

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)

Specific courses within the University Core are listed on pages 95-96.

• 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

Minimum  
Required Hours

Minimum  
Required Hours

### 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: ..... 22

CHEM 3403 Biochemistry I

CHEM 3503 Physical Chemistry I

CHEM 3513 Physical Chemistry II

CHEM 3602 Experimental Physical Chemistry

CHEM 4502 Directed Research and Lab (taken twice)

CHEM 4603 Advanced Organic Chemistry

CHEM 4654 Inorganic Chemistry and Lab

Elective Chemistry (3000/4000 level) ..... 7  
 (CHEM 3203 will not apply.)

Electives to bring total to ..... 124

The following are highly recommended:

CHEM 4454 Advanced Instrumental Analysis and Lab

ENG 4023 Technical Writing

MATH 2343 Calculus 4

PHY 3103 Modern Physics

### 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 pages 66-67 of the 2019-2020 catalog.