BS- Biology with Chemistry minor – PRE-PA (SC-BS/BIO/CHEM)

2018 Catalog year: College of Science and Engineering

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

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
- Required WI courses: CHEM 4416, 4464
- Additional WI courses: CHEM 3308, 3442, 3460, 4166, 4176, 4420, 4423, 4441, 4446, 4447, 4454, 4470, 4472

Core courses must be completed:

- _US 1100_  
- _COMM 1310_  
- _PHIL 1320_

- _ENG 1310_  
- _ENG 1320_  
- _ENG 2310-2360_

- _HIST 1310_  
- _HIST 1320_  
- _ART/DAN/MU/TH 2313_

- _POSI 2310_  
- _POSI 2320_  
- _PSY 1300_

US 1100 & ENG 1310 recommended for first semester. HIST 1310/1320 not recommended for first semester.

Extra advanced or non-advanced electives may be required to meet graduation requirements (check with advisor).

11 hours advanced biology electives, chosen in consultation with an academic advisor.

- BIO 4299 requires faculty and departmental approval to count towards advanced electives and must be taken twice.
- DO NOT COUNT BIO 3351, 4305, 4402, 4403, 4408

Check course prerequisites.

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**Freshman Fall semester**
- BIO 1330 (F,S) Functional Biology
- BIO 1130 (F,S)
  - Biological Chemistry

**Freshman Spring semester**
- CHEM 1341 (F,S,Su)
  - General Chemistry I
  - BIOL 1100

**Sophomore Fall semester**
- BIO 2400 (F,S)
  - Microbiology
- BIO 2450 (F,S,Su)
  - Genetics
- CHEM 2410 (F,S,Su)
  - General Chemistry I

**Sophomore Spring semester**
- CHEM 2341 (F,S,Su)
  - Organic Chemistry I
- CHEM 2342 (F,S,Su)
  - Organic Chemistry II

**Junior Fall semester**
- PHYS 1315 (F,S,Su)
  - General Physics I
- PHYS 1325 (F,S,Su)
  - General Physics II

**Junior Spring semester**
- PHYS 1115 (F,S,Su)
  - General Physics I
- PHYS 1125 (F,S,Su)
  - General Physics II

**Senior Fall semester**
- BIO 4416 (F,S)
  - Vertebrate Physiology
- BIO 4464 (F)
  - Vertebrate Anatomy

**Senior Spring semester**
- BIO 3421 (F,S)
  - Evolution
- BIO 4301 (F,S)
  - Evolution

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- Choose one set:
  - MATH 2321 (F,S, Su) & MATH 2328 (F,S, Su)
  - MATH 2471 (F,S, Su) & MATH 2328 (F,S, Su)
  - See advisor for guidance.

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- BIO 1331 (F,S)
  - Biological Chemistry
- CHEM 1331 (F,S)
  - General Chemistry I

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- CHEM 3410 (F,S,Su)
  - Quantitative Analysis
- CHEM 3421 (F,S,Su)
  - General Chemistry I

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- CHEM 2341 (F,S,Su)
  - Organic Chemistry I
- CHEM 2141 (F,S,Su)
  - Organic Chemistry II

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- BIO 2400 (F,S)
  - Microbiology
- BIO 4416 (F,S)
  - Vertebrate Physiology
- BIO 4464 (F)
  - Vertebrate Anatomy

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- 3 hours from:
  - CHEM 4333 – Spectroscopy (see dpt)
  - CHEM 4351– Intro to Polymers (see dpt)
  - CHEM 4375 – Biochemistry (F,S,Su)
  - CHEM 4390- Supramolecular Chemistry (see dpt)