Mohawk Valley Community College **Engineering Science**						SUNY Polytechnic Institute **B.S Nanoscale Science**				
Course #	**Course Title**	**SUNY Gen Ed**		**Credits Granted**		**Course #**	**Equivalent Course Title**	**SUNY Gen Ed**		**Credits Accepted**
CF 100	College Foundation Seminar			1		FYS 101	First Year Seminar			1
CH141	General Chemistry 1	X		4		NSCI 114/115	Chemical Principles of Nanoscale Science & Engineering I and Lab	X		4
CI140	Computer Programming for Engineers and Scientists			3		NSCI 202	Computer Programming			3
EN101	English 1: Composition	X		3		ENG 101	English Composition	X		3
ES151	Introduction to Engineering			2		NSCI 101	Nanotechnology Survey			2
MA151	Calculus 1	X		4		MAT 151	Calculus I	X		4
	Physical Education			.5			Recreation Elective			.5
BM101	Core GE Social Science Elective (See "A" below)	X		3		SOS xxx	General Education-Social Science	X		
EN102	English 2: Ideas & Values in Literature	X		3		ENG 110	Intro to Literature	X		3
ES175	Engineering Science Design			3		NSCI 201	Engineering Design			3
MA152	Calculus 2	X		4		MAT 152	Calculus II	X		4
PH261	Engineering Physics 1	X		4		NSCI 126/127	Physical Principles of Nanoscale Science & Engineering I and Lab	X		4
	Physical Education			.5			Recreation Elective			.5
ES271	Engineering Statics			3		ESC 210	Engineering Mechanics-Statics—Design & Skills			3
ES291	Electrical Circuits 1			4		NSCI 203	Circuits			4
MA253	Calculus 3	X		4		MAT 253	Calculus III	X		4
PH262	Engineering Physics 2	X		4		NSCI 128/129	Physical Principles of Nanoscale Science & Engineering II and Lab	X		4
PY101	Social Science Elective (See "A" below)	X		3		PSY 100	Introduction to Psychology	X		3
	Physical Education			.5			Recreation Elective			.5
MA260	Differential Equations			3		MAT 260	Ordinary differential equations & series solutions			3
ES261	Mechanics of Materials			3		ESC 230	Mechanics of Materials—Design & Skills			3
ES272	Engineering Dynamics			3		ESC 240	Engineering Mechanics-Dynamics-Design & Skills			3
	Restricted Elective (See "B" below)	X		4		NSCI116/117 Or NSCI 140/141	Chemical Principle of Nanoscale Science & Engineering II and Lab or Physical Principles of Nanoscale Science & Engineering III & Lab	X		4
	Physical Education			.5			Recreation Elective			.5
						NSCI 210	Introduction to Nanobioscience Methods and Skills			3
						NSCI 220	Structure of Matter			3
						NSCI 230	Thermodynamics and Statistical Mechanics for Nanoscale Systems			3
							Gen Ed/ Elective			3
						NSCI3XX or 4XX	Concentration Course			3
						NSCI 300	Integrated NanoLaboratory I			3
						NSCI 350	Introduction to Quantum Theory for Nanoscale Systems			3
							Gen Ed/ Elective			3
						NSCI3XX or 4XX	Concentration Course			3
						NSCI 305	Integrated NanoLaboratory II			3
						NSCI 360	Nanoscale Molecular Materials and Soft Matter			3
						NSCI 390	Capstone Research I: Intro and Literature Review			3

							Gen Ed/ Elective			3
						NSCI 410	Quantum Origins of Material Behavior			3
						NSCI 490 or 491	Capstone Research II: Team Research and Project Review			3
						NSCI3XX or 4XX	Concentration Course			3
						NSCI 4XX	Topical Elective Course			3
							Unrestricted Elective			3
						NSCI 4XX	Concentration Course			3
						NSCI 492 or 493	Capstone Research III: Team Research and Final Report			3
						NSCI/NENG 4XX	Topical Elective Course			3
						NSCI/ NENG 4XX	Topical Elective Course			3
							Unrestricted Elective			3
	Total Credits Eligible for Transfer			**67**			Total Transfer Credits Applied to Program			**51**
							Total Credits Required after Transfer			**69**
							Total Credits Required for Degree			**120**

A.) Core GE Social Science Elective (choose two, one if which must be a bolded course): **AN 101, BM 101, PS 101, PY 101, SO 101,** HI 101

B.) Restricted Elective (choose one): CH 142 & PH 265.
SUNY Poly recommends to take **BOTH** courses, although the degree only allows room for one.

Completion of this bachelors program will require more than four semesters are full time status.