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

Minimum Required Hours
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

Support Courses

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

MCOM 1113 Fundamentals of Speech
EN 1113 English Composition
EN 1213 English Composition and Research

Students majoring in the Chemistry 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 - Chemistry ......................................................... 65

Science Education Core ......................................................................... 37

Biology ........................................................................................................ 9

Required courses:
BIO 1204 Biology for Majors: Principles
BIO 1225 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

Earth Science ............................................................................................. 4

PHY 3014 Earth Science

Computer Science ....................................................................................... 3

CMSC 1513 Beginning Programming

Mathematics ................................................................................................. 3

STAT 2103 Introduction to Statistics for Sciences

Science Education - Chemistry ................................................................ 28

Required Courses ....................................................................................... 18

CHEM 2104 Quantitative Analysis and Lab
CHEM 3303 Organic Chemistry I
CHEM 3312 Organic Chemistry I Lab
CHEM 3323 Organic Chemistry II
CHEM 3203 Introduction to Physical Chemistry
CHEM 3403 Biochemistry I

Elective Courses ........................................................................................ 10

Any 3/4000 level Biology, Chemistry, Physics or Math courses

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 & 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

Minimum Hours required ......................................................... 128*

*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

**For other regulations pertaining to graduation, see [Academic Degree Requirements](#).**