** (S) Analytical Biochemistry | **CHEM 3375** (F) Principles of Biochemistry | **CHEM 3381** (S) Biochemistry Techniques |

**Senior Spring semester**

| **MATH 2328** (F,S,Su) Elementary Statistics OR **MATH 3305** (F,S,Su) Intro to Probability & Statistics | **CHEM 4360** (F) Molecular Biology | **CHEM 4385** (S) Metabolism |

**Core courses must be completed:**
- Communication Component Code 010 (6 cr)
- Mathematics Component Code 020 (3 cr)
- Life & Physical Science Component Code 030 (6 cr)
- Language, Philosophy, and Culture Component Code 040 (3 cr)
- Creative Arts Component Code 050 (3 cr)
- American History Component Code 060 (6 cr)
- Government/Political Science Component Code 070 (6 cr)
- Social and Behavioral Sciences Component Code 080 (3 cr)
- Component Area Option Codes 090, 091, 092, 093, and 094 (6 cr)

**For Biology minor only:**
6 hours advanced biology electives, chosen in consultation with an academic advisor.

Check for additional prerequisites.

**DO NOT COUNT:** BIO 3351, 4305, 4402, 4403, 4408

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**Note:** In addition to major courses, students must also complete all core and minor requirements (if applicable) and any other requirements for graduation.

**2021 Catalog year: College of Science and Engineering**

SC-BBCM/BIO/PMBC