

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.