

Associate of Science Degree in Computer Science at Brookdale Community College

And

Bachelor of Science Degree in Computer Information Technology at William Paterson University

<u>AS Computer Science</u>			
<u>Brookdale Courses</u>	<u>Credits</u>	<u>WPU Equivalency</u>	<u>Credits</u>
<u>Semester 1</u>			
COMP 126 Computer Logic and Design	3	CS 1300 Introduction to Visual Basic	3
COMP 171 Programming I	3	CS 2300 Computer Science I	4
ENGL 121 The writing process	3	ENG 1100	3
MATH 171 Calculus I	4	MATH 1600 Calculus I	4
Social Sciences Credits	3		
<u>Semester 2</u>			
COMP 135 Computer Architecture Using Assembly Language	3	CS 2800 Computer/Assembler Language (Department will substitute for CS 2350 Fundamentals of Computer Hardware)	3
ENGL 122 Writing and Research	3	Elective Credit	3
COMP 271 Programming II	3	CS 2421 Object-Oriented Programming with Java	4
MATH 172 Calculus II	4	MATH 1610 Calculus II	4
Social Sciences or Humanities Credits	3		3
<u>Semester 3</u>			
COMP 225 Operating Systems Technology	3	Elective Credit	3
COMP 226 System Analysis and Design	3	CS 4035 System Analysis and Design	3
COMP 269 Database Concepts	3	CS 3550 Data Base Management Concepts & Applications (for CIT)	3
PHYS 121 General Physics	4	PHYS 2600 General Physics I	4
<u>Semester 4</u>			
COMP 228 Data Structures	3	CS 3420 Data Structure	4
COMP 296 Advanced Software Project	3	Elective Credit	3
PHYS 122 General Physics II	4	PHYS 2610 General Physics II	4
Humanities Credits	3		
MATH 285 Linear Algebra	3	MATH 2020 Linear Algebra (Department will substitute for MATH 2300 Statistics I)	3

<u>BS-Computer Information Technology</u>			
		<u>CIT Basic Core Courses 20 credits</u>	
		CS 2010 Computer and Info. Technology	3
		CS 2350 Fundamentals of Computer Hardware	3
		CS 2352 Applied Operating Systems	3
		CS 2650 Discrete Structures for CIT	3
		<u>CIT Advanced Core Courses 23 credits</u>	
		CS 3351 Computer Network I	4
		CS 3352 Computer Networks II	4
		CS 3401 System Administration	3
		CS 3570 Fundamentals of Web-Based Information Technology	3
		CS 3660 Fundamentals of Information Assurance and Security	3
		CS 4500 CIT Seminar	3
		<u>CIT Major Supporting Courses</u>	
		MATH 2300 Statistics I	4
		<u>CIT Electives (Choose 12 Credits)</u>	
		CS 3950 Computer Information Systems Internship	3
		CS 3990 Selected Topics	1 - 6
		CS 4051 Internet Applications With Java	3
		CS 4060 Applied Cryptography	3
		CS 4066 Penetration Testing & Ethical Hacking	3
		CS 4070 Data Science Analytics	3
		CS 4080 Data Mining and Machine Learning	3
		CS 4090 Parallel and Distributed Systems	3
		CS 4201 Database Driven Web Applications	3
		CS 4250 Computer and Network Security	3
		CS 4700 Cloud Computing	3
Notes:			
1. William Paterson University will accept all associate degree credits under this program-to-program articulation agreement, including up to have of the William Paterson University major required credits, from New Jersey community college students who enroll at William Paterson University			
2. William Paterson University recommends students to take two semesters of one foreign language at the community college. Two semesters of American Sign Language can also fulfill the foreign language requirement.			