

BACHELOR OF SCIENCE IN BIOLOGY (7-12 LIFE SCIENCE CERTIFICATION)

The Department of Biology offers a degree in Biology which also includes the courses and requirements leading to completion of a Texas 7-12 Life Science Teaching Certificate. This Bachelor of Science degree leading to teacher certification requires a total of 123-134 semester credit hours. All students pursuing teacher certification must achieve an overall GPA of at least 2.75 prior to enrolling in professional education coursework. Students must earn a grade of C or better in all required mathematics, science (includes all prefixes) and education courses.

The requirements for Biology majors in mathematics, chemistry, and physics must also be met. Completion of teacher education requirements will automatically lead to a minor in education.

Total Semester Credit Hours (sch): 123-134
Major: 36 sch Required Minor: 26 sch
 Program Code: BIOLOGY.BS CIP Code: 26.0101

Admissions:

Please refer to the Admission section of this catalog regarding acceptance into TWU.

To obtain acceptance into the undergraduate Educator Preparation Program, you must have:

(All criteria required before taking EDUC 3003, EDUC 3482, EDUC 4113, EDUC 4243, and Clinical Student Teaching)

- Completion of EDUC 2003 (C or better)
- Cumulative GPA of 2.75
- Demonstrate basic skills in reading, written communication, and mathematics by meeting the requirements of the Texas Success Initiative;
- Testing Requirements (please note: all testing requirements are subject to change)
 - TASP/THEA Scores: Reading 260, Math 240, Writing 240; OR
 - Accuplacer Scores: Reading 80, Math 65, Writing 82/6; OR
 - ACT Scores: Verbal 19, Math 19, Composite 23; OR
 - SAT Scores:
 - Prior to March 5, 2016 - Verbal 500, Math 500, Composite 1070;
 - On/After March 5, 2016 – EBRW 480, Math 530

ACT and SAT scores cannot be more than five years old

- Successful completion of a pre-admission interview with assigned faculty advisor
- Minimum of 12 to 15 semester credit hours in the subject-specific content area for the certification sought
- Signed application for admission to the Educator Preparation Program
- Signed Commitment Contract acknowledging awareness and understanding of the Dispositions Policy and Educators’ Code of Ethics

- Submit a non-refundable Texas Education Agency Fee
- Acknowledgment and acceptance of admission to the Educator Preparation Program

Students must maintain the admission requirements to remain a student in the TWU Education Preparation Program.

Degree Requirements

Texas Core Curriculum

| Code | Title | SCHs |
|--|---|-----------|
| ENG 1013 | Composition I | 3 |
| ENG 1023 | Composition II | 3 |
| Mathematics | | 3 |
| Life & Physical Sciences | | 6 |
| Language, Philosophy, & Culture | | 3 |
| Creative Arts | | 3 |
| HIST 1013 | History of the United States, 1492-1865 | 3 |
| HIST 1023 | History of the United States, 1865 to the Present | 3 |
| GOV 2013 | U.S. National Government | 3 |
| GOV 2023 | Texas Government | 3 |
| Social & Behavioral Sciences | | 3 |
| CAO: Women's Studies | | 3 |
| CAO: First Year Seminar, Wellness or Mathematics | | 3 |
| Total SCHs | | 42 |

Courses Required for Major

| Code | Title | SCHs |
|-----------------------|--|-----------|
| BIOL 1113 | Principles of Biology I | 3 |
| BIOL 1111 | Principles of Biology I Laboratory | 1 |
| BIOL 1123 | Principles of Biology II | 3 |
| BIOL 1121 | Principles of Biology II Laboratory | 1 |
| BIOL 4681 | Biology Seminar | 1 |
| BACT 3111 & BACT 3113 | General Microbiology Laboratory and General Microbiology | 4 |
| ZOOL 4241 & ZOOL 4243 | Mammalian Physiology Laboratory and Mammalian Physiology | 4 |
| BOT 2111 & BOT 2113 | Plant Biology Laboratory and Plant Biology | 4 |
| BIOL 4811 & BIOL 4813 | Molecular and Cellular Biology: Gene Expression Laboratory and Molecular and Cellular Biology: Gene Expression | 4 |
| BIOL 4821 & BIOL 4823 | Molecular and Cellular Biology: Genetics and Inheritance Laboratory and Molecular and Cellular Biology: Genetics and Inheritance | 4 |
| BIOL 4223 & BIOL 4221 | Ecology and Ecology Laboratory (GP) | 4 |
| BIOL 4593 | Science in the Secondary Classroom | 3 |
| Total SCHs | | 36 |

Additional Required Courses

| | | | | | | | |
|--------------------------|--|----------------------------------|----|--------------------|--|-------------|-----|
| ZOOL 4241 & ZOOL 4243 | Mammalian Physiology Laboratory and Mammalian Physiology | | 4 | Fourth Year | | | |
| | | | | Fall | | TCCN | |
| | | | | BIOL 4593 | Science in the Secondary Classroom | | 3 |
| GOV 2023 | Texas Government | GOVT 2306 | 3 | BIOL 4681 | Biology Seminar | | 1 |
| | SCHs | | 15 | READ 3013 | Literacy and Learning across the Curriculum | | 3 |
| Third Year | | | | | | | |
| Fall | | TCCN | | EDSP 4203 | Learners with Exceptionalities | | 3 |
| BIOL 4811 & BIOL 4813 | Molecular and Cellular Biology: Gene Expression Laboratory and Molecular and Cellular Biology: Gene Expression | | 4 | HIST 1023 | History of the United States, 1865 to the Present | HIST 1302 | 3 |
| | | | | | Language, Philosophy & Culture Core | | 3 |
| PHYS 1131 & PHYS 1133 | Principles of Physics I and Principles of Physics I | (PHYS 1101) and (PHYS 1301) | 4 | | Social/Behavioral Science Core | | 3 |
| | | | | | SCHs | | 19 |
| HIST 1013 | History of the United States, 1492-1865 | HIST 1301 | 3 | Spring | | TCCN | |
| EDUC 3003 | Learning Theory and Development | | 3 | EDUC 4346 | Student Teaching: Life Science 8-12 | | 6 |
| EDUC 3482 | Teaching Diverse Learners Through Technology Integration | | 2 | | SCHs | | 6 |
| | SCHs | | 16 | | Total SCHs: | | 123 |
| Spring | | TCCN | | | | | |
| BIOL 4821 & BIOL 4823 | Molecular and Cellular Biology: Genetics and Inheritance Laboratory and Molecular and Cellular Biology: Genetics and Inheritance | | 4 | | | | |
| PHYS 1141 & PHYS 1143 | Principles of Physics II and Principles of Physics II | (PHYS 1102) and (PHYS 1302) | 4 | | | | |
| EDUC 4113 | Design and Implementation of Instruction and Assessment | | 3 | | | | |
| EDUC 4243 | Classroom Environment and Management | | 3 | | | | |
| Creative Arts Core | | | 3 | | | | |
| | SCHs | | 17 | | | | |

(GP) courses satisfy global perspectives graduation requirement.