

Computer Science, B.A.

Requirements

The Bachelor of Arts with a major in computer science requires a minimum of 120 s.h., including at least 41 s.h. of work for the major. Students must maintain a g.p.a. of at least 2.00 in all courses for the major and in all UI courses for the major. A cumulative g.p.a. of at least 2.00 is required for graduation. Students also must complete the College of Liberal Arts and Sciences GE CLAS Core.

The computer science major for the Bachelor of Arts is designed for students who would like to gain considerable knowledge in computer science and have flexibility in choosing electives. Students preparing for careers in the computing field are encouraged to supplement the base requirements with additional computer science courses. The program's flexibility makes it suitable for combination with other majors.

Coursework for the major includes computer science courses as well as courses in mathematics, statistics, and other supporting disciplines. Work for the major may not be taken pass/nonpass.

Bachelor of Arts students considering a switch to the Bachelor of Science program should choose their GE CLAS Core Natural Sciences courses carefully since students may be able to use the same courses to satisfy the computer science major natural science sequences requirement for the B.S. degree. See "Natural Science Sequences" under Requirements in the B.S. in computer science section of the Catalog.

Students majoring in computer science may not earn a second major or a minor in business analytics and information systems, computer science and engineering, data science, or informatics.

Departmental Residency Requirement

Students who earn a B.A. in computer science must complete at least five courses (minimum of 15 s.h.) at the University of Iowa from the following: CS:2630 Computer Organization or ECE:3350 Computer Architecture and Organization, CS:2820 Introduction to Software Development, CS:3330 Algorithms, and at least two computer science courses numbered CS:3620-CS:5899, but excluding CS:3910 Informatics Project, CS:3980 Topics in Computer Science I, and CS:4310 Design and Implementation of Algorithms; these courses are requirements for the B.A. in computer science as listed below.

Program Requirements

The B.A. with a major in computer science requires the following coursework. Many courses for the major require a minimum grade of C-minus in prerequisite courses.

Code	Title	Hours
	Computer Science Core Courses	27-28
	Mathematics Core Courses	11-12
	Advanced Computer Science Electives	3
Total Hours		41-43

Computer Science Core

Code	Title	Hours
All of these:		
CS:1210	Computer Science I: Fundamentals	4
CS:2210	Discrete Structures	3
CS:2230	Computer Science II: Data Structures	4
CS:2820	Introduction to Software Development	4
CS:3330	Algorithms	3
CS:3820	Programming Language Concepts	3
One of these:		
CS:2630	Computer Organization	4
ECE:3350	Computer Architecture and Organization	3
One of these:		
CS:3620	Operating Systems	3
CS:3640	Introduction to Networks and Their Applications	3

Mathematics Core

Calculus I

Code	Title	Hours
One of these:		
MATH:1550	Engineering Mathematics I: Single Variable Calculus	4
MATH:1850	Calculus I	4

Calculus II

Code	Title	Hours
One of these:		
MATH:1560	Engineering Mathematics II: Multivariable Calculus	4
MATH:1860	Calculus II	4

Linear Algebra/Probability and Statistics

Students who take MATH:2550 Engineering Mathematics III: Matrix Algebra and MATH:2560 Engineering Mathematics IV: Differential Equations can use these courses together to satisfy the linear algebra requirement.

Code	Title	Hours
One of these:		
MATH:2700	Introduction to Linear Algebra	4
STAT:2020	Probability and Statistics for the Engineering and Physical Sciences	3
STAT:3120	Probability and Statistics	4

Advanced Computer Science Electives

Code	Title	Hours
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At least 3 s.h. from these:

A computer science course (prefix CS) numbered 3620-5899, except CS:3910, CS:3980, and CS:4310

A computer science course (prefix CS) numbered 5900 or above, with department approval

Students may count a maximum of 3 s.h. earned in CS:3990 Honors in Computer Science or Informatics toward the advanced computer science elective requirement.

Early Admission to the Graduate College

Undergraduate computer science students who have 6 s.h. or less to earn toward graduation may apply for early admission to the Graduate College. Early admission allows students in their final undergraduate semester to take courses for graduate credit in addition to the courses they need to complete their bachelor's degrees.