

# Requirements for Bachelor of Science Degree in Computer and Information Technology with Computer Science (CS) Emphasis

Effective July 2010

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<b>General Education Requirements:</b> Students must complete the DSC requirements for General Education or equivalent.		
<b>CS Emphasis Requirements</b>	<b>Credits</b>	<b>Prerequisites and notes</b>
• CS 1400, Fundamentals of Programming	3	
• CS 1410, Object-Oriented Programming	3	CS 1400
• CS 2420, Intro to Algorithms and Data Structures	3	CS 1410
• CS 2450, Software Engineering	3	CS 2420
• CS 2810, Computer Organization and Architecture	3	CS 1410
• CS 3005, Programming in C++	1	CS 1410
• CS 3310, Discrete Math	3	CS 1410 and MATH 1210
• CS 3400, Operating Systems or CS 3410, Distributed Systems	3 3	CS 2420 and CS 2810, or CS 2420, CS 2810 and IT 2400
• CS 3510, Advanced Algorithms/Data Structures	3	CS 2420, CS 2810 and CS 3310
• CS 3520, Programming Language	3	CS 2420 and CS 2810
• CS 3530, Computational Theory	3	CS 2420, CS 2810 and CS 3310
• CS 3600, Graphics Programming	3	CS 2420 and CS 2810
• CS 4300, Artificial Intelligence	3	CS 2420 and CS 2810
• CS 4550, Compilers	3	CS 2420 and CS 2810
• CS 4600, Senior Project	3	Senior Status
• IT 1100, Introduction to Operating Systems	3	
• IT 2400, Introduction to Networking	3	IT 1100
• IT 4300, Database Design and Management	3	CS 1400 and IT 1100
• MATH 1210, Calculus I	5	MATH 1050 and MATH 1060, or MATH 1065.
• VT 1400, Intro. to Internet Development	3	
• ENGL 3010, Writing in the Professions	3	ENGL 2010
<b>TOTAL</b>	<b>63</b>	
<b>CS Emphasis Electives (9 credits from the following)</b>	<b>Credits</b>	<b>Prerequisites and Notes</b>
• CS 3400, Operating Systems or CS 3410, Distributed Systems	3 3	CS 2420 and CS 2810, or CS 2420, CS 2810 and IT 2400
• CS 3500, Application Development	3	CS 1410
• CS 4000, Dynamic Web Development	3	CS 2420 and VT 1400
• CS 4010, Interactive Web Development	3	CS 2420 and VT 1400
• IT 3100, Systems Design and Administration I	3	CS 1400 and IT 2400
• IT 3110, Systems Design and Administration II	3	IT 3100
• IT 3200, Perl Programming	3	CS 1410
• IT 4200, Advanced Web Delivery	3	IT 3100 and VT 1400
• IT 4500, Information Security	3	CS 1400 and IT 3100
• MATH 1220, Calculus II	4	MATH 1210
• MATH 2210, Multivariable Calculus	3	MATH 1220
• MATH 2270, Linear Algebra	3	MATH 1210
• MATH 2280, Ordinary Differential Equations	3	MATH 2210 and MATH 2270
• MATH 3400, Probability and Statistics	3	MATH 1220
<b>TOTAL</b>	<b>9</b>	

**A minimum of 40 upper-division credits are required. Total credits for baccalaureate degree: 120**  
**All CS, IT, and VT prerequisites require a grade of C or higher. Math prerequisites requires C or higher. All courses listed above must be completed with a grade of C- or higher. A GPA of 2.0 or higher is required for graduation. Courses used to fill required credits can not be used to fill elective credit.**

**NOTE: This is a worksheet only. For graduation you must use the 2010-2011 Catalog.**