

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
First Year		
Fall		
CS:1210	Computer Science I: Fundamentals	4
MATH:1850	Calculus I ^a	4
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric	3 - 4
CSI:1600	Success at Iowa	2
Elective course ^b		1
Hours		14-15
Spring		
CS:2210	Discrete Structures	3
CS:2230	Computer Science II: Data Structures	4
MATH:1860	Calculus II	4
RHET:1030 or ENGL:1200	Rhetoric or The Interpretation of Literature	3 - 4
Elective course ^b		1
Hours		15-16
Second Year		
Fall		
CS:2630	Computer Organization ^c	4
Major: Math elective ^d		3
GE CLAS Core: World Languages First Level Proficiency or elective course ^e		4 - 5
GE CLAS Core: Diversity and Inclusion ^f		3
Elective course ^b		3
Hours		17-18
Spring		
CS:2820	Introduction to Software Development ^c	4
Major: Math elective ^d		3 - 4
GE CLAS Core: World Languages Second Level Proficiency or elective course ^e		4 - 5
GE CLAS Core: Literary, Visual, and Performing Arts ^f		3
Elective course ^b		2
Hours		16-18

Third Year

Fall		
Major: Computer Science core course ^g		3
CS:3330	Algorithms ^c	3
GE CLAS Core: World Languages Second Level Proficiency or elective course ^e		4 - 5
GE CLAS Core: Natural Sciences with Lab ^{f, h}		4
Elective course ^b		2
Hours		16-17

Spring

Major: Computer Science core course ^{g, i}		3
Major: Computer Science advanced elective course ^j		3
GE CLAS Core: World Languages Fourth Level Proficiency or elective course ^e		4 - 5
GE CLAS Core: Natural Sciences without Lab ^{f, h}		3
Elective course ^b		3
Hours		16-17

Fourth Year

Fall		
Major: Computer Science computational theory or logic course ^k		3
Major: Computer Science advanced elective ^j		3
GE CLAS Core: Historical Perspectives ^f		3
GE CLAS Core: International and Global Issues ^f		3
Elective course ^b		3
Hours		15
Spring		
Major: Computer Science advanced or technical elective course ^l		3
Major: Computer Science advanced or technical elective course ^l		3
GE CLAS Core: Social Sciences ^f		3
GE CLAS Core: Values and Culture ^f		3
Elective course ^b		3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) ^m		
Hours		15
Total Hours		124-131

- 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.
- 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.
- 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.
- Possible courses include (1) CS:3620 or CS:3640 for systems requirement or (2) CS:3820.
- The Computer Science B.S. degree 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.
- Systems course must be taken after CS:2630.

- j 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 complete a core requirement cannot also be used as a major elective.
- k Students may choose CS:4330 or CS:4350. Check with your advisor to see if these courses are offered in the semester you plan to take them.
- l 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.
- m 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.