Program: Science Education  
Major: Science Education - Chemistry  
Degree: Bachelor of Science in Education (B.S.Ed.)  
Dept: Chemistry  
College: Mathematics and Science  
Major Code: 6041

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

- **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**

<table>
<thead>
<tr>
<th>Minimum Required Hours</th>
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<tbody>
<tr>
<td>Support Courses .................</td>
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</table>

- **MCOM 1113** Fundamentals of Speech  
- **ENG 1113** English Composition  
- **ENG 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  
  - **MATH 1453** Applied Algebra  
  - **MATH 1513** College Algebra  
  - **MATH 1593** Plane Trigonometry

**Major Requirements**

**Science Education - Chemistry** ...................................................... **65**

**Science Education Core** ................................................................... **36**

- **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  
    - **CHEM 1112** General Chemistry I Recitation/Lab  
    - **CHEM 1223** General Chemistry II  
    - **CHEM 1232** General Chemistry II Recitation/Lab  

- **Physics** .................................................................................................... **8**  
  - **Required courses:**  
    - **PHY 1114** General Physics I and Lab  
    - **PHY 2014** Physics for Science and Engineering I and Lab  
    - **PHY 1214** General Physics II and Lab  
    - **PHY 2114** Physics for Science and Engineering II and Lab

- **Earth Science** ........................................................................................... 4  
  - **PHY 3014** Earth Science  

- **Computer Science** .................................................................................. 3  
  - **CMSC 1513** Beginning Programming

**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

**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.

**Elective Courses** ........................................................................................ **11**

- 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  
  - **PTE 4812** Teaching and Learning in Science Classrooms  
  - **PTE 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

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- CONTINUED ON NEXT PAGE -
Program:  Science Education - continued
Major:    Science Education - Chemistry
Degree:   Bachelor of Science in Education (B.S.Ed.)

Dept:        Chemistry
College:    Mathematics and Science
Major Code:  6041

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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