

Associate of Science Degree in Math/Science, Science Option at Brookdale Community College

And

Bachelor of Science Degree in Biotechnology at William Paterson University

<u>AS Math/Science- Science Option</u>			
<u>Brookdale Courses</u>	<u>Credits</u>	<u>WPU Equivalency</u>	<u>Credits</u>
<u>Semester 1</u>			
MATH 171 Calculus I	4	MATH 1600	4
ENGL 121 English Composition	3	ENG 1100 College Writing	3
CHEM 101 General Chemistry I	5	CHEM 1600 General Chemistry I	4
Humanities Credits			
<u>Semester 2</u>			
MATH 172 Calculus II	4	MATH 1610 Calculus II	4
ENGL 122 English Composition: Writing & Research	3	Elective Credit	3
Social Sciences Credits			
BIOL 101 General Biology I	4	BIO 1630 General Biology CMG	4
<u>Semester 3</u>			
CHEM 203 Organic Chemistry I	5	CHEM 2570 Organic Chemistry I	4
CHEM 236 Biochemistry	5	CHEM 4270 Biochemistry	4
PHYS 121 General Physics I	4	PHYS 2600 General Physics I	4
<u>Semester 4</u>			
CHEM 204 Organic Chemistry II	5	CHEM 2580 Organic Chemistry II	4
Humanities or Social Science Credits			
COMP 126 Computer Logic & Design	3	CS 2010 Computer Info & Technology	3
COMP 129 Information Technology	3	Elective Credit	3
PHYS 122 General Physics II	4	PHYS 2610 General Physics II	4
<u>BS-Biotechnology (64 credits required for the major)</u>			
		<u>Biotechnology Major Core Requirements</u>	
		BIO 2050 Cell Biology	4
		BIO 2060 General Genetics	4
		BIO 3200 Microbiology	4
		BIO 4240 Molecular Biology	4
		BIO 4300 Biotechnology: DNA	4
		BIO 4310 Biotechnology: Cell Culture	4

		<u>Biotechnology Major Elective (choose one)</u>	
		BIO 3020 Human Heredity	3
		BIO 3080 Animal Physiology	4
		BIO 3180 Zoology	4
		BIO 3330 Field Entomology	4
		BIO 3350 Field Botany	3
		BIO 3400 Ecology	4
		BIO 3450 Conservation Biology	3
		BIO 3500 Animal Behavior	3
		BIO 3520 Economic Botany	3
		BIO 3610 General Botany	4
		BIO 3650 Plant Physiology	4
		BIO 3720 Mathematical Models in the Biological Sciences	4
		BIO 4020 Aquatic Ecology	4
		BIO 4110 Physiology of Human Reproduction and Fertility	3
		BIO 4150 Evolutionary Physiology	4
		BIO 4160 Comparative Animal Physiology	4
		BIO 4170 Histology	4
		BIO 4210 Developmental Biology	4
		BIO 4220 Human Physiology	3
		BIO 4340 Genomics and Bioinformatics	4
		BIO 4330 Evolutionary Medicine	3
		BIO 4440 Evolution	3
		BIO 4500 Molecular Biology of Prokaryotes	4
		BIO 4600 Pharmacology	3
		BIO 4630 Terrestrial Plant Ecology	4
		BIO 4700 Bioethics	3
		BIO 4740 Neuroscience	4
		BIO 4840 Scanning Electron Microscopy	4
		BIO 4850 Transmission Electron Microscopy	4
		<u>Biotechnology Major Plant Elective (choose one)</u>	
		BIO 3350 Field Botany	3
		BIO 3610 General Botany	4
		BIO 3650 Plant Physiology	4
		BIO 4630 Terrestrial Plant Ecology	4
		<u>Biotechnology Major Capstone</u>	

		<u>(Minimum 3 Credits Required)</u>	
		BIO 4800 Biology Seminar	3
		BIO 4990 Independent Study	2 - 6
Notes:			
<p>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</p>			
<p>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.</p>			