

Requirements for Bachelor of Science Degree in Computer Science

Effective July, 2013
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equiv	•	DSC requ	uirements for General Education or
	valent.	G 114	
CS R	equirements	Credits	Prerequisites and notes
•	CS 1400, Fundamentals of Programming	3	
•	CS 1410, Object-Oriented Programming	3	CS 1400 (C- or higher)
•	CS 2420, Intro to Algorithms and Data Structures	3	CS 1410 (C- or higher)
•	CS 2450, Software Engineering	3	CS 2420 (C- or higher)
•	CS 2810, Computer Organization and Architecture	3	CS 1410 (C- or higher)
•	CS 3005, Programming in C++	3	CS 1410 (C- or higher)
•	CS 3510, Advanced Algorithms/Data Structures	3	CS 2420, CS 2810 and CS 3310 (all >=C-)
•	CS 3520, Programming Language	3	CS 2420 and CS 2810 (all >=C-)
•	CS 3530, Computational Theory	3	CS 2420, CS 2810 and CS 3310 (all >=C-)
•	CS 3600, Graphics Programming	3	CS 2420 and CS 3005 (all >=C-)
•	CS 4300, Artificial Intelligence	3	CS 2420, CS 2810 and CS 3005 (all >=C-)
•	CS 4307, Database Design and Management	3	CS 2420 and CS 2810 (all >=C-)
•	CS 4550, Compilers	3	CS 2420, CS 2810 and CS 3005 (all >=C-)
•	CS 4600, Senior Project	3	Senior Standing
Choo	se one of the following:		•
•	CS 3000 Internet Publishing & Design or	3	CS 2420 (C- or higher)
	CS 4000, Dynamic Web Development or	3	CS 2420 and VT 1400 (all >=C-)
	CS 4010, Interactive Web Development	3	CS 2420 and VT 1400 (all >=C-)
Choo	se one of the following:		
•	CS 3400, Operating Systems or	3	CS 2420, CS 2810 and CS 3005 (all >=C-)
	CS 3410, Distributed Systems	3	CS 2420 and CS 2810 (all >=C-)
	TOTAL	47	
Math	& Science Core Requirements	Credits	Prerequisites and Notes
•	BIOL 1610/1615 Principles of Biology I with Lab	5	•
•	CS 3310, Discrete Math	3	CS 1410 and MATH 1210 (all >=C-)
•	MATH 1210, Calculus I	5	MATH 1065 (C or higher)
•	MATH 1220, Calculus II	4	Math 1210 (C or higher)
•	PHYS 2210/2215 Physics for Scientists/Engineers I with Lab	5	Math 1210
	TOTAL	22	
Math	& Science Elective Courses (8 or more credits from the	Credits	Prerequisites and Notes
	ving list; at least 3 credits with MATH prefix)	Cicuits	Trerequisites and reotes
•	MATH 2210, Multivariable Calculus	3	MATH 1220 (C or higher)
•	MATH 2270, Linear Algebra	3	MATH 1210 (C or higher)
•	MATH 2280, Ordinary Differential Equations	3	MATH 1220 (C or higher)
•	MATH 3400, Probability and Statistics	3	MATH 1220 (C or higher)
•	BIOL 1620/1625 Principles of Biology II with Lab	5	BIOL 1610/1615
_	CHEM 1210/1215 Principles of Chemistry I with Lab	5	MATH 1050 (C or higher)
•			
		5	
•	CHEM 1220/1225 Principles of Chemistry II with Lab	5 5	CHEM 1210/1215 PHYS 2210/2215 and MATH 1220
•			CHEM 1210/1215
•	CHEM 1220/1225 Principles of Chemistry II with Lab PHYS 2220/2225 Physics for Scientists/Engineers II with Lab TOTAL	5 8	CHEM 1210/1215 PHYS 2210/2215 and MATH 1220
Complist) *	CHEM 1220/1225 Principles of Chemistry II with Lab PHYS 2220/2225 Physics for Scientists/Engineers II with Lab TOTAL puter Science Elective Courses (9 credits from the following A course used to fulfill CS requirements cannot be used as	5	CHEM 1210/1215
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Complist) **	CHEM 1220/1225 Principles of Chemistry II with Lab PHYS 2220/2225 Physics for Scientists/Engineers II with Lab TOTAL puter Science Elective Courses (9 credits from the following A course used to fulfill CS requirements cannot be used as ective course. CS 3000*, Internet Publishing & Design	5 8 Credits	CHEM 1210/1215 PHYS 2210/2215 and MATH 1220 Prerequisites and Notes CS 2420 (C- or higher)
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Complist) * an ele	CHEM 1220/1225 Principles of Chemistry II with Lab PHYS 2220/2225 Physics for Scientists/Engineers II with Lab TOTAL puter Science Elective Courses (9 credits from the following A course used to fulfill CS requirements cannot be used as ective course. CS 3000*, Internet Publishing & Design CS 3010, Mobile App Development CS 3100, Interactive Multimedia CS 3400*, Operating Systems CS 3410*, Distributed Systems	5 8 Credits 3 3 3 3 3 3	CHEM 1210/1215 PHYS 2210/2215 and MATH 1220 Prerequisites and Notes CS 2420 (C- or higher) CS 2420 and CS 3005 (all >= C-) CS 2420 (C- or higher) CS 2420, CS 2810 and CS 3005(all >= C-) CS 2420 and CS 2810 (all >= C-)
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Dixie State's general graduation requirements are described in this online catalog under the "Advisement and Graduation" link. Those requirements are also available in the College's online policies at http://www.dixie.edu/humanres/policy/sec5/520.html.



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 CS 4010*, Interactive Web Development 	3	CS 2420 and VT 1400 (all >= C-)
CS 4990, Seminars in Computer Science	1-6	Instructor Permission Required
 IT 3100, Systems Design and Administration I 	3	CS 1400 and IT 2400 (all >= C-)
IT 3110, Systems Design and Administration II	3	IT 3100 (C- or higher)
IT 3200, Perl Programming	3	CS 1410 (C- or higher)
IT 4200, Advanced Web Delivery	3	IT 3100 and VT 1400 (all >= C-)
IT 4500, Information Security	3	IT 3100 (C- or higher)
VT 1400, Into to Internet Development	3	
TOTAL	9	

Complete a minimum of 120 college-level credits (1000 and above). Complete at least 40 upper-division credits (3000 and above). Complete at least 30 upper-division credits at DSC for institutional residency. Cumulative GPA 2.0 or higher. Grade C- or higher in each Core Discipline and Elective Requirement Course. Math prerequisites requires C or higher. A course may only be used to fulfill one program requirement. NOTE: This is a worksheet only. For graduation you must use the 2013-2014Catalog.

*NOTE: A course may only be used to fulfill one program requirement.