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

Specific courses within the University Core are listed on pages 96-97.

- 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

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

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

Required Courses:
- MATH 1533 Algebra for STEM OR Placement Score AND
- MATH 1593 Plane Trigonometry OR Placement Score

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

**Major Requirements** ................................................................. 68

**Chemistry** ....................................................................................... 68

**Common Core** .................................................................................. 45

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 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
- 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** ........................................................................ 23

Required courses:
- CHEM 3503 Physical Chemistry I
- CHEM 3513 Physical Chemistry II
- CHEM 3602 Experimental Physical Chemistry
- CHEM 4454 Advanced Instrumental Analysis and Lab
- CHEM 4502 Directed Research and Lab

Chemistry Electives ................................................................. 9

(3000/4000 level; CHEM 3203 will not apply)

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

The following are highly recommended:

- CHEM 3403 Biochemistry I
- 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 67-68 of the 2017-2018 catalog.