Computer Science, B.S.

Academic Plans

Four-Year Graduation Plan
The Four-Year Graduation Plan is not available to B.S. students majoring in computer science. Students work with their advisors on individual graduation plans.

Sample Plan of Study
Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Computer Science, B.S.

Course Title Hours
Academic Career
Any Semester
Effective fall 2022, computer science majors enrolled full-time and with 60 s.h. or more overall earned hours reflected on the UI grade report will be assessed $500 per semester supplemental tuition; the amount is pro-rated for part-time students. For more information see: https://cs.uiowa.edu/supplemental-tuition-effective-fall-2022.

GE CLAS Core: Sustainability a

First Year
Fall
CS:1210 Computer Science I: Fundamentals b 4
MATH:1850 Calculus I c 4
ENGL:1200 or RHET:1030 The Interpretation of Literature or Rhetoric 3 - 4
CS1600 or Success at Iowa 2
Elective course d 1

Total Hours 14-15

Spring
CS:2210 Discrete Structures 3
CS:2230 Computer Science II: Data Structures 4
MATH:1860 Calculus II 4
ENGL:1200 or RHET:1030 The Interpretation of Literature or Rhetoric 3 - 4
GE CLAS Core: Diversity and Inclusion e 3

Total Hours 17-18

Second Year
Fall
CS:2630 Computer Organization f 4
CS:3330 Algorithms f 3
Major: mathematics elective g 3 - 4
GE CLAS Core: World Languages First Level Proficiency or elective course h 4 - 5
Elective course d 1

Total Hours 15-17

Spring
CS:2820 Introduction to Software Development 4
CS:3820 Programming Language Concepts 3
Major: mathematics elective g 3 - 4
GE CLAS Core: Literary, Visual, and Performing Arts e 3
GE CLAS Core: World Languages Second Level Proficiency or elective course h 4 - 5
Elective course d 2

Total Hours 19-21

Third Year
Fall
CS:3640 or CS:3620 Introduction to Networks and Their Applications or Operating Systems 3
Major: advanced computer science elective i 3
GE CLAS Core: Natural Sciences without Lab e, j 3
GE CLAS Core: World Languages Second Level Proficiency or elective course h 4 - 5
Elective course d 1

Total Hours 13-14

Fourth Year
Fall
Major: advanced computer science or technical elective k 3
GE CLAS Core: Historical Perspectives e 3
GE CLAS Core: International and Global Issues e 3
Elective course d 3
Elective course d 3

Total Hours 15

Spring
Major: advanced computer science or technical elective k 3
GE CLAS Core: Social Sciences e 3
GE CLAS Core: Values and Culture e 3
Elective course d 3
Elective course d 3

Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) l

Total Hours 15-16

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative and Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Culture.
b Enrollment in this course requires completion of a placement exam.

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Enrollment in math courses requires completion of a placement exam.

Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

Students may take CS:2630, CS:2820 and CS:3330 in any order after completing CS:1210, CS:2210, and CS:2230.

Required math electives include (1) MATH:2700 and (2) STAT:2020 or STAT:3120

Students who have completed four years of a single language in high school have satisfied the GE CLAS Core World Languages requirement. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course.

Students may choose a computer science course (prefix CS) numbered 3620-5899, except CS:3910, CS:3980 and CS:4310, or a CS course numbered 5900 or above with department approval. A course used to complete a core requirement cannot also be used as a major elective.

The B.S. in computer science requires a 6-8 s.h., two-semester sequence science cognate. Select courses approved to meet the major requirement may also be used to meet the GE CLAS Core Natural Science requirement. See your academic advisor for additional information.

Students may choose a computer science course (prefix CS) numbered 3620-5890, except CS:3910, CS:3980 and CS:4310, or a CS course numbered 5900 or above with department approval. A course used to satisfy a core requirement cannot also be used as an advanced major elective. Alternatively, students may take a course in other disciplines with department approval. See academic advisor for additional information.

Please see Academic Calendar, Office of the Registrar website for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Graduation Services.