## College of Science and Mathematics Department of Computer Science

## BS COMPUTER SCIENCE 2013 - 14, CSUF

<u>Type</u>	Course	<u>Units</u>	Class	<u>Prerequisite</u>	<u>Grade</u>
Core	CSCI 40	4	Intro to Programming and Problem Solving	ELM/ Trigonometry	
Core	CSCI 41	4	Intro to Data Structures	CSCI 40	
Core	CSCI 60	4	Foundation of Computer Science	CSCI 40 (Concurrent)	
Core	CSCI 112	4	Intro to Computer Systems	CSCI 41, 60	
Core	CSCI 113	4	Intro to Computer Organizations	CSCI 41	
Core	CSCI 115	4	Algorithms and Data Structures	CSCI 41, 60; Math 75	
Core	CSCI 117	4	Structures of Programming Languages	CSCI 41, 60	
Core	CSCI 119	4	Intro to Finite Automata	CSCI 41, 60	
Elective	CSCI 124	3	Intro to File Processing	CSCI 115	
Elective	CSCI 126	3	Database Systems	CSCI 124	
Elective	CSCI 130	3	Web Programming	CSCI 115	
Elective	CSCI 134	3	Compiler Design	CSCI 112, 115, 119	
Core	CSCI 144	3	Intro to Operating Systems	CSCI 41, 112 or ECE 118	
Elective	CSCI 146	3	Systems Architecture	CSCI 113, 144	
Elective	CSCI 148	3	Systems Programming	CSCI 113, 144	
Elective	CSCI 150	3	Intro to Software Engineering	CSCI 41	
Elective	CSCI 152S	3	Software Engineering	CSCI 150	
Elective	CSCI 154	3	Simulation	CSCI 41, 60, Math 75	
Elective	CSCI 156	3	Internetworking Systems and Protocols	CSCI 144 (or w/permission)	
	ECE 146	3	Computer Networking and Distributed Process	CSCI 60, 113	
Elective	CSCI 164	3	Artificial Intelligence Programming	CSCI 117	
Elective	CSCI 166	3	Principals of Artificial Intelligence	CSCI 164	
Elective	CSCI 172	3	Computer Graphics	CSCI 41,112 or ECE 118, Math 76	
Elective	CSCI 173	3	Advance Computer Graphics	CSCI 172	
Elective	CSCI 174	3	Design and Analysis of Algorithms	CSCI 115, 119	
Elective	CSCI 176	3	Parallel Processing	CSCI 113, 144	
Elective	CSCI 177	3	Distributed Computer Systems	CSCI 113, 144	
Elective	CSCI 186	3	Formal Languages and Automata	CSCI 119	
Elective	CSCI 188	3	Intro to Computability	CSCI 119	
Elective	CSCI 191T	1-3; max 6	Proseminar	Instructor Permission	
Elective	CSCI 198	3	Project	Instructor Permission	

## Requirements for the CSCI Major (Does not include GE)

\*LINE 1: Complete 9 core courses (35 units)

CSCI 40, 41, 60, 112, 113, 115, 117, 119, 144

\*LINE 2: Complete 1 approved sequence

Select from: CSCI 124 & 126, 144 & 146, 144 & 148, 150 & 152, 156 & ECE 146, 164 & 166, 172 & 173, 176 & 177, 186 & 188

\*LINE 3: Complete 7 elective courses (include Line 2)

Select from: CSCI 124, 126, 130, 134, 146, 144, 148, 150, 152, 154,156, 164, 166, 172, 173, 174, 176, 177, 186, 188, 191T (max total 6 units)

\*LINE 4: Complete CSCI 198 or a second course in another approved sequence

## \*ADD'l REQ: Complete the following additional courses

\*Math 75 & 76, Phys 2A & 2B or Phys 4A & 4AL & 4B & 4BL (6 units of these additional requirements courses may also be used in GE)

(This sheet is for informational purposes only. Refer to the University Catalogue for details.)