

Appendix A

Associate in Science Degree in Science/Mathematics Associate in Science Degree in Environmental Studies at Sussex County Community College

to

Bachelor of Science and Bachelor of Arts degrees at William Paterson University College of Science and Health

This Transfer Articulation Agreement is meant to cover students graduating with a Sussex County Community College Associate in Science degree in Science/Mathematics with the following options:

Biology

Geology

Chemistry

Information Systems

Computer Science

Mathematics

entering the following Bachelor of Science and Bachelor of Arts programs at William Paterson University College of Science and Health:

Biology-General-BS

Environmental Science-BS

Biology-Ecology-BS

Mathematics-BA or BS

Biology-Physiology and Behavior-BS

Integrated Math & Science -Biology BA

Biotechnology-BS

Integrated Math & Science -Chemistry BA

Chemistry-BA or BS

Integrated Math & Science -Mathematics BA

Computer Science-BS

Additionally, this Transfer Articulation Agreement is meant to cover students graduating with a Sussex County Community College Associate in Science degree in Environmental Studies entering the Bachelor of Science degree in Environmental Science or the Bachelor of Arts degree in Integrated Math & Science-Environmental Science at William Paterson University College of Science and Health.

Program	Credits	Courses at Sussex County Community College	Equivalence at William Paterson University
<i>Associate in Science- Science/Math - Biology Option; Pre-Medical/Dental Option; Pre-Nutrition/Dietetic Option to Biology-General-BS; Biology-Ecology-BS; Biology/Physiology/Behavior- BS; Biotechnology-BS</i>	4	MATH 113 Calculus I (<i>required</i>)	MATH 1600 Calculus I (<i>prerequisite</i>)
	4	MATH 114 Calculus II (<i>required</i>)	MATH 1610 Calculus II (<i>required</i>)
	4	BIOS 110 Biology I (<i>required</i>)	BIO 1630 General Biology I (<i>required</i>)
	4	BIOS 112 Biology II (<i>required</i>)	BIO 1640 General Biology II (<i>required</i>)
	4	CHEM 110 College Chemistry I (<i>required</i>)	CHEM 1600 Gen Chem I (<i>required</i>)
	4	CHEM 112 College Chemistry II (<i>required</i>)	CHEM 1620 Gen Chem II (<i>required</i>)
	5	CHEM 210 Organic Chemistry I (<i>required for Pre-Med & Pre-Nutrition Options; required elective choice for Biology Option</i>)	CHEM 2570 Organic Chemistry I (<i>required</i>)
	5	CHEM 212 Organic Chemistry II (<i>required for Pre-Med & Pre-Nutrition Options; required elective choice for Biology Option</i>)	CHEM 2580 Organic Chemistry II (<i>required</i>)
	4	PHYS 110 Physics I (<i>required for Pre-Med</i>)	PHYS 2550 College Physics I (<i>prerequisite</i>)
4	PHYS 112 Physics II (<i>required for Pre-Med</i>)	PHYS 2560 College Physics II (<i>required</i>)	

Program	Credits	Courses at Sussex County Community College	Equivalence at William Paterson University
Associate in Science- Science/Math - Chemistry Option to Chemistry-BS; Chemistry BA	4	CHEM 110 College Chemistry I (required)	CHEM 1600 Gen Chem I (required)
	4	CHEM 112 College Chemistry II (required)	CHEM 1620 Gen Chem II (required)
	5	CHEM 210 Organic Chemistry I (required)	CHEM 2570 Organic Chemistry I (required)
	5	CHEM 212 Organic Chemistry II (required)	CHEM 2580 Organic Chemistry II(required)
	4	MATH 114 Calculus I (required)	MATH 1600 Calculus I (prerequisite)
	4	MATH 114 Calculus II (required)	MATH 1610 Calculus II (required)
	4	PHYS 120 Physics I with Calculus I (required)	PHYS 2600 General Physics I (prerequisite)
	4	PHYS 121 Physics II with Calculus II (required)	PHYS 2610 General Physics II (required)

Program	Credits	Courses at Sussex County Community College	Equivalence at William Paterson University
Associate in Science- Science/Math- Computer Science Option to Computer Science- BS	4	MATH 113 Calculus I (required)	MATH 1600 Calculus I (prerequisite)
	4	MATH 114 Calculus II (required)	MATH 1610 Calculus II (required)
	4	MATH 213 Calculus III (required choice)	MATH 2010 Calculus III (required choice)
	4 to 3	MATH 201 Discrete Mathematics (required choice)	CS 2600 Discrete Structures (required)
	4	PHYS 110 Physics I (required Science sequence choice)	PHYS 2550 College Physics I (prerequisite)
	4	PHYS 112 Physics II (required Science sequence choice)	PHYS 2560 College Physics II (required)
	3	COMS 115 Intro to Computer Science II (required)	CS 2010 Computer & Info Tech (free elective)
	3	COMS 218 Database Management Systems (required)	CS 3550 Data Management Concepts and Applications (free elective)
	3	COMS 221 Operating Systems (required)	CS 3450 Operating Systems (required)
	3	COMS 223 Data Structures (required)	CS 3420 Data Structures (required)
	3	COMS 239 Fundamentals of Computer Architecture (required)	CS 2800 Computer and Assembler Language (required)
	3	COMS 142 Programming in C++ (required elective choice)	CS 2300 Computer Science I (required)
	3	COMS 143 Advanced Programming in C++ (required elective choice)	CS 2400 Computer Science II (required)

Program	Credits	Courses at Sussex County Community College	Equivalence at William Paterson University
Associate in Science- Science/Math- Information Systems Option to Computer Science- BS	4	MATH 113 Calculus I (<i>required</i>)	MATH 1600 Calculus I (<i>prerequisite</i>)
	8	BIOS 110 Biology I –and- BIOS 112 Biology II (<i>required Science sequence choice</i>) <i>Or</i> CHEM 110 College Chemistry I –and- CHEM 112 College Chemistry II (<i>required Science sequence choice</i>) <i>Or</i> PHYS 110 Physics I –and- PHYS 112 Physics II (<i>required Science sequence choice</i>)	BIO 1630 General Biology I (<i>prerequisite</i>) BIO 1640 General Biology II (<i>required elective choice</i>) <i>Or</i> CHEM 1600 Gen Chem I (<i>prerequisite</i>) CHEM 1620 Gen Chem II (<i>required elective choice</i>) <i>Or</i> PHYS 2550 College Physics I (<i>prerequisite</i>) PHYS 2560 College Physics II (<i>required elective choice</i>)
	3	COMS 115 Introduction to Computer Science II (<i>required</i>)	CS 2010 Computer & Information Technology (<i>free elective</i>)
	3	COMS 155 Web Site Development I (<i>required</i>)	CS 2100 Web Page and Site Design (<i>free elective</i>)
	3	COMS 218 Database Management Systems (<i>required</i>)	CS 3550 Data Management Concepts and Applications (<i>free elective</i>)
	3	COMS 230 Networks and Telecommunications (<i>required</i>)	CS 3350 Fundamentals of Computer Networking (<i>free elective</i>)
	3	COMS 239 Fundamentals of Computer Architecture (<i>required</i>)	CS 2800 Computer and Assembler Language (<i>required</i>)
3	COMS 142 Programming in C++ OR COMS 221 Operating Systems OR COMS 223 Data Structures (<i>required elective choices</i>)	CS 2300 Computer Science I OR CS 3450 Operating Systems OR CS 3420 Data Structures (<i>required</i>)	

Program	Credits	Courses at Sussex County Community College	Equivalence at William Paterson University
<i>Associate in Science- Science/Math- Mathematics Option to Mathematics-BS; Mathematics-BA</i>	3	ECON 101 Macroeconomics (<i>required</i>)	ECON 2010 Macroeconomic Principles (<i>free elective</i>)
	3	ECON 102 Microeconomics (<i>required</i>)	ECON 2020 Microeconomic Principles (<i>free elective</i>)
	3	COMS 114 Intro to Computer Science I (<i>required</i>)	CS 2010 Computer and Information Technology (<i>free elective</i>)
	3	COMS 142 Programming in C++ (<i>elective</i>)	CS 2300 Computer Science I (<i>required</i>)
	4	MATH 113 Calculus I (<i>required</i>)	MATH 1600 Calculus I (<i>prerequisite</i>)
	4	MATH 114 Calculus II (<i>required</i>)	MATH 1610 Calculus II (<i>required</i>)
	4	MATH 213 Calculus III (<i>required</i>)	MATH 2010 Calculus III (<i>required</i>)
	4	MATH 215 Linear Algebra (<i>required</i>)	MATH 2020 Linear Algebra (<i>required</i>)
	4	MATH 220 Ordinary Differential Equations with Applications (<i>required</i>)	MATH 3220 Differential Equations (<i>required</i>)
	4	PHYS 120 Physics I with Calculus I (<i>required</i>)	PHYS 2600 General Physics I (<i>prerequisite</i>)
4	PHYS 121 Physics II with Calculus II (<i>required</i>)	PHYS 2610 General Physics II (<i>required</i>)	

Program	Credits	Courses at Sussex County Community College	Equivalence at William Paterson University
<i>Associate in Science- Science/Math- Biology Option to Integrated Math & Science -Biology BA</i>	4	BIOS 110 Biology I (<i>required</i>)	BIO 1630 General Biology I (<i>required</i>)
	4	BIOS 112 Biology II (<i>required</i>)	BIO 1640 General Biology II (<i>required</i>)
	3	CHEM 110 College Chemistry I (<i>required</i>)	CHEM 1600 Gen Chem I (<i>required</i>)
	4	CHEM 112 College Chemistry II (<i>required</i>)	CHEM 1620 Gen Chem II (<i>required</i>)
	3	COMS 114 Intro to Computer Science I <i>substituted for</i> COMS 110 Computer Concepts and Applications (<i>required</i>)	CS 2010 Computer and Information Technology (<i>required</i>) [COMS 110 equivalent to CS 1300 Introduction to Visual Basic (<i>free elective</i>)]
	4	BIOS 122 Introduction to Environmental Science (<i>elective</i>)	ENV 1100 Environmental Sustainability (<i>required</i>)
	3	MATH 108 Statistics (<i>required</i>)	MATH 1300 Elementary Statistics (<i>free elective</i>)

Program	Credits	Courses at Sussex County Community College	Equivalence at William Paterson University
<i>Associate in Science- Science/Math- Chemistry Option to Integrated Math & Science - Chemistry BA</i>	4	CHEM 110 College Chemistry I <i>(required)</i>	CHEM 1600 Gen Chem I <i>(required)</i>
	4	CHEM 112 College Chemistry II <i>(required)</i>	CHEM 1620 Gen Chem II <i>(required)</i>
	5	CHEM 210 Organic Chemistry I <i>(required)</i>	CHEM 2570 Organic Chemistry I <i>(required)</i>
	5	CHEM 212 Organic Chemistry II <i>(required)</i>	CHEM 2580 Organic Chemistry II <i>(required)</i>
	3	COMS 114 Intro to Computer Science I <i>(required)</i>	CS 2010 Computer & Info Tech. <i>(required)</i>
	4	PHYS 120 Physics I with Calculus <i>(required)</i>	PHY 1100 Intro to Physics <i>(required)</i>

Program	Credits	Courses at Sussex County Community College	Equivalence at William Paterson University
<i>Associate in Science- Science/Math- Mathematics Option to Integrated Math & Science – Mathematics BA</i>	4	MATH 113 Calculus I <i>(required)</i>	MATH 1600 Calculus I <i>(required)</i>
	4	MATH 114 Calculus II <i>(required)</i>	MATH 1610 Calculus II <i>(required)</i>
	4	MATH 215 Linear Algebra <i>(required)</i>	MATH 2020 Linear Algebra <i>(required)</i>
	3	COMS 114 Intro to Computer Science I <i>(required)</i>	CS 2010 Computer & Info Tech. <i>(required)</i>
	4	MATH 220 Ordinary Differential Equations with Applications <i>(required)</i>	MATH 3220 Differential Equations <i>(free elective)</i>
	4	PHYS 120 Physics I with Calculus <i>(required)</i>	PHY 1100 Intro to Physics <i>(required)</i>

Program	Credits	Courses at Sussex County Community College	Equivalence at William Paterson University
<i>Associate in Science- Science/Math- Geology Option to Environmental Science-BS</i>	4	MATH 113 Calculus I (<i>required</i>)	MATH 1600 Calculus I (<i>prerequisite</i>)
	4	MATH 114 Calculus II (<i>required</i>)	MATH 1610 Calculus II (<i>required</i>)
	4	BIOS 122 Introduction to Environmental Science (<i>required</i>)	ENV 1100 Environmental Sustainability (<i>required</i>)
	4	GEOL 101 Physical Geology (<i>required</i>)	ENV 1150 General Geology (<i>required</i>)
	8	CHEM 110 College Chemistry I –and- CHEM 112 College Chemistry II (<i>required</i>)	CHEM 1600 Gen Chem I-and- CHEM 1620 Gen Chem II (<i>required</i>)
	8	PHYS 120 Physics I with Calculus –and- PHYS 121 Physics II with Calculus (<i>required</i>)	PHYS 2600 General Physics I –and- PHYS 2610 General Physics II (<i>required elective choice</i>)
	5	CHEM 210 Organic Chemistry I (<i>required science elective choice</i>)	CHEM 2570 Organic Chemistry I (<i>required</i>)
	5	CHEM 212 Organic Chemistry II (<i>required science elective choice</i>)	CHEM 2580 Organic Chemistry II (<i>required</i>)
	4	BIOS 110 Biology I (<i>required science elective choice</i>)	BIO 1630 General Biology I (<i>prerequisite</i>)
	4	BIOS 112 Biology II (<i>required science elective choice</i>)	BIO 1640 General Biology II (<i>required</i>)

Program	Credits	Courses at Sussex County Community College	Equivalence at William Paterson University
<i>Associate in Science in Environmental Studies to Bachelor of Science in Environmental Science</i>	4	MATH 113 Calculus I (<i>required</i>)	MATH 1600 Calculus I (<i>prerequisite</i>)
	4	MATH 114 Calculus II (<i>required</i>)	MATH 1610 Calculus II (<i>required</i>)
	4	GEOL 101 Physical Geology (<i>required</i>)	ENV 1150 General Geology (<i>required</i>)
	4	BIOS 122 Intro to Environmental Science (<i>required</i>)	ENV 1100 Environmental Sustainability (<i>required</i>)
	4	BIOS 110 Biology I (<i>required</i>)	BIO 1630 General Biology I (<i>prerequisite</i>)
	4	BIOS 112 Biology II (<i>required</i>)	BIO 1640 General Biology II (<i>required</i>)
	8	CHEM 110 College Chemistry I –and- CHEM 112 College Chemistry II (<i>required sequence choice</i>)	CHEM 1600 Gen Chem I-and- CHEM 1620 Gen Chem II (<i>required</i>)
	8	PHYS 110 Physics I –and- PHYS 112 Physics II (<i>required sequence choice</i>)	PHYS 2550 College Physics I –and- PHYS 2560 College Physics II (<i>required elective choice</i>)
	8	PHYS 120 Physics I with Calculus –and- PHYS 121 Physics II with Calculus (<i>required elective choice</i>)	PHYS 2600 General Physics I –and- PHYS 2610 General Physics II (<i>required elective choice</i>)
	5	CHEM 210 Organic Chemistry I (<i>required elective choice</i>)	CHEM 2570 Organic Chemistry I (<i>required</i>)
	5	CHEM 212 Organic Chemistry II (<i>required elective choice</i>)	CHEM 2580 Organic Chemistry II (<i>required</i>)

Program	Credits	Courses at Sussex County Community College	Equivalence at William Paterson University
<i>Associate in Science in Environmental Studies to Bachelor of Arts in Integrated Math & Science – Environmental Science</i>	4	CHEM 110 College Chemistry I <i>(required)</i>	CHEM 1600 Gen Chem I <i>(required)</i>
	4	CHEM 112 College Chemistry II <i>(required)</i>	CHEM 1620 Gen Chem II <i>(required)</i>
	3	COMS 114 Intro to Computer Science I <i>substituted for</i> COMS 110 Computer Concepts and Applications <i>(required)</i>]	CS 2010 Computer and Information Technology <i>(required)</i> [COMS 110 equivalent to CS 1300 Introduction to Visual Basic <i>(free elective)</i>]
	4	BIOS 122 Introduction to Environmental Science <i>(required)</i>	ENV 1100 Environmental Sustainability <i>(required)</i>
	4	GEOL 101 Physical Geology <i>(required)</i>	ENV 1150 General Geology <i>(required)</i>
	8	BIOS 110 Biology I <i>(required)</i> –and- BIOS 112 Biology II <i>(required)</i>	BIO 1140 Applied Anatomy and Physiology <i>(required)</i> –and- BIO 1300 Field Biology <i>(required)</i>
	4	PHYS 100 Concepts of Physics –or- PHYS 110 Physics I <i>(required elective choice)</i>	PHY 1100 Intro to Physics <i>(required)</i>

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.