

BACHELOR OF SCIENCE (B.S.) MAJOR IN BIOLOGY (TEACHER CERTIFICATION IN LIFE SCIENCE, GRADES 7-12)

**Minimum required: 125
semester credit hours**

Admission Requirement

- All students pursuing teacher certification must apply and be accepted to the Office of Educator Preparation (<http://mycatalog.txstate.edu/undergraduate/education/office-of-educator-preparation>).

General Requirements

- 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.
- A minor in Secondary Education is required.
- To satisfy graduation requirements for teacher certification, students must have at least a 2.75 overall GPA, a GPA of at least 2.50 in all assigned courses in the professional sequence with no grade below a "C," and a GPA of at least 2.75 in courses taken in the College of Science and Engineering at Texas State University with no grade below a "C," and a Secondary Education minor GPA of at least 2.50 with no grades less than a "C" in all minor courses.
- Majors must complete a minimum of 36 advanced hours (3000 or 4000 level courses).
- Nine semester credit hours must be writing intensive (WI).
- In addition to the major, minor and general education core curriculum requirements, students must also complete 21 hours of professional sequence courses under the College of Education. All coursework must be completed prior to EDST 4681.
- If two years of the same foreign language were 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.
- All students seeking teacher certification must apply for and be admitted to the Educator Preparation Program in order to enroll in education coursework and student teaching in the Junior and Senior years. Refer to the requirements for Admittance to the Educator Preparation Program through the Office of Educator Preparation (<http://mycatalog.txstate.edu/undergraduate/education/office-of-educator-preparation>).
- The Texas Education Agency (TEA) requires multiple background checks for progression through the Educator Preparation Program. Based on information recorded in your criminal history, you may be ineligible for issuance of a teaching certificate upon completion of the Educator Preparation Program. If you have a criminal history, you may obtain a Preliminary Criminal History Evaluation from TEA. For more information,

go to: https://tea.texas.gov/Texas_Educators/Investigations/Preliminary_Criminal_History_Evaluation-FAQs/.

- For transfer students, 24 semester credit hours in biology, chemistry and physics (or their equivalents) may be transferred from a Texas public institution of higher education for the Biology Field of Study and be applied to the Bachelor of Science degree with a major in Biology 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.

| Code | Title | Hours |
|-----------------|---------------------------------|-------|
| BIO 1330 | Functional Biology | 3 |
| TCCN: BIOL 1306 | | |
| BIO 1130 | Functional Biology Laboratory | 1 |
| TCCN: BIOL 1106 | | |
| BIO 1331 | Organismal Biology | 3 |
| TCCN: BIOL 1307 | | |
| BIO 1131 | Organismal Biology Laboratory | 1 |
| TCCN: BIOL 1107 | | |
| CHEM 1341 | General Chemistry I | 3 |
| TCCN: CHEM 1311 | | |
| CHEM 1141 | General Chemistry Laboratory I | 1 |
| TCCN: CHEM 1111 | | |
| CHEM 1342 | General Chemistry II | 3 |
| TCCN: CHEM 1312 | | |
| CHEM 1142 | General Chemistry Laboratory II | 1 |
| TCCN: CHEM 1112 | | |
| CHEM 2341 | Organic Chemistry I | 3 |
| TCCN: CHEM 2323 | | |
| CHEM 2141 | Organic Chemistry Laboratory I | 1 |
| TCCN: CHEM 2123 | | |
| PHYS 1315 | General Physics I | 3 |
| TCCN: PHYS 1301 | | |
| PHYS 1115 | General Physics I Laboratory | 1 |
| TCCN: PHYS 1101 | | |
| Total Hours | | 24 |

Course Requirements

| First Semester | Hours | Second Semester | Hours | Freshman |
|---|-------|---|-------|----------|
| BIO 1330 (Life & Physical Sciences Component Code 030) | 3 | BIO 1331 (Life & Physical Sciences Component Code 030) | 3 | |
| BIO 1130 | 1 | BIO 1131 | 1 | |
| CHEM 1141 | 1 | CHEM 1142 | 1 | |
| CHEM 1341 | 3 | CHEM 1342 | 3 | |

| | | |
|---|---|----|
| US 1100 | 1 ENG 1320 (Communication Component Code 010) | 3 |
| ENG 1310 (Communication Component Code 010) | 3 HIST 1310 (American History Component Code 060) | 3 |
| POSI 2310 (Government/ Political Science Component Code 070) | 3 COMM 1310 (Component Area Option Code 090/091) | 3 |
| 15 | | 17 |

| Sophomore | | | | | |
|---|-------|-----------------|-------|---|-------|
| First Semester | Hours | Second Semester | Hours | Summer | Hours |
| BIO 2450 | 4 | BIO 2410 | 4 | Summer I: | |
| CHEM 2141 | 1 | CHEM 2142 | 1 | ENG Literature (Component Area Option Code 090/094) | 3 |
| CHEM 2341 | 3 | CHEM 2342 | 3 | HIST 1320 (American History Component Code 060) | 3 |
| Mathematic Component Code 020 ² | 3 | Mathematic | 3 | Summer II: | |
| PHYS 1315 & PHYS 1115 | 4 | PHYS 1325 | 3 | ART 2313, DAN 2313, MU 2313, or TH 2313 (Creative Arts Component Code 050) | 3 |
| PHIL 1305 or 1320 (Language, Philosophy & Culture Component Code 040) | 3 | PHYS 1125 | 1 | POSI 2320 (Government Political Science Component Code 070) | 3 |
| 18 | | 15 | | 12 | |

| Junior | | | | | |
|---------------------|-------|------------------------------|-------|--|--|
| First Semester | Hours | Second Semester | Hours | | |
| BIO 2400 or 2411 | 4 | BIO Advanced Electives | 7 | | |

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| CI 3325 | 3 Social & Behavioral Sciences Component Code 080 | 3 |
| BIO 4416 | 4 ENG 3303 | 3 |
| CI 4332 | 3 | |
| 14 | | 13 |

| Senior | | | |
|----------------------------------|-------|-----------------|-------|
| First Semester | Hours | Second Semester | Hours |
| CI 4370 | 3 | EDST 4681 | 6 |
| BIO 4408 or 4305 ¹ | 3-4 | | |
| CI 4343 | 3 | | |
| RDG 3323 | 3 | | |
| BIO 4301 | 3 | | |
| 15 | | 6 | |

Total Hours: 125

- ¹ Neither BIO 4305 nor BIO 4408 count as advanced electives in any other degree program in Biology.
- ² Math requirements may be satisfied by taking MATH 2321 and MATH 2328, or MATH 2321 and MATH 2331, or MATH 2471 and MATH 2472, or MATH 2471 and MATH 2328.

BIO Advanced Electives

| Code | Title | Hours |
|----------|------------------------------------|-------|
| BIO 3308 | Global Ecology | |
| BIO 3406 | Economic Botany | |
| BIO 4410 | Field Biology of Plants | |
| BIO 4420 | Natural History of the Vertebrates | |
| BIO 4421 | Ornithology | |
| BIO 4422 | Mammalogy | |
| BIO 4425 | Biometry | |
| BIO 4434 | Herpetology | |
| BIO 4446 | Microbial Ecology | |
| BIO 4454 | Plant Ecology | |
| BIO 4465 | General Entomology | |