# Undergraduate Degree Options in Computer Science

(2016-2017 catalog)

## Bachelor of Arts

### General Education & Supporting Coursework

<table>
<thead>
<tr>
<th>Course</th>
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</thead>
<tbody>
<tr>
<td>ENGL 101&amp;102, ENGL 107&amp;108, or ENGL 109H</td>
</tr>
<tr>
<td>First Year Composition</td>
</tr>
<tr>
<td>Fourth-Semester Proficiency in Second Language</td>
</tr>
<tr>
<td>Two Tier I Traditions &amp; Cultures</td>
</tr>
<tr>
<td>Two Tier I Individuals &amp; Societies</td>
</tr>
<tr>
<td>Tier II Arts</td>
</tr>
<tr>
<td>Tier II Humanities</td>
</tr>
<tr>
<td>Tier II Individuals &amp; Societies</td>
</tr>
<tr>
<td>Diversity Emphasis</td>
</tr>
<tr>
<td>Two Tier I Natural Sciences</td>
</tr>
<tr>
<td>Tier II Natural Science</td>
</tr>
<tr>
<td>MATH 112 College Algebra</td>
</tr>
</tbody>
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### Computer Science Coursework

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<thead>
<tr>
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<tbody>
<tr>
<td>CSC 110 Intro to Computer Programming I</td>
</tr>
<tr>
<td>CSC 120 Intro to Computer Programming II</td>
</tr>
<tr>
<td>CSC 245 Discrete Structures</td>
</tr>
<tr>
<td>CSC 210 Software Development</td>
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<tr>
<td>CSC 252 Computer Organization</td>
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<tr>
<td>CSC 335 Object-Oriented Programming</td>
</tr>
<tr>
<td>CSC 345 Analysis of Discrete Structures</td>
</tr>
<tr>
<td>CSC 352 Systems Programming &amp; UNIX</td>
</tr>
<tr>
<td>CSC 400-489 Elective</td>
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*A minor is required for the BA degree.*

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<td>Second-Semester Proficiency in Second Language</td>
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<td>Tier II Individuals &amp; Societies</td>
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<tr>
<td>Diversity Emphasis</td>
</tr>
<tr>
<td>Two Supporting Sciences</td>
</tr>
<tr>
<td>MATH 122A&amp;B or 125 Calculus I</td>
</tr>
<tr>
<td>MATH 129 Calculus II or MATH 313 Linear Algebra</td>
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<td>CSC 210 Software Development</td>
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</tr>
<tr>
<td>CSC 352 Systems Programming &amp; UNIX</td>
</tr>
<tr>
<td>Paradigms Area Elective (CSC 372, 422, or 460)</td>
</tr>
<tr>
<td>Theory &amp; Writing Area Elective (CSC 445 or 473)</td>
</tr>
<tr>
<td>Systems Area Elective (CSC 452 or 453)</td>
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<td>CSC 400-489 Elective</td>
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</table>
What are the differences between a BA and BS in Computer Science?
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:

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<tr>
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<th>BA</th>
<th>BS</th>
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<tbody>
<tr>
<td><strong>Math Requirement</strong></td>
<td>College Algebra</td>
<td>Calculus I</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Calculus II or Linear Algebra</td>
</tr>
<tr>
<td><strong>Foreign Language</strong></td>
<td>4th semester proficiency</td>
<td>2nd semester proficiency</td>
</tr>
<tr>
<td><strong>Natural Science</strong></td>
<td>Two Tier I NATS One Tier II NATS</td>
<td></td>
</tr>
<tr>
<td><strong>General Education</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Lab Science</strong></td>
<td></td>
<td>Two courses*</td>
</tr>
<tr>
<td><strong>Minor</strong></td>
<td>Required</td>
<td></td>
</tr>
<tr>
<td><strong>CSC 400-level courses</strong></td>
<td>Two (minimum)</td>
<td>Five (minimum) (Three in core areas)</td>
</tr>
</tbody>
</table>

*Lab science courses may be substituted for General Education Tier I and/or Tier II Natural Science Requirements, but Natural Science courses may not be substituted for Supporting Science Requirements.

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.