# Bachelor of Science in Chemistry
## 2018-2020 Catalog

## Overall Requirements to Graduate
- 126+ semester hours
- Completion of core curriculum
- Completion of a major
- 36 upper division credit hours
- GPA above 2.0
- Major GPA above 2.0
- Minor/Program complete (optional)

## Core Curriculum (46 hours)

### Theology (9 credit hours)
- Must take in order. (Pre-req: Phil 1311 or 1315/3315)
  - Theo 1301/3301 Intro to Sacred Scriptures
  - Theo 2301/3311 Teachings of the Catholic Church
  - Theo 3349 Christ and the Moral Life (Phil 2314 or 2316/3316)

### Philosophy (9 credit hours)
- Choose one sequence:
  - Systematic Sequence (must take in order)
    - PHIL 1311 Philosophy of the Human Person
    - PHIL 2314 Ethics
    - PHIL 3313 Metaphysics
  - Historical Sequence (must take in order)
    - PHIL 1315/3315 Ancient Philosophy
    - PHIL 2316/3316 Medieval Philosophy
    - PHIL 3317 – Modern Philosophy

### Synthesis Course (3 credit Hours)
- Choose one synthesis course from the Synthesis Course List.

### English (9 credit hours)*
- Must take in order.
  - ENGL 1341 The Classical Tradition: Literature & Composition I
  - ENGL 1342 The Middle Ages: Literature & Composition II
  - ENGL 2312 The Modern World: Literature & Composition III

### History (6 credit hours)
- Choose one pair of courses:
  - World History
    - HIST 1335 World Community I
    - HIST 1336 World Community II
  - U.S. History
    - HIST 2333 U.S. History to 1877
    - HIST 2334 U.S. History since 1877

### Social and Behavioral Sciences (6 credit hours)
- Choose one option:
  - Social and Behavioral Sciences Option
    - Choose two courses from the Social and Behavioral Sciences Core course list.
  - Social and Behavioral Sciences + Oral Communication Option
    - Choose one course from the Social & Behavioral Sciences Core course list.
    - Choose one course from the Communication Core Course list.

### Natural Sciences (8-10 credit hours)
- Choose one option:
  - Natural Sciences Option (8 credit hours)
    - Choose two lecture/laboratory courses from the Natural Sciences Core course list.
  - Natural Sciences + Modern and Classical Language Option (10 credit hours)
    - Choose one lecture/laboratory course from the Natural Sciences Core course list.
    - Choose two sequential courses in a language. Courses must be completed in order

### Mathematics (3 credit hours)
- Choose one course from the Mathematics Core Course list.

### Fine Arts (3 credit hours)
- Choose one course from the Fine Arts Core Course list.

### Freshman Symposium (1 credit hour)
- Required for all incoming freshmen.
  - UNIV 1111 Freshman Symposium

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**Credit Hour Breakdown**

<table>
<thead>
<tr>
<th>Hours completed</th>
<th>Core hours in progress</th>
<th>Major hours needed</th>
<th>Minor hours needed</th>
<th>Other hours needed</th>
<th>Elective hours needed</th>
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**TOTAL HOURS (126+)**

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*Students with transfer credit:
- 3 transfer credits: Take 1341/1342 (left)
- 6 transfer credits: Take ENGL 3312 (below)

ENGL 3312 Perspectives in World Lit.

Last updated on June 19, 2018

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## 2018-2020 Catalog

## Major Requirements (63 credit hours)

### Chemistry Required Courses (38 credit hours)

<table>
<thead>
<tr>
<th>Course</th>
<th>Completed</th>
<th>Needed</th>
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<tbody>
<tr>
<td>CHEM 1341/1141 – General Chemistry I and laboratory</td>
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<tr>
<td>CHEM 1342/1142 – General Chemistry II and laboratory (CHEM 1341/1141)</td>
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<tr>
<td>CHEM 2343/2143 – Organic Chemistry I and laboratory (CHEM 1342/1142)</td>
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<tr>
<td>CHEM 3333/3133 – Organic Chemistry II and laboratory (CHEM 2343/2143)</td>
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<tr>
<td>CHEM 3334/3134 – Biochemistry and laboratory (junior standing; CHEM 2343/2143)</td>
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<tr>
<td>CHEM 3343/3143 – Analytical Chemistry and laboratory (CHEM 1342/1142)</td>
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<tr>
<td>CHEM 4331/4131 – Advanced Organic Chemistry and laboratory (CHEM 3333/3133)</td>
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<tr>
<td>CHEM 4332/4132 – Inorganic Chemistry and laboratory (CHEM 3333/3133)</td>
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<tr>
<td>CHEM 4362/4162 – Thermodynamics and Kinetics and laboratory (CHEM 1342/1142; MATH 1431/1432/2343; PHYS 1331/1332 or PHYS 2333/2334)</td>
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<tr>
<td>CHEM 4112 – Scientific Communication (junior or senior standing)</td>
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<td>CHEM 4150 – Laboratory Research Methods</td>
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### Additional Chemistry (6 credit hours) Choose two from the following.

<table>
<thead>
<tr>
<th>Course</th>
<th>Completed</th>
<th>Needed</th>
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</thead>
<tbody>
<tr>
<td>CHEM 4344 – Advanced Analytical Techniques (CHEM 3343/3143)</td>
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<tr>
<td>CHEM 4354 – Environmental Chemistry (CHEM 3343/3143)</td>
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<tr>
<td>CHEM 4361 – Quantum Chemistry (1342/1142; MATH 1431/1432/2343; PHYS 1331/1332 or PHYS 2333/2334)</td>
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</tbody>
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### Mathematics (11 credit hours) Must take in order.

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<thead>
<tr>
<th>Course</th>
<th>Completed</th>
<th>Needed</th>
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<tbody>
<tr>
<td>MATH 1431 – Calculus I</td>
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<tr>
<td>MATH 1432 – Calculus II</td>
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<td>MATH 2343 – Differential Equations I</td>
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### Physics (8 credit hours) Choose one pair of courses.

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<thead>
<tr>
<th>Course</th>
<th>Completed</th>
<th>Needed</th>
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<tbody>
<tr>
<td>PHYS 1331/1111 – General Physics I w/lab</td>
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<tr>
<td>PHYS 1332/1112 – General Physics II w/lab</td>
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<tr>
<td>PHYS 2333/2111 – University Physics I w/lab</td>
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<tr>
<td>PHYS 2334/2112 – University Physics II w/lab</td>
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## Electives

### Electives to reach the 126 hour minimum to graduate (17 hours)

*This major contains 32 upper-division (3000 or 4000 level) credit hours. 36 upper-division credit hours are required for graduation. Consider additional upper-division options in the core or electives.*

## Totals

### Total undergraduate hours (126 minimum):

<table>
<thead>
<tr>
<th></th>
<th>Completed</th>
<th>Needed</th>
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<tbody>
<tr>
<td>MINIMUM TOTAL:</td>
<td>126+</td>
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