# Bachelor of Science in Computer Science

## 2020-2021 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 (54-56 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**

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<thead>
<tr>
<th>Credit Hour Breakdown</th>
<th>Complete</th>
<th>Needed</th>
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<tbody>
<tr>
<td>Hours completed</td>
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<tr>
<td>Hours in progress</td>
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<tr>
<td>Core hours needed</td>
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<td>Major hours needed</td>
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<td>(Minor hours needed)</td>
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<td>(Other hours needed)</td>
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<td>Elective hours needed</td>
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<td><strong>TOTAL HOURS (120+)</strong></td>
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Last updated on April 2020

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#### Major Requirements (57 credit hours)

<table>
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<tr>
<th>Completed</th>
<th>Needed</th>
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**Computer Science (32 credit hours)**

- COMSC 1450 – Introduction to Programming and Computer Science
- COMSC 1451 – Object Oriented Programming (pre-req COMSC 1450)
- COMSC 2351 – Data Structures (pre-req COMSC 1451)
- COMSC 3365 – Computer Organization and Programming Languages (pre-req COMSC 1451)
- COMSC 3375 – Database Systems (pre-req COMSC 1451)
- COMSC 3385 – Computer Architecture (pre-req COMSC 1451)
- COMSC 4320 – Operating Systems (pre-req COMSC 3385)
- COMSC 4340 – Computer Networks (pre-req COMSC 1451)
- COMSC 4345 – Foundations of Data Science (pre-req COMSC 3375)
- COMSC 4350 – System Development Project [Capstone] (pre-req Senior Standing)

**Mathematics (25 credit hours)**

- MATH 1431 – Calculus I (MATH 1331 with a C or better)
- MATH 1432 – Calculus II (MATH 1431 with a grade of C or better)
- MATH 2431 – Calculus III (MATH 1432 with a grade of C or better)
- MATH 3334 – Linear Algebra I (MATH 1432)
- MATH 3335 – A First Course in Probability (MATH 1432)
- MATH 3360 – Discrete Mathematics (MATH 1431)
- MATH 3450 – Biostatistics I (pre-req six credit hours in natural science or mathematics)

**Electives**

**Electives to reach the 120 hour minimum to graduate (7-9 credit hours)**

- One additional course completes a Mathematics minor: (optional)
  - MATH 2343 – Differential Equations

**Totals**

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

**MINIMUM TOTAL: 120+**