



## Undergraduate Degree Options in Computer Science

(2016-2017 catalog)

### Bachelor of Arts

General Education & Supporting Coursework
ENGL 101&102, ENGL 107&108, or ENGL 109H
First Year Composition
Fourth-Semester Proficiency in Second Language
Two Tier I Traditions & Cultures
Two Tier I Individuals & Societies
Tier II Arts
Tier II Humanities
Tier II Individuals & Societies
Diversity Emphasis
Two Tier I Natural Sciences
Tier II Natural Science
MATH 112 College Algebra

Computer Science Coursework
CSC 110 Intro to Computer Programming I
CSC 120 Intro to Computer Programming II
CSC 245 Discrete Structures
CSC 210 Software Development
CSC 252 Computer Organization
CSC 335 Object-Oriented Programming
CSC 345 Analysis of Discrete Structures
CSC 352 Systems Programming & UNIX
CSC 400-489 Elective
CSC 400-489 Elective

### Bachelor of Science

General Education & Supporting Coursework
ENGL 101&102, ENGL 107&108, or ENGL 109H
First Year Composition
Second-Semester Proficiency in Second Language
Two Tier I Traditions & Cultures
Two Tier I Individuals & Societies
Tier II Arts
Tier II Humanities
Tier II Individuals & Societies
Diversity Emphasis
Two Supporting Sciences
MATH 122A&B or 125 Calculus I
MATH 129 Calculus II or MATH 313 Linear Algebra

Computer Science Coursework
CSC 110 Intro to Computer Programming I
CSC 120 Intro to Computer Programming II
CSC 245 (or MATH 243 or MATH 323) Discrete Structures
CSC 210 Software Development
CSC 252 Computer Organization
CSC 335 Object-Oriented Programming
CSC 345 Analysis of Discrete Structures
CSC 352 Systems Programming & UNIX
Paradigms Area Elective (CSC 372, 422, or 460)
Theory & Writing Area Elective (CSC 445 or 473)
Systems Area Elective (CSC 452 or 453)
CSC 400-489 Elective
CSC 400-489 Elective

\*A minor is required for the BA degree.

## 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:

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

\*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.

