Bachelor of Science in Biochemistry
2019-2020 Catalog

Overall Requirements to Graduate
- 120+ 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:
- PHIL 1311 Philosophy of the Human Person
- PHIL 2314 Ethics
- PHIL 3313 Metaphysics

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:
- HIST 1335 World Community I
- HIST 1336 World Community II
- 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

Credit Hour Breakdown

<table>
<thead>
<tr>
<th>Hours completed</th>
<th>Core hours in progress</th>
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</thead>
<tbody>
<tr>
<td>Minor hours needed</td>
<td>(Other hours needed)</td>
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<tr>
<td>TOTAL HOURS (120+)</td>
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Last updated on August 28, 2019

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## Major Requirements (73-75 credit hours)

### Chemistry Foundation Courses (40-41 credit hours)

- **CHEM 1341/1141** – General Chemistry I and laboratory (CHEM 1341/1141 with a C or better)
- **CHEM 1342/1142** – General Chemistry II and laboratory (CHEM 1342/1142 with a C or better)
- **CHEM 2343/2143** – Organic Chemistry I and laboratory (CHEM 2343/2143)
- **CHEM 3333/3133** – Organic Chemistry II and laboratory (CHEM 3333/3133 with a C or better; CHEM 2343/2143)
- **CHEM 3343/3143** – Analytical Chemistry and laboratory (CHEM 1342/1142)
- **CHEM 4332/4132** – Inorganic Chemistry and laboratory (CHEM 3333/3133)
- **CHEM 4362/4162** – Thermodynamics and Reaction Kinetics and laboratory (CHEM 3333/3133; MATH 1432; PHYS 1331/1332 or PHYS 2333/2112)
- **CHEM 4112** – Scientific Communication (junior or senior standing)
- **CHEM 4150** – Laboratory Research Methods
- **CHEM 4334** – Advanced Biochemistry (CHEM/BIOL 3334)

**Choose one of the following:**
- **CHEM 4344** – Advanced Analytical Techniques (CHEM 3343/3143)
- **CHEM 4331/4131** – Advanced Organic Chemistry and laboratory (CHEM 3333/3133)

### Biology (17-18 credit hours) Must take in order.

- **BIOL 1351/1151** – Introduction to Population Biology and Evolution w/ lab
- **BIOL 1352/1152** – Introduction to Cell and Molecular Biology w/ lab
- **BIOL 3321** – Genetics (CHEM 1341/1141/1342/1142)
- **BIOL 3351** – Molecular Biology (CHEM 2343)
- **BIOL 3000/4000** – Choose an additional 3-4 credit hours of upper division biology course

### Mathematics (8 credit hours) Must take in order.

- **MATH 1431** – Calculus I (MATH 1331 with a C or better)
- **MATH 1432** – Calculus II (MATH 1431 with a C or better)

### Physics (8 credit hours) Choose one pair of courses.

- **PHYS 1331/1111** – General Physics I w/ lab
- **PHYS 1332/1112** – General Physics II w/ lab
- **PHYS 2333/2111** – University Physics I w/ lab (Math 1431)
- **PHYS 2334/2112** – University Physics II w/lab

## Electives

**Electives to reach the 120 hour minimum to graduate (0-1 hours)**

## Totals

**Total undergraduate hours (120 minimum):**

**MINIMUM TOTAL: 120+**