

Onondaga Community College Engineering Science			SUNY Polytechnic Mechanical Engineering		
Course #	Course Title	Credits	Course #	Equivalent Course Title	Credits Accepted
Year One- Fall			Year One- Fall		
ENG 103	Freshman Composition	3	ENG 101	Freshman Composition	3
MAT 161	Calculus I	4	MAT 151	Calculus I	4
CHE 171	General Chemistry	3	CHE 130	General Chemistry	3
CHE 171L	General Chemistry Lab	1	CHE 130L	General Chemistry Lab	1
PHY 105	Physics 1 - Mechanics	4	PHY 201	Calc-Based Physics I	4
Year One-Spring			Year One-Spring		
ENG 104	Freshman Composition and Literature	3	HUM 001	Humanities - General Education Elective	3
MAT 162	Calculus 2	4	MAT 152	Calculus II	4
PHY 205	Physics 2 - E&M	4	PHY 202	Calc-Based Physics II	4
ENS 150	Introduction to Engineering	3	ESC 110	Introduction to Engineering	3
MET 260	Technical Elective - Introduction to CAD	4	ESC 120	Design tools and process	4
Year Two- Fall			Year Two- Fall		
MAT 263	Calculus 3	4	MAT 253	Calculus III (Math Elective)	4
PHY 206	Physics 3 - Thermo and Waves	4	PHY 203	Calc-Based Physics III (Science Elective)	4
ENS 207	Engineering Mechanics - Statics	3	ESC 210	Engineering Mechanics - Statics	3
COM 210	Public Speaking	3	COM 200	Public Speaking (N/A to Program Requirements)	3
ENS 210	Technical Elective - Electrical Circuits Analysis	4	ECE 260	Electrical Circuits (Eng. Elective)	4
Year Two- Spring			Year Two- Spring		
MAT 264	Differential Equations	4	MAT 260	Ordinary Differential Equations and Series Solns	4
ENS 208	Engineering Mechanics - Dynamics	3	ESC 240	Engineering Mechanics - Dynamics (Eng. Elective)	3
CSC 111	Higher Programming Language - Fund of Computing	4	CS 108	Introduction to Programming (N/A to Program Requirements)	4
	General Education	3		General Education	3
ENS 212	Technical Elective - Mechanics of Materials	4	ESC 230	Strength of Materials	4
Year Three-Fall			Year Three-Fall		
			MAT 450 OR MAT 370 OR MAT 280	Partial Differential Equations OR Applied Probability OR Linear Algebra	4
			ME 310	Design and Manufacturability	3
				Gen Ed. Elective	4
			ESC 370	Design of Engineering Experiments	3
			ME 340	Engineering Thermodynamics II	3
Year Three-Spring			Year Three-Spring		
			MAT 460	Numerical Differential Equations	4
			ME 390	Machine Design	3
			ME 320	Fluid Mechanics	3
				Upper Division Writing Course	4
				Gen. Ed. Elective	4
Year Four- Fall			Year Four- Fall		
			ME 480	Capstone Design I	3
			ME 446	Modeling and Control of Dynamic Systems	3
			ME 410	Heat Transfer	3
				Mechanical Engineering Elective	3
				Mechanical Engineering Elective	3
Year Four-Spring			Year Four-Spring		
			ME 482	Capstone Design II	3
				Gen Ed. Elective	3
				Mechanical Engineering Elective	3
		69		Total Transfer Applied	69
				Total Remaining at SUNY POLY	59
				Total for Bachelors	128