B.S. COMPUTER SCIENCE

Fall 2022 – Spring 2023

CS REQUIREMENTS: A grade of "C" or better is required in the CS Core and the Math Core — **80 credits**

CS Core (all courses required):		**Math/Science Elective (choose 1)*:**	
CSCI 2101 Programming & Problem Solving I	(4)	MATH 2217 Calculus III	(5)
CSCI 2102 Programming & Problem Solving II	(4)	MATH 3323 Linear Algebra	(4)
CSCI 3103 Data Structures & Algorithms I	(4)	BIOL 1400/1405 Biodiversity & Evolution (w/ lab)	(5)
CIST 3230 Computer Networking Principles	(4)	CHEM 2120/2125 Chemistry II (w/ lab)	(5)
CSCI 3250 Computer Organization	(4)	PHYS 2230/2235 Physics II (w/ lab)	(6)
CSCI 4104 Data Structures & Algorithms II	(4)	**CS Electives (choose 4):**	
CSCI 4485 Software & Security Engineering	(4)	CIST 3222 Database Systems	(4)
CSCI 4600 Senior Seminar	(2)	CIST 3381 Information Assurance & Security	(4)
Math Core (all courses required):		CSCI 4105 Knowledge Discovery & Data Mining	(4)
MATH 2215 Calculus I	(5)	CSCI 4135 Web Application Engineering	(4)
MATH 2216 Calculus II	(5)	CSCI 4251 Operating Systems	(4)
MATH 2225 Discrete Mathematics I	(4)	CSCI 4463 Artificial Intelligence	(4)
CSCI 2226 Foundations of Computer Sci	(4)	CSCI 4464 Computer Vision	(4)
CSCI 3327 Probability & Applied Statistics	(4)	CSCI 4465 Machine Learning	(4)
Science Core (choose 1):		CSCI 4469 Computer Architecture	(4)
BIOL 1200/1205 Cells and Molecules (w/ lab)	(5)	CSCI 4481 Cryptography and Data Security	(4)
CHEM 2110/2115 Chemisty I (w/ lab)	(5)	CSCI 4510 Topics in Computer Science	(4)
PHYS 2220/225 Physics I (w/ lab)	(6)	CSCI 4800 Independent Study***	(0-4)
		Cognates (0-3+ credits as needed):**	
		CSCI 4800 Independent Study / CSCI 4900 Internship	(0-4)
		Other cognates**	as needed

*Students may also use a 2nd course from the Science Core here

**Any Stockton CSCI may be used as a cognate. (CSCI 1100 may not be taken by any CSCI major who has credit for a CSCI course at the 2000 level or above.) Any other course used for a cognate requires preceptor approval.

***To use CSCI 4800 as a CS elective, student must submit a proposal to the CSCI faculty mapping topic to CS learning goals.

++MATH 1100 and any CIST courses other than those listed above, if taken, count only as At Some Distance.

GENERAL STUDIES REQUIREMENTS: — **48 credits**

G COURSES: (32 total credits) No more than 12 credits in any "G" category may be applied towards the BS degree.			
GEN General Interdisciplinary	(4)	GNM General Natural Science & Math	(4)
GIS-General Integration & Synthesis (Jr. yr.)	(4)	GNM General Natural Science & Math	(4)
GAH General Arts & Humanities	(4)	GSS General Social Science	(4)
GAH General Arts & Humanities	(4)	GSS General Social Science	(4)
AT SOME DISTANCE Electives: (16 total credits) Courses unrelated to your major			
	(4)		(4)
	(4)		(4)

GENERAL STUDIES OUTCOME REQUIREMENTS: These course attributes should be completed within the 128 credits needed to graduate.

(A) Arts		(V) Values/Ethics	
(H) Historical Consciousness		(I) International/Multicultural	
(R1) Race and/or Racism Intensive		(R2) Race and/or Racism Education	

GENERAL STUDIES WRITING REQUIREMENT: (4 courses)

Two W1 courses may be in transfer. W2 courses must be taken at Stockton.

W1		W1/W2		W1/W2		W1/W2 at 3000 Level	

GENERAL STUDIES QUANTITATIVE REASONING REQUIREMENT: (3 courses)

Two Q1 courses may be in transfer. Q2 courses must be taken at Stockton.

Q1		Q2		Q1 or Q2	

Prerequisites must be met, check course description on the web.

Rev. 1/15/21

B.S. in Computer Science: Pre-req Diagram