

## Bachelor of Science in Chemistry

This degree is designed for students planning for graduate study or positions in the chemical industry.

### **Degree Requirements:**

Candidates for the Bachelor of Science in Chemistry must meet the following requirements.

- 1. Hours Required for the Degree:** Completion of a minimum of 132 total semester hours; 42 must be advanced.
- 2. General University Requirements:** See “General Degree Requirements” in the Academics section of this catalog.
- 3. College of Arts and Sciences Core Curriculum:** Minimum 61 hours (includes requirements of University Core Curriculum). See “Arts and Sciences Core Curriculum” in the College of Arts and Sciences section of this catalog for specific core requirements and list of approved courses. See specific degree plan for exact hours.
- 4. Major Requirements:** CHEM 1410/1430 or 1412/1430 or 1413/1430; 1420/1440 or 1422/1440 or 1423/1440; 2370/3210, 2380/3220, 3450, 3510/3230, 3520/3240, 4610/4620 and 4630, plus 3 additional hours at the 4000 level or above (or BIOC 3620).
- 5. Minor Requirements:** A minor of at least 18 hours in mathematics, computer science, physics, biology or geology (if taken as a laboratory science), of which 6 must be advanced.
- 6. Electives:** See four year plan.
- 7. Other Course Requirements:** MATH 1710, 1720, 2700 and 2730; PHYS 1710/1730 and 2220/2240.
- 8. Other Requirements:** GPA of 2.5 on all advanced courses attempted in the division of science.

DRED (Traffic Safety) courses may not be used to satisfy any portion of a degree in the College of Arts and Sciences.

## BS in Chemistry

*Following is **one** suggested four-year degree plan. Students are encouraged to see their adviser each semester for help with program decisions and enrollment.*

### BS in Chemistry

#### FRESHMAN YEAR

FALL	HOURS
CHEM 1410, General Chemistry or CHEM 1412, General Chemistry for the Classic Learning Core or CHEM 1413, Honors General Chemistry <sup>10</sup>	3
CHEM 1430, Laboratory Sequence for General Chemistry	1
ENGL 1310, College Writing I	3
HIST 2610, United States History to 1865 <sup>12</sup>	3
MATH 1650, Pre-Calculus <sup>4</sup>	5
Wellness <sup>11</sup>	<u>2-3</u>
Total	17-18

#### FRESHMAN YEAR

SPRING	HOURS
CHEM 1420, General Chemistry or CHEM 1422, General Chemistry for the Classic Learning Core or CHEM 1423, Honors General Chemistry <sup>10</sup>	3
CHEM 1440, Laboratory Sequence for General Chemistry	1
ECON 1110, Principles of Macroeconomics	3
ENGL 1320, College Writing II <sup>6</sup>	3
HIST 2620, United States History Since 1865 <sup>12</sup>	3
CSCI <sup>1</sup>	<u>3</u>
Total	16

#### SOPHOMORE YEAR

FALL	HOURS
CHEM 2370, Organic Chemistry	3
CHEM 3210, Organic Chemistry Laboratory <sup>20</sup>	1
ENGL 2210, World Literature I	3
LANG 2040, Foreign Language (intermediate) <sup>3</sup>	3
MATH 1710, Calculus I	4
Understanding of Ideas and Values <sup>8</sup>	<u>3</u>
Total	17

#### SOPHOMORE YEAR

SPRING	HOURS
CHEM 2380, Organic Chemistry	3
CHEM 3220, Organic Chemistry Laboratory <sup>20</sup>	1
ENGL 2220, World Literature II	3
LANG 2050, Foreign Language (intermediate)	3
MATH 1720, Calculus II	3
Oral Communication <sup>2</sup>	<u>3</u>
Total	16

#### JUNIOR YEAR

FALL	HOURS
CHEM 3230, Physical Chemistry Laboratory Sequence	1
CHEM 3450, Quantitative Analysis	4
CHEM 3510, Physical Chemistry	3
MATH 2730, Multivariable Calculus	3
PHYS 1710, Mechanics	3
PHYS 1730, Laboratory in Mechanics	<u>1</u>
Total	15

#### JUNIOR YEAR

SPRING	HOURS
CHEM 3240, Physical Chemistry Laboratory Sequence	1
CHEM 3520, Physical Chemistry	3
PSCI 1050, American Government	3
Visual and Performing Arts <sup>7</sup>	3
Minor <sup>15</sup>	<u>6</u>
Total	16

#### SENIOR YEAR

FALL	HOURS
CHEM 4610, Advanced Inorganic Chemistry	3
PHYS 2220, Electricity and Magnetism	3
PHYS 2240, Laboratory in Wave Motion, Electricity, Magnetism and Optics	1
PSCI 1040, American Government	3
Minor/Elective <sup>15</sup>	3
Understanding of Ideas and Values <sup>8</sup>	<u>3</u>
Total	16

#### SENIOR YEAR

SPRING	HOURS
CHEM 4620, Advanced Inorganic Chemistry Laboratory	1
CHEM 4630, Instrumental Analysis	4
MATH 3410, Differential Equations I or MATH 2700, Linear Algebra and Vector Geometry	3
Minor/Elective <sup>16</sup>	3
Minor/Elective <sup>16</sup>	3
Minor/Elective <sup>16</sup>	3
Minor/Elective <sup>16</sup>	<u>2</u>
Total	19

*Actual degree plans may vary depending on availability of courses in a given semester.*

*Some courses may require prerequisites not listed.*

*See Arts and Sciences folding key (#2) for footnotes.*

### Supplemental Information for BS in Chemistry

Other general requirements for the Bachelor of Science as specified by the College of Arts and Sciences and the "University Core Curriculum Requirements" in the Academics section, with the exception that 8 hours of physics may be substituted for the biology/geology portion of the laboratory science requirement.