

Appendix A

**Passaic County Community College
Associate in Science in Liberal Arts degrees-Science and Mathematics Options
and
Associate in Science in Applied Computer Science degree**

to

**William Paterson University College of Science and Health
Bachelor of Science and Bachelor of Arts degrees in Science and Mathematics**

This Transfer Articulation Agreement is meant to cover Passaic County Community College students graduating with Associate in Science in Liberal Arts-Science and Mathematics degree Options including *Biology, Physical Science, Mathematics, and Exercise Science*; as well as, students graduating with Associate in Science in Applied Computer Science degrees, entering the following Bachelor of Science and Bachelor of Arts degree programs at the William Paterson University College of Science and Health:

<i>Biology-General-BS</i>	<i>Exercise Science-BS</i>
<i>Biology-Ecology-BS</i>	<i>Mathematics BA, BS</i>
<i>Biology-Physiology and Behavior-BS</i>	<i>Integrated Math & Science-Env. Science BA</i>
<i>Biotechnology-BS</i>	<i>Integrated Math & Science-Biology BA</i>
<i>Chemistry-BA, BS</i>	<i>Integrated Math & Science-Chemistry BA</i>
<i>Computer Science-BS</i>	<i>Integrated Math & Science-Mathematics BA</i>
<i>Environmental Science-BS</i>	

Program	Credits	Courses at PCCC	Equivalence at William Paterson University
<i>Associate in Science in Liberal Arts Degree- Science and Mathematics: Biology Option to Biology-General-BS; Biology-Ecology-BS; Biology-Physiology and Behavior-BS; Biotechnology-BS; and Environmental Science-BS</i>	4	BS 101 Biology I (required)	BIO 1630 General Biology I (required except for Environmental Sci)
	4	BS 102 Biology II (required)	BIO 1640 General Biology II (required except for Biotech)
	4	CH 111 General Chemistry I (required)	CHEM 1600 General Chemistry I (required)
	4	CH 112 General Chemistry II (required)	CHEM 1620 General Chemistry II (required)
	4	CH 211 Organic Chemistry I (required science elective choice)	CHEM 2570 Organic Chemistry I (required)
	4	CH 212 Organic Chemistry II (required science elective choice)	CHEM 2580 Organic Chemistry II (required)
	4	BS 207 Cell Biology (required science elective choice)	BIO 2050 Cell Biology (required except for Environmental Science)
	4	MA 121 Calculus II (required)	MATH 1610 Calculus II (required)
	4	PY 120 Physics I Or PY 101 College Physics I (required science elective choice)	PHYS 2600 General Physics I Or PHYS 2550 College Physics I (required only for Environmental Sci)
4	PY 121 Physics II Or PY 102 College Physics II (required science elective choice)	PHYS 2610 General Physics II Or PHYS 2560 College Physics II (required)	

Program	Credits	Courses at PCCC	Equivalence at William Paterson University
<i>Associate in Science in Liberal Arts Degree- Science and Mathematics: Physical Science Option to Chemistry-BA; Chemistry-BS</i>	4	CH 111 General Chemistry I (required)	CHEM 1600 General Chemistry I (required)
	4	CH 112 General Chemistry II (required)	CHEM 1620 General Chemistry II (required)
	4	CH 211 Organic Chemistry I (required)	CHEM 2570 Organic Chemistry I (required)
	4	CH 212 Organic Chemistry II (required)	CHEM 2580 Organic Chemistry II (required)
	4	MA 121 Calculus II (required)	MATH 1610 Calculus II (required)
	4	PY 121 Physics II (required)	PHYS 2610 General Physics II (required)

Program	Credits	Courses at PCCC	Equivalence at William Paterson University
Associate in Science in Liberal Arts Degree- Science and Mathematics Exercise Science Option to Exercise Science BS	4	BS 104 Anatomy and Physiology II (required)	BIO 1190 Basic Anatomy and Physiology II (required)
	4	CH 111 General Chemistry I (required) Or CH 103 Introduction to General and Organic Chemistry (science elective)	CHEM 1310 College Chemistry (required)
	4 to 3	SC 103 Nutrition (required)	PBHL 2210 Nutrition (required)
	3	PE 119 Care and Prevention of Athletic Injuries (required)	APEP 2400 Prevention and Care of Athletic Injuries (elective credit)
	4	BS 201 Fundamentals of Exercise Physiology (required)	KNES 3500 Physiology of Exercise (required)
	3	PE 114 First Aid, CPR, and Safety Education (required)	KNES 2000 First Aid and CPR (major elective)
	3	PE 116 Concepts of Fitness and Wellness (required)	KNES 1000 Active Lifestyles for Health (Area One University Core)

Program	Credits	Courses at PCCC	Equivalence at William Paterson University
Associate in Science in Applied Computer Science to Computer Science BS	4	CIS 160 Fundamentals of Computer Science I (required)	CS 2300 Computer Science I (required)
	4	CIS 161 Fundamentals of Computer Science II (required)	CS 2400 Computer Science II (required)
	3	CIS 236 Computer Organization and Architecture (required)	CS 2800 Computer and Assembler Language (required)
	3	CIS 250 Discrete Structures (required)	CS 2600 Discrete Structures (required)
	3	CIS 260 Data Structures (required)	CS 3420 Data Structures (required)
	6 to 3	CIS 290 Database Fundamentals AND CIS 202 System Analysis and Design	CS 4400 Database Management (required elective choice) Or CS 3550 Data Management Concepts and Applications (required)
	4	MA 121 Calculus II (required)	MATH 1610 Calculus II (required)
	4	BS 102 Biology II Or CH 112 General Chemistry II Or PY 102 College Physics II (required)	BIO 1640 General Biology II Or CHEM 1620 General Chemistry II Or PHYS 2560 College Physics II (required)

Program	Credits	Courses at PCCC	Equivalence at William Paterson University
<i>Associate in Science in Liberal Arts Degree- Science and Mathematics: Mathematics Option to Mathematics BA; Mathematics BS</i>	4	MA 121 Calculus II <i>(required)</i>	MATH 1610 Calculus II <i>(required)</i>
	4	MA 150 Discrete Mathematics Or MA 200 Linear Algebra <i>(required elective choice)</i>	MATH 2000 Logic and Methods of Higher Math <i>(required)</i> Or MATH 2020 Linear Algebra <i>(required)</i>
	4	MA 201 Calculus III <i>(required)</i>	MATH 2010 Calculus III <i>(required)</i>
	4 to 3	MA 202 Differential Equations <i>(required)</i>	MATH 3220 Differential Equations <i>(required)</i>
	4	PY 121 Physics II <i>(required science elective choice)</i>	PHYS 2610 General Physics II <i>(required)</i>
	4	CIS 165 Fundamentals of C++ Programming <i>(required)</i>	CS 2300 Computer Science I <i>(required)</i>

Program	Credits	Courses at PCCC	Equivalence at William Paterson University
<i>Associate in Science in Liberal Arts Degree- Science and Mathematics: Biology Option or Physical Science Option to Integrated Math & Science - Environmental Science BA</i>	4	CH 111 General Chemistry I <i>(required- Bio & Phys Sci)</i>	CHEM 1600 General Chemistry I <i>(required)</i>
	4	CH 112 General Chemistry II <i>(required- Bio & Phys Sci)</i>	CHEM 1620 General Chemistry II <i>(required)</i>
	4	PY 120 Physics I <i>(required for Phys Sci; required science elective choice for Bio)</i>	PHYS 2600 General Physics I <i>(PHYS 1100 Intro to Physics required)</i>
	3	CIS 101 Computer Concepts and Applications -OR - CIS 107 Information Technology Fundamentals and Applications <i>(required-Bio & Phys Sci)</i>	CS 2010 Computer and Information Technology <i>(required)</i>
	4	SC 202 Introduction to Geology <i>(required science elective choice ONLY for Phys Sci)</i>	ENV 1150 General Geology <i>(required)</i>

Program	Credits	Courses at PCCC	Equivalence at William Paterson University
<i>Associate in Science in Liberal Arts Degree- Science and Mathematics: Biology Option or Physical Science Option to Integrated Math & Science- Biology BA</i>	4	BS 101 Biology I (<i>required-Bio</i>)	BIO 1630 General Biology I (<i>required</i>)
	4	BS 102 Biology II (<i>required-Bio</i>)	BIO 1640 General Biology II (<i>required</i>)
	4	CH 111 General Chemistry I (<i>required-Bio & Phys Sci</i>)	CHEM 1600 General Chemistry I (<i>required</i>)
	4	CH 112 General Chemistry II (<i>required-Bio & Phys Sci</i>)	CHEM 1620 General Chemistry II (<i>required</i>)
	3	CIS 101 Computer Concepts and Applications -OR - CIS 107 Information Technology Fundamentals and Applications (<i>required-Bio & Phys Sci</i>)	CS 2010 Computer and Information Technology (<i>required</i>)
	4	BS 204 Introduction to Ecology (<i>required-Bio</i>)	BIO 2490 Ecology, Evolution, and Behavior (<i>required</i>)
	4	PY 120 Physics I (<i>required science elective choice-Bio; required-Physics</i>)	PHYS 2600 General Physics I (<i>PHYS 1100 Intro.to Physics required</i>)

Program	Credits	Courses at PCCC	Equivalence at William Paterson University
<i>Associate in Science in Liberal Arts Degree- Science and Mathematics: Biology Option or Physical Science Option to Integrated Math & Science - Chemistry BA</i>	4	CH 111 General Chemistry I (<i>required-Bio & Phys Sci</i>)	CHEM 1600 General Chemistry I (<i>required</i>)
	4	CH 112 General Chemistry II (<i>required-Bio & Phys Sci</i>)	CHEM 1620 General Chemistry II (<i>required</i>)
	4	CH 211 Organic Chemistry I (<i>required science elective choice-Bio; required-Phys Sci</i>)	CHEM 2570 Organic Chemistry I (<i>required</i>)
	4	CH 212 Organic Chemistry II (<i>required science elective choice-Bio; required-Phys Sci</i>)	CHEM 2580 Organic Chemistry II (<i>required</i>)
	3	CIS 101 Computer Concepts and Applications -OR - CIS 107 Information Technology Fundamentals and Applications (<i>required-Bio & Phys Sci</i>)	CS 2010 Computer and Information Technology (<i>required</i>)
	4	PY 120 Physics I (<i>required science elective choice-Bio; required-Phys Sci</i>)	PHYS 2600 General Physics I (<i>PHYS 1100 Intro to Physics required</i>)

Program	Credits	Courses at PCCC	Equivalence at William Paterson University
<i>Associate in Science in Liberal Arts Degree- Science and Mathematics: Mathematics Option to Integrated Math & Science Mathematics BA</i>	4	MA 120 Calculus I (required)	MATH 1600 Calculus I (required)
	4	MA 121 Calculus II (required)	MATH 1610 Calculus II (required)
	4	MA 200 Linear Algebra (required elective choice)	MATH 2020 Linear Algebra (required)
	8	BS 101 Biology I - AND - BS 102 Biology II (required science sequence elective choice)	BIO 1630 General Biology I - AND - BIO 1640 General Biology II (BIO 1140 Applied Anatomy and Physiology and BIO.1300 Field Biology required)
	4	PY 120 Physics I (required science sequence elective choice)	PHYS 2600 General Physics I (PHYS 1100 Intro to Physics required)

Notes:

1. 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.
2. William Paterson University will accept all associate 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 Fall 2015 and beyond.