MONMOUTH UNIVERSITY CURRICULUM CHART

Bachelor of Science in Computer Science with a Concentration in Advanced Computing

MAJOR REQUIREMENTS/COMPUTER SCIENCE: 51 Credits	Credits
CS-102: Introduction to Computing and Problem Solving	4.0
CS-175: Introduction to Computer Science I	4.0
CS-176: Introduction to Computer Science II	4.0
CS-202: Discrete Math and Applications	4.0
CS-286: Computer Architecture I	3.0
CS-205: Data Structures and Algorithms	4.0
CS-325: Software Engineering Concepts	3.0
CS-310: Advanced Object Oriented Programming/Design	4.0
CS-432: Database Systems	4.0
CS-438: Operating Systems Analysis	4.0
CS-490: Senior Project	4.0
Take 6 Credits of Computer Science 200+ level:	6.0
CS-200+: *(See Exceptions*)*	
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**Except the following courses: CS-288, CS-388, CS-488, CS-212 CS-222, CS-302, CS-312, CS-316, CS-320, CS-322, and CS-330*	
Take 3 Credits of Computer Science 400+ level:	3.0
CS-400+: *(Except CS488)*	

INTERDISCIPLINARY REQUIREMENTS: 26 Credits	Credits
MA-125: Calculus with Analytic Geometry I	4.0
MA-126: Calculus with Analytic Geometry II	4.0
MA-220: Probability and Statistics I	3.0
Take 8 credits from ONE of the Following Groups:	8.0
CE-111/CE-111L: General Chemistry I/Lab **AND**	
CE-112/CE-112L: General Chemistry II/Lab	
OR	
PH-211/PH-211L: General Physics with Calculus I/Lab **AND**	
PH-212/PH-212L: General Physics with Calculus II/Lab	
OR	
BY-109: Introduction to Biodiversity and Evolution **AND**	
BY-110: Introduction to Cell and Molecular Biology	
Take 4 additional credits (not taken above) from the following courses:	4.0
BY-109: Introduction to Biodiversity and Evolution	
BY-111: Anatomy and Physiology I	
BY-223: General Microbiology	
CE-111 and CE-111L: General Chemistry I and Lab	
CE-220 and CE-220L: Environmental Chemistry and Lab	
CE-221 and CE-221L: Quantitative Analysis and Lab	
CE-241 and CE-241L: Organic Chemistry I and Lab	
PH-211 and PH-211L: General Physics with Calculus I and Lab	
Take 3 Credits from the following courses:	3.0
PH-301, PH-302, BY-201, BY-205, BY-214, BY-220, BY-221, MA-311, MA-318, MA-221, MA-225, or MA-320	

FREE ELECTIVES: 18 Credits	Credits
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GENERAL EDUCATION REQUIREMENTS: 33 Credits		Credits
First Year Seminar	FY-101: First Year Seminar	3.0
Reading and Writing	EN-101: College Composition I	3.0
	EN-102: College Composition II	3.0
Mathematics	Fulfilled in Interdisciplinary Requirements with MA-125 or MA-126	0.0
Natural Sciences	Fulfilled in Interdisciplinary Requirements with required courses	0.0
Literature	3 Credits from courses designated with Course*Type: LIT	3.0
Aesthetics and Creativity	3 Credits from Art, Music, Theatre, or Dance	3.0
Technological Literacy	Fulfilled in Major Requirements with CS-102	0.0
Reasoned Oral Discourse	Fulfilled in Interdisciplinary Requirements with CS-490	0.0
Historical Perspective	3 Credits from courses designated with Course*Type: HS.SV	3.0
Social Science	3 Credits from courses designated with Course*Type: SS.SV	3.0
Historical Perspective/Social Sciences	3 Credits from courses designated with Course*Type: HS.SV **or** 3 Credits from courses designated with Course*Type: SS.SV	3.0
Interdisciplinary Perspectives	3 Credits from courses designated with Course*Type: ISP	3.0
Cultural Diversity and Global Understanding or Foreign Language	3 Credits from courses designated with Course*Type: CD **and** 3 Credits from courses designated with Course*Type: GU **or** 6 Credits from the SAME foreign language	6.0
Experiential Education	One course designated with Course*Type: EX	0.0
Writing Intensive	Two courses from Computer Science (CS) designated with Course*Type: WT	0.0 0.0

Minimum Credits for Bachelor of Science in Computer Science with a Concentration in Advanced Computing = 128.0

NOTES:

*** 58 credits must be completed at the 200 level or higher.**