

# Computer Science, B.A.

## Academic Plans

### Four-Year Graduation Plan

The Four-Year Graduation Plan is not available to B.A. 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.A.

Course	Title	Hours
<b>First Year</b>		
<b>Fall</b>		
MATH:1005	College Algebra <sup>a</sup>	4
RHET:1030	Rhetoric	3 - 4
	or ENGL:1200 or The Interpretation of Literature	
GE CLAS Core: Diversity and Inclusion <sup>b</sup>		3
GE CLAS Core: World Languages First Level Proficiency or elective course <sup>c</sup>		4 - 5
CSI:1600	Success at Iowa	2
<b>Hours</b>		<b>16-18</b>
<b>Spring</b>		
CS:1110	Introduction to Computer Science	3
RHET:1030	Rhetoric	3 - 4
	or ENGL:1200 or The Interpretation of Literature	
MATH:1010	Trigonometry	3
GE CLAS Core: Historical Perspectives <sup>b</sup>		3
GE CLAS Core: World Languages Second Level Proficiency or elective course <sup>c</sup>		4 - 5
<b>Hours</b>		<b>16-18</b>
<b>Second Year</b>		
<b>Fall</b>		
CS:1210	Computer Science I: Fundamentals	4
MATH:1850	Calculus I	4
GE CLAS Core: Social Sciences <sup>b</sup>		3
GE CLAS Core: World Languages Second Level Proficiency or elective course <sup>c</sup>		4 - 5
Elective course <sup>d</sup>		1
<b>Hours</b>		<b>16-17</b>
<b>Spring</b>		
CS:2210	Discrete Structures	3
MATH:1860	Calculus II	4
GE CLAS Core: World Languages Fourth Level Proficiency or elective course <sup>c</sup>		4 - 5
Elective course <sup>d</sup>		3
Elective course <sup>d</sup>		2
<b>Hours</b>		<b>16-17</b>

### Third Year

<b>Fall</b>		
CS:2230	Computer Science II: Data Structures	4
Major: Math core course <sup>e</sup>		3 - 4
GE CLAS Core: Natural Sciences with Lab <sup>b</sup>		4
Elective course <sup>d</sup>		3
Elective course <sup>d</sup>		1
<b>Hours</b>		<b>15-16</b>

<b>Spring</b>		
CS:2630	Computer Organization	3 - 4
	or ECE:3350 or Computer Architecture and Organization	
CS:2820	Introduction to Software Development <sup>f</sup>	4
GE CLAS Core: Literary, Visual, and Performing Arts <sup>b</sup>		3
GE CLAS Core: Natural Sciences without Lab <sup>b</sup>		3
Elective course <sup>d</sup>		2
<b>Hours</b>		<b>15-16</b>

### Fourth Year

<b>Fall</b>		
CS:3330	Algorithms <sup>f</sup>	3
CS:3640	Introduction to Networks and Their Applications	3
	or CS:3620 or Operating Systems	
GE CLAS Core: International and Global Issues <sup>b</sup>		3
Elective course <sup>d</sup>		3
Elective course <sup>d</sup>		3
<b>Hours</b>		<b>15</b>

<b>Spring</b>		
CS:3820	Programming Language Concepts <sup>f</sup>	3
Major: Computer Science advanced elective <sup>g</sup>		3
GE CLAS Core: Values and Culture <sup>b</sup>		3
Elective course <sup>d</sup>		3
Elective course <sup>d</sup>		3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) <sup>h</sup>		
<b>Hours</b>		<b>15</b>
<b>Total Hours</b>		<b>124-132</b>

- Enrollment in math courses requires completion of a placement exam.
- 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 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 use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.
- Choose from MATH:2700, STAT:2020, or STAT:3120.
- Students may take CS:2820, CS:3330, and CS:3820 in any order after completing CS:1210, CS:2210, and CS:2230.
- Students may choose a computer science course (prefix CS) numbered 3620-5890 (except CS:3910, CS:3980, 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.

- h 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.