**Computer Science Undergraduate Degree Options**

### Bachelor of Arts

**General Education Requirements**
- ENGL 101 & 102, ENGL 107 & 108, or ENGL 109H
- First Year Composition
- Fourth-Semester Skill Level in Second Language
- Two Tier 1 Traditions & Cultures
- Two Tier 1 Individuals & Societies
- Tier 2 Arts
- Tier 2 Humanities
- Tier 2 Individuals & Societies
- Diversity Emphasis (Only required as a separate class if it’s not double dipped with another class)
- Two Tier 1 Natural Sciences
- Tier 2 Natural Sciences
- MATH 112 College Algebra

**Computer Science Courses**
- CSC 127A Intro to Computer Science I
- CSC 127B Intro to Computer Science II
- CSC 245/MATH 243/MATH 323 Discrete Structures
- CSC 352 Systems Programming and UNIX
- CSC 252 Computer Organization
- CSC 335 Object-Oriented Programming
- CSC 345 Analysis of Discrete Structures

### Bachelor of Science

**General Education Requirements**
- ENGL 101 & 102, ENGL 107 & 108, or ENGL 109H
- First Year Composition
- Second-Semester Skill Level in Second Language
- Two Tier 1 Traditions & Cultures
- Two Tier 1 Individuals & Societies
- Tier 2 Arts
- Tier 2 Humanities
- Tier 2 Individuals & Societies
- Diversity Emphasis (Only required as a separate class if it’s not double dipped with another class)
- Two Supporting Sciences
- MATH 122A&B or 125 Calculus I
- MATH 129 Calculus II

**Computer Science Courses**
- CSC 127A Intro to Computer Science I
- CSC 127B Intro to Computer Science II
- CSC 245/MATH 243/MATH 323 Discrete Structures
- CSC 352 Systems Programming and UNIX
- CSC 252 Computer Organization
- CSC 335 Object-Oriented Programming
- CSC 345 Analysis of Discrete Structures
- Paradigms Elective (CSC 372 Comparative Programming, CSC 422 Parallel/Distributed Programming, or CSC 460 Database Design)
- Theory and Writing Elective (CSC 437 Geometric Algorithms, CSC 445 Algorithms, or CSC 473 Automata)
- Systems Elective (CSC 452 Operating Systems or CSC 453 Compilers/System Software)
- CSC 400-489 Elective

*A minor is required for the Bachelor of Arts in Computer Science degree.*
What are the differences between a BA and BS in Computer Science?
November 7, 2014

The BA and BS in Computer Science differ in terms of course requirements and degree opportunities, but they do not need to differ in terms of future opportunities.

Course Requirements
The BA and BS differ in terms of course requirements in some obvious and some subtle ways:

<table>
<thead>
<tr>
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<th>BA</th>
<th>BS</th>
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<tbody>
<tr>
<td><strong>Math Requirements</strong></td>
<td>College Algebra</td>
<td>Calculus I</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Calculus II</td>
</tr>
<tr>
<td><strong>Foreign Language</strong></td>
<td>4th semester proficiency</td>
<td>2nd semester proficiency</td>
</tr>
<tr>
<td><strong>NATS Gen Ed</strong></td>
<td>2 Tier 1 NATS</td>
<td>N/A</td>
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<tr>
<td></td>
<td>1 Tier 2 NATS</td>
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<tr>
<td><strong>Lab Sciences</strong></td>
<td>N/A</td>
<td>2 courses</td>
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<tr>
<td><strong>Minor</strong></td>
<td>required</td>
<td>N/A</td>
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<tr>
<td><strong>400-level CS courses</strong></td>
<td>2 (minimum)</td>
<td>5 (minimum)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3 in core areas</td>
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Advantages
- Many students wish to double major. This is only possible for the same degree. For instance, if you wish to double major with English, you must choose the BA in Computer Science because English only offers a BA. Otherwise, you would be getting a “double degree” (BA and BS), which requires many more courses than a double major.

Future Opportunities
Many students worry that a BA may be less attractive than a BS to future employers or graduate schools because of the reduced minimum Computer Science requirements of the BA. While it is true that a student taking the minimum BA cohort of CS courses would likely be less well-prepared than a BS student, that’s not the fault of the BA. All students---BA and BS candidates---should choose their courses and the depth of their pursuit of Computer Science courses with the future in mind. And, of course, some employers or graduate schools may greatly value a BA student’s language proficiency and chosen minor course of study.