

Name:

Student ID:

Computer Science—Specializations

2021-2022

The specialization is part of your major requirements. All major requirements must be taken for **letter grades**.

A **GPA of 2.0 or higher** is needed in the upper division courses of your major.

Only the completion of **one specialization** is needed to meet graduation requirements.

Most specialization requirements will overlap with the 11 upper division elective courses that is section (B) of your upper division requirements for your major.

Algorithms	
Complete <u>four</u> of the following courses: CS 162, 163, 164, 165, 166, 167, 169	1)
	2)
	3)
	4)

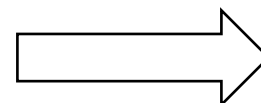
Architecture & Embedded Systems	
Complete <u>four</u> of the following courses: CS 145-145L, 147, 151, 152, 153, 154	1)
	2)
	3)
	4)

Bioinformatics	
(A) Complete CS 184A	1)
(B) Complete <u>two</u> more courses from the following: CS 172B, 172C, 184C	1)
	2)

General Computer Science		
Complete 11 courses from the following range: CS 103-189 <i>Exception: CS 161 cannot apply in this specialization</i>	1)	6)
	2)	7)
	3)	8)
	4)	9)
	5)	10)
	11)	

Information	
(A) Complete the following three courses: CS 121, 122A, and 178	CS 121:
	CS 122A:
	CS 178:
(B) Complete <u>one</u> of the following: CS 122B, 122C, 122D, 125, or 179	1)
(C) Complete <u>three more</u> courses from the following: ICS 45J, CS122B, 122C, 122D, 125, 132, 134, 141, 142A CS 143A, 163, 165, 167, 179	1)
	2)
	3)
Note that a course used in section (B) cannot also be used in section (C). ICS 45J is a lower division course and will not overlap with the 11 upper division electives of the CS major.	

Please continue to the back of the page to see the other options for a specialization in the Computer Science major.



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Intelligent Systems	
(A) Complete the following three courses: CS 171, 175, and 178	CS 171:
	CS 175:
	CS 178:
(B) Complete <u>three</u> from the following courses: CS 116, 121, 125, 162, 163, 164, 169, 177, 179	1)
	2)
	3)

Network Systems	
Complete all of the following courses: CS 132, 133, 134, 143A	CS 132:
	CS 133:
	CS 134:
	CS 143A

Systems and Software	
Complete three of the following courses: CS 131, 141, 142A, 142B, 143A, 143B	1)
	2)
	3)

Visual Computing	
Complete <u>four</u> from the following courses: CS 111, 112, 114, 116, 117 ICS 162	1)
	2)
	3)
	4)