Program: Chemistry
Major: Chemistry - ACS Certificate
Degree: Bachelor of Science (B.S.)

Dept: Chemistry
College: Mathematics and Science
Major Code: 6061

**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

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**Support Courses**

**Support Courses** ................................................................. 0-6

Required Courses:

*MATH 1533 Precalculus-Algebra OR
MATH 1513 College Algebra OR Placement Score AND
*MATH 1593 Plane Trigonometry OR Placement Score

*A grade of ‘C’ or better is required for either MATH 1513 or MATH 1533 and MATH 1593 to take MATH 2313.

**Major Requirements**

**Chemistry - ACS Certificate** ................................................. 76

**Common Core** .................................................................... 47

**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
- CHEM 2104 Quantitative Analysis and Lab
- CHEM 2621 Professionalism in Chemistry I
- CHEM 3303 Organic Chemistry I
- CHEM 3312 Organic Chemistry I Lab
- CHEM 3323 Organic Chemistry II
- CHEM 3332 Organic Chemistry II Lab
- CHEM 3454 Fundamentals of Instrumental Analysis and Lab
- CHEM 3621 Professionalism in Chemistry II
- MATH 2313 Calculus 1
- MATH 2323 Calculus 2
- MATH 2333 Calculus 3
- PHY 2014 Physics for Science and Engineering I and Lab
- PHY 2114 Physics for Science and Engineering II and Lab

**Advanced Chemistry ACS approved** .................................... 29

**Required courses:**

- CHEM 3403 Biochemistry I
- CHEM 3503 Physical Chemistry I
- CHEM 3513 Physical Chemistry II
- CHEM 3602 Experimental Physical Chemistry

**Minimum Grade Requirements**

1. Average in (a) all college course work, and (b) course work at UCO ................................................. 2.25
2. A minimum grade of “C” must be earned in all courses in the major to count toward meeting degree requirements.

**For other regulations pertaining to graduation, see Academic Degree Requirements.**

**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

**Electives to bring total to** ......................................................... 124

- CHEM 4502 Directed Research and Lab (taken twice)
- CHEM 4603 Advanced Organic Chemistry
- CHEM 4654 Inorganic Chemistry and Lab

The following are highly recommended:

- CHEM 4454 Advanced Instrumental Analysis and Lab
- ENG 4023 Technical Writing
- MATH 2343 Calculus 4
- PHY 3103 Modern Physics