

## Appendix 38

### Associate of Science in Science and Math: Mathematics at Sussex County Community College and Bachelor of Science in Mathematics at William Paterson University, College of Science and Health

<u>SCCC Courses AS</u>	<u>Credits</u>	<u>WP Equivalencies BS</u>
	<b><u>Semester 1</u></b>	
COLL101 Foundations for Success	3	WPU1010 Will Power
ENGL101 English Composition I	3	ENG1100 College Writing
MATH113 Calculus I	4	MATH1600 Calculus I
COMS104 Intro to Computer Science I	3	CS 2300 Computer Science I
ECON101 Macroeconomics	3	ECON2010 Macroeconomic Principles
	<b><u>Semester 2</u></b>	
ENGL102 English Composition II	3	ENG1500 Experiences in Literature
MATH114 Calculus II	4	MAT1610 Calculus II
Social Science Elective	3	Equivalent Social Science Credit
ECON102 Microeconomics	3	ECON2020 Microeconomic Principles
Humanities Requirement	3	Equivalent Humanities Credit
	<b><u>Semester 3</u></b>	
MATH213 Calculus III	4	MATH2010 Calculus III
MATH215 Linear Algebra	4	MATH2020 Linear Algebra
PHYS120 Physics I with Calculus	4	PHYS2600 General Physics I
Social Science Elective	3	Equivalent Social Science Credit
	<b><u>Semester 4</u></b>	
COLL212 Graduation Capstone	1	Degree Credit
MATH220 Ordinary Differential Eqn w /Applic	4	MATH3220 Differential Equations
PHYS121 Physics II with Calculus	4	PHYS2610 General Physics II
MATH201 Discrete Mathematics	4	MATH 2000 Logic and Methods of Higher Mathematics
<b>WP BS Mathematics (45 credits in the major)</b>		
	<b><u>Semester 5</u></b>	
	4	MATH 3240 Probability and Statistics
	3	World Language I or ASL I
	3	MATH3010 Modern Algebra
	3	Choose a free elective/minor course
	3	Choose a free elective/minor course
	<b><u>Semester 6</u></b>	
	3	MATH 4230 Real Analysis
	3	World Language II or ASL II
	3	Choose a major elective ( <b>list below</b> )
	3	Choose a major elective ( <b>list below</b> )
	3	Choose a free elective/minor course

	<b>Semester 7</b>	
	3	MATH 4220 Complex Analysis
	3	Choose a free elective/minor course
	3	Choose a major elective ( <b>list below</b> )
	3	Choose a free elective/minor course
	3	Choose a free elective/minor course
	<b>Semester 8</b>	
	2	MATH 4900 Mathematics Research Experience
	3	Choose a major elective ( <b>list below</b> )
	3	Choose a free elective/minor course
	3	Choose a free elective/minor course
		<b>Mathematics Elective Requirement (BS)</b>
		Required Credits: 12
		Select four (4) courses; at least one must be at the 4000-level.
		MATH 2200 Python for Exploration
		MATH 3110 Number Theory
		MATH 3230 Foundations of Geometry
		MATH 3260 Mathematical Models in Finance I
		MATH 3320 Statistical Computing
		MATH 3340 Applied Regression Analysis
		MATH 3350 Introduction to Numerical Analysis
		MATH 3800 Linear and Nonlinear Optimization
		MATH 3990 Selected Topics
		MATH 4010 Applied Algebra
		MATH 4110 Advanced Discrete Math
		MATH 4130 Experimental Design for Statistics
		MATH 4150 Topics From Applied Math
		MATH 4210 Mathematical Statistics
		MATH 4220 Complex Analysis
		MATH 4250 Introduction to Topology
		MATH 4270 Mathematical Models Finance II
		MATH 4300 Derivative Markets
		MATH 4990 Independent Study
		PHYS 2610 General Physics II

Notes:

1. William Paterson University will accept all Associate of Arts, Associate of Science, or Associate of Fine Arts degree credits under this program-to-program articulation agreement, including up to half 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 take two semesters of one foreign language at the community college. Two semesters of American Sign Language can also fulfill the foreign language requirement.
3. WP Online students should always check with their WP Online advisor and/or refer to the semester course schedule when choosing electives, as elective course offerings may vary each semester.