

BACHELOR OF ARTS IN COMPUTER SCIENCE

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Computers and computing have become increasingly integrated into our society and continually shape our lives. One does not have to look far to find examples of computing's significant impact, from smart phone applications to credit checking systems to self-driving cars. Society needs graduates with not only strong technical skills but also significant knowledge in these application domain areas. The Bachelor of Arts in Computer Science program offers a balanced curriculum that supports students as they combine study in computer science with other disciplines across the university. The program promotes this interdisciplinary work by providing a technical core with breadth requirements, a flexible elective structure, and required directed study outside the major. The curriculum is designed to prepare students to contribute to both established and emerging application domains.

BA in Computer Science Curriculum

Note: a minimum grade of C- is required for all computer science course prerequisites unless otherwise stated.

Within the policies of the School of Engineering, the Computer Science program enforces credit limits during the academic terms. Exceeding 18 credits in the Fall or Spring semesters, 4 credits in the January term, or 10 credits in each Summer term requires the approval of the Dean's Office.

Code	Title	Credits
University Curriculum		
Foundations of Inquiry:		
FYS 101	First-Year Seminar	3
EN 101	Introduction to Academic Reading and Writing	3
EN 102	Academic Writing and Research	3
Quantitative Literacy:		
MA 205	Introduction to Discrete Mathematics (CSC 205)	3
Disciplinary Inquiry:		
Take four UC courses from within Sciences (with lab), Humanities, Social Sciences, Fine Arts: ¹		13
Personal Inquiry I:		
Take three UC courses from within Sciences, Humanities, Social Sciences, Fine Arts ¹		
Personal Inquiry II:		
Choose one of the following: ²		
MA 141	Calculus of a Single Variable	
MA 229	Linear Algebra	
Take additional UC credits (the mathematics elective below could count) ⁴		
Personal Inquiry I and Personal Inquiry II Total		18
Integrative Capstone		3
Additional Requirements:		
MA elective ⁵		3
ENR 395	Professional Development Seminar	1

Directed Study		
Complete minimum 18 credits of approved directed study outside Computer Science ⁶		18
Computer Science Core Requirements		
CSC 110 & 110L	Programming and Problem Solving and Programming and Problem Solving Lab	4
CSC 111 & 111L	Data Structures and Abstraction and Data Structures and Abstraction Lab	4
SER 120 & 120L	Object-Oriented Design and Programming and Object-Oriented Design and Programming Lab	4
CSC 210 & 210L	Computer Architecture and Organization and Computer Architecture and Organization Lab	4
CSC 215	Algorithm Design and Analysis	3
CSC 225	Introduction to Software Development	3
CSC 493	Senior Thesis 1	1
CSC 494	Senior Thesis 2	3
CSC Electives (Take 9 credits of CSC elective courses) ³		9
Total Credits		103

- ¹ Courses must be from different areas.
- ² Counts in this category only if MA 141 is taken.
- ³ Can be a software engineering elective (SER 210 or any 300-level or above SER course).
- ⁴ Must meet a minimum of 18 credits in Personal Inquiry I & II.
- ⁵ Must be MA 140 or higher.
- ⁶ A minor or second major will satisfy this requirement.

Complete additional coursework to reach 120 credits. This coursework must include any missing UC credits from Personal Inquiry above.

Student Learning Outcomes

Upon completion of the program, graduates will have the following abilities:

- Analyze** a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions.
- Design, implement and evaluate** a computing-based solution to meet a given set of computing requirements in the context of the program's discipline.
- Communicate effectively** in a variety of professional contexts.
- Recognize** professional responsibilities and make informed judgments in computing practice based on legal and ethical principles.
- Function effectively** as a member or leader of a team engaged in activities appropriate to the program's discipline.

6. **Apply** computer science theory and software development fundamentals to produce computing-based solutions.

Program Educational Objectives

Graduates of the Computer Science BA or BS programs shall become successful professionals who are recognized for:

1. Advanced grasp of core computer science knowledge and skill.
2. Ability to communicate complex ideas and problems to a professional audience.
3. Ethical behavior and capacity for finding engineering solutions that consider both the technical and social consequences of their work.
4. Leadership, mentorship and contributions to their profession and community.
5. Pursuit of intellectual, personal and professional development.

Admission Requirements: School of Engineering

The requirements for admission into the undergraduate School of Engineering programs are the same as those for admission to Quinnipiac University.

Admission to the university is competitive, and applicants are expected to present a strong college prep program in high school. Prospective first-year students are strongly encouraged to file an application as early in the senior year as possible, and arrange to have first quarter grades sent from their high school counselor as soon as they are available.

For detailed admission requirements, including required documents, please visit the **Admissions** page of this catalog.

Seamless Transfer Agreement with Gateway Community College (GCC), Housatonic Community College (HCC) and Norwalk Community College (NCC)

Under this Transfer Agreement, GCC, HCC and NCC graduates will be guaranteed admission into a bachelor's degree program with third year (junior) status at Quinnipiac University on the condition that they:

- Graduate with an associate in arts, an associate in science in business, College of Technology engineering science and computer science, nursing or an allied health degree with a minimum cumulative GPA of 3.0 (this may be higher in specific programs).
- Satisfy all other Quinnipiac University transfer admission requirements and requirements for intended major.

Quinnipiac University agrees to accept the general education embedded in these associate degree programs in accordance with Quinnipiac preferred choices for general education as meeting all the requirements of its undergraduate general education except for the Integrative Capstone Experience and where courses are encumbered by the major (e.g., General Chemistry for the Disciplinary Inquiry Natural Science requirement for a Biochemistry major).

Suggested Transfer Curriculum for BA in Computer Science

A minimum of 60 credits is required for transfer into the BA in Computer Science program. Below is a sample plan of study for the first two years.

Course	Title	Credits
First Year		
Fall Semester		
English I		3
Calculus I		4
Java Programming I		4
Elective		3
Elective		3
Credits		17
Spring Semester		
English II		3
Discrete Mathematics		3
Java Programming II - Logic & Design		4
Elective		3
Elective		3
Credits		16
Second Year		
Fall Semester		
Calculus II		4
General Chemistry I with Lab		4
History Elective		3
Elective		3
Elective		3
Credits		17
Spring Semester		
Digital Circuits/Electronics		3
General Chemistry II with Lab		4
Math Elective		3
Elective		3
Elective		3
Credits		16
Total Credits		66