

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 I Traditions & Cultures
Two Tier I Individuals & Societies
Tier II Arts
Tier II Humanities
Tier II Individuals & Societies
Diversity Emphasis (Only required as a separate class if it's not double dipped with another class)
Two Tier I Natural Sciences
Tier II 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
CSC 400-489 Elective
CSC 400-489 Elective

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 I Traditions & Cultures
Two Tier I Individuals & Societies
Tier II Arts
Tier II Humanities
Tier II 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/Systems Software)
CSC 400-489 Elective
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?

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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
Math Requirements	College Algebra	Calculus I Calculus II
Foreign Language	4th semester proficiency	2nd semester proficiency
NATS Gen Ed	2 Tier 1 NATS 1 Tier 2 NATS	N/A
Lab Sciences	N/A	2 courses
Minor	required	N/A
400-level CS courses	2 (minimum)	5 (minimum) 3 in core areas

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.