

SUNY Adirondack Engineering Science			SUNY Polytechnic Nanoscale Engineering		
Course #	Course Title	Credits	Course #	Equivalent Course Title	Credits Accepted
Year One- Fall					
HRD100, HRD100A or HRD110	Freshman Experience	1	ELEC000	General Elective	1
ENG101	Writing I	3	ENG 101	Freshmen Composition	3
MAT131	Calculus I	4	MAT 151	Calculus I	4
EGR120	Introduction to Engineering	3	NENG 201	Engineering Design	3
	SUNY GEN ED Social Science	3	SOS 001	Gen Ed Social Science	3
CHM111	General Chemistry I	4	NENG 114 & NENG 115	Chemical Principles of Nanoscale Science and Engineering I and Laboratory	4
Health and Wellness	Health and Wellness	1	REC 000	Recreation Elective	1
Year One-Spring					
ENG110	Elements of Technical Writing	3	ASCI 000	Arts and Sciences Elective	3
MAT132	Calculus II	4	MAT 152	Calculus II	4
EGR105	Engineering Physics I	4	NENG 126 and NENG 127	Physical Principles of Nanoscale Science and Engineering I and Laboratory	4
CIS143	Introduction to Programming	3	NENG 202	Computer Programming	3
Engineering Core elective (See Note 1)	CHM 112- General Chemistr I	4	NENG 116 & NENG 117	Chemical Principles of Nanoscale Science and Engineering II and Laboratory	4
Year Two- Fall					
EGR222	Circuit Analysis	4	NENG 203	Nanoengineering Electronics	3
MAT231	Calculus III	4	MAT 253	Calculus III	4
EGR106	Engineering Physics II	4	NENG 128 and NENG 129	Physical Principles of Nanoscale Science and Engineering II and Laboratory	4
	SUNY GEN ED The Arts, SUNY GEN ED Humanities or SUNY GEN ED Foreign Languages	3		SUNY GEN ED The Arts, SUNY GEN ED Humanities or SUNY GEN ED Foreign Languages	3
	Engineering Core elective (See Note 1)	3 or 4		Engineering Elective	3 or 4
Year Two-Spring					
Health and Wellness	Health and Wellness	1	REC 000	Recreation Elective	1
MAT232	Differential Equations and Series	4	MAT 260	Ordinary Differential Equations & Series Solutions	4
EGR204	Engineering Physics III	4	NENG 140 and NENG 141	Physical Principles of Nanoscale Science and Engineering III and Laboratory	4
	Engineering Core elective (See Note 1)	3 or 4		Engineering Elective	3 or 4
Year Three-Fall					
			NENG 301	Thermodynamics & Kinetics of Nanomaterials 3 NENG 304 – Fluid Mechanics and Transport Processes	3
			NENG 302	Elec., Opt. and Mag. Props. of Nanomaterials	3
			NENG 303	Mechanics of Nanomaterials	3
				Gen Ed Elective	3 or 4
				Unrestricted Elective or NNSE 397	3 or 4
Year Three-Spring					
			NENG 304	Fluid Mechanics and Transport Processes	3
			NENG 4XX	Concentration Elective	3
			NENG 390	Capstone Research I: Intro. and Literature Review	3
				Gen Ed or NENG 4XX Concentration	3 or 4
			MAT 280	Linear Algebra	4
Year Four- Fall					
			NENG 405	Micro and Nano Mat. Processing Technology	4
			NENG 406	Fundamentals of Nanoelectronics	4
			NENG 4XX	Concentration Elective	3
			NENG 4XX	Concentration Elective	3
			NENG 490/491	Capstone Research II: Team Research and Project Review	3
Year Four-Spring					
			NENG 407	Thin Film and Nanomaterials Characterization	4
			NENG 408	Industrial Nanomanufacturing	3
			NENG 4XX	Concentration Elective	3
			NENG 4XX	Concentration Elective	3
			NENG 492/293	Capstone Research III: Team Research and Final Report	3
		67		Total Transfer Applied	67
				Total Remaining at SUNY POLY	61
				Total for Bachelors	128

SUNY Poly Recommends that students take the following engineering