

Program: **Science Education**  
 Major: **Science Education - General Science**  
 Degree: **Bachelor of Science in Education (B.S.Ed.)**

Dept: **Biology**  
 College: **Mathematics and Science**  
 Major Code: **6042**

**University Core (Total Listed 42-44)**

For a full list of courses see [University Core](#).

• Courses from the major may apply to the areas marked in the University Core.

- **Written and Oral Communication**..... 9
- Quantitative Reasoning/Scientific Method** ..... 10-11
- Math..... 3
- Life Science ..... 4
- Physical Science ..... 3-4
- Critical Inquiry and Aesthetic Analysis**..... 6
- Aesthetic Analysis ..... 3
- Critical Inquiry..... 3

- American Historical and Political Analysis** ..... 6
- American National Government ..... 3
- American History ..... 3
- Cultural and Language Analysis** ..... 3-4
- Second Language ..... 4
- OR
- Cultural Analysis..... 3
- Social and Behavioral Analysis**..... 3
- Life Skills** ..... 5
- Required Health Course..... 2
- Elective Life Skills..... 3

**Support Courses**

**Support Courses.....9-15**

- MCOM 1113 Fundamentals of Speech
- ENG 1113 English Composition
- ENG 1213 English Composition and Research

Students majoring in the General Science Education program are encouraged to complete the following courses in high school.

- Two years of high school Algebra and one year of Trigonometry **OR**
- MATH 1453 Applied Algebra **OR**
  - MATH 1513 College Algebra **AND**
  - MATH 1593 Plane Trigonometry

**Major Requirements**

**Science Education - General Science.....63**

**Science Education Core ..... 33**

- Biology ..... 8
- Required courses:
- BIO 1204 Biology for Majors: Principles
- BIO 1224 Biology for Majors: Diversity
- Chemistry..... 10
- Required courses:
- CHEM 1103 General Chemistry I **AND**
- CHEM 1112 General Chemistry I Recitation/Lab
- CHEM 1223 General Chemistry II **AND**
- CHEM 1232 General Chemistry II Recitation/Lab
- Physics ..... 8
- Required courses:
- PHY 1114 General Physics I and Lab **OR**
- PHY 2014 Physics for Science and Engineering I and Lab
- PHY 1214 General Physics II and Lab **OR**
- PHY 2114 Physics for Science and Engineering II and Lab
- Mathematics ..... 3
- Required course:
- STAT 2103 Introduction to Statistics for Sciences

**Minimum Required Hours**

Earth Science ..... 4

Required course:  
 PHY 3014 Earth Science

**Science Education - General Science..... 30**

- Required courses:
- BIO 2203 Cell Biology
  - BIO 2211 Cell Biology Laboratory
  - BIO 3054 Microbiology for Majors and Lab
  - BIO 3303 Genetics
  - BIO 3543 General Ecology
  - BIO 3703 Evolution
  - CHEM 2104 Quantitative Analysis and Lab
  - CHEM 3303 Organic Chemistry I **OR**
  - CHEM 3013 Organic Chemistry for Life Sciences
  - CHEM 3312 Organic Chemistry I Lab **OR**
  - CHEM 3022 Organic Chemistry for Life Sciences Laboratory
  - PHY 1304 Descriptive Astronomy

**Professional Education .....31**

- PTE 1010 Introduction to Teacher Education
- PTE 3023 Foundations of American Education/Clinical Exp
- PTE 3153 Adolescent Psychology
- SPED 4123 Teaching Individuals with Disabilities
- ^BIO 4812 Teaching and Learning in Science Classrooms
- ^BIO 4853 General Methods of Teaching Science and Lab
- ^PTE 4172 Educational Assessment
- ^PTE 4533 Contemporary Learning Sciences
- ^#PTE 4811 Contemporary Issues
- ^#PTE 4838 Internship/Student Teaching Secondary
- ^#PTE 4853 Classroom Management & Instruction

^ Admission to Teacher Education required  
 #To be taken the same semester

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**Minimum  
Required Hours**

- CONTINUED FROM PREVIOUS PAGE -

**Minimum Hours required ..... 126\***

\*Total hours required for this major may exceed the minimum 124 credit hour institutional requirement and will vary according to course selection. It is recommended students complete high school algebra II, trigonometry, and two years of a second language in high school.

**Minimum Graduation Requirements**

1. Overall GPA in all college course work ..... 2.50
2. Average in course work at UCO ..... 2.00
3. Courses in English Composition, Fundamentals of Speech, Professional Education, and area of specialization (major)..... "C"
4. Proficiency in foreign language ..... Novice 4 level