

BS - PHYSICS NJCU/BS Civil Engineering NJIT

	NJCU Course Number	Description	Credits	NJIT Equivalent Course
First Year				
First Semester				
	Phys 140	Physics for Engineering I, Lecture	3	Phys 111
	Phys 1140	Physics for Engineering I, Recitation and Laboratory	1	Phys 111A
	Engl 101	English Composition I	4	HUM 101
	Math 192	Calculus and Analytic Geometry I	4	Math 111
	FYE XXXX	First Year Experience	3	Fresh. Seminar
			15	
Second Semester				
	Chem 105	General Chemistry I, Lecture	3	Chem 125
	Chem 1105	General Chemistry I, Recitation and Laboratory	2	
	Engl 102	English Composition II	4	HUM 102
	Math 193	Calculus and Analytic Geometry II	4	Math 112
	Phys 141	Physics for Engineering II, Lecture	3	Phys 121
	Phys 1141	Physics for Engineering II, Recitation and Laboratory	1	Phys 121A
			17	
Second Year				
First Semester				
	Chem 106	General Chemistry II, Lecture	3	Chem 126
	Chem 1106	General Chemistry II, Recitation and Laboratory	2	
	Math 292	Calculus and Analytic Geometry III	4	Math 213
	Phys 230	Physics III	3	Phys 234
	Phys 1230	Physics III, Recitation and Laboratory	1	
	Gen Ed		3	
			16	
Second Semester				
	Phys 321	Theory and Applications of E&M	3	Phys 432
	Math 311	Differential Equations	4	Math 222
	Econ 208	Principles of Economics: Micro	3	Econ 201
	FED 101	Fundamentals of Engineering Design	1	Taken at NJIT
	Mech 235	Statics	3	Taken at NJIT
	CIS 101	Computer Programming and Problem Solving	3	Taken at NJIT
			17	
Third Year				
First Semester				
	Phys 301	Thermodynamics and Kinetic Theory	3	Phys 335
	Phys 410	Classical Mechanics	4	Phys 430
	CE 200	Surveying	3	Taken at NJIT
	CE 200A	Surveying Laboratory		
	Math 279	Statistics and Probability for Engineers	3	Taken at NJIT
	Gen Ed		3	
			16	
Second Semester				
	Phys 405	Introduction to Quantum Mechanics	3	
	CE210	Construction Materials and Procedures	3	Taken at NJIT
	CE 260	Civil Engineering Methods	3	Taken at NJIT
	Mech 237	Strength of Materials	3	Taken at NJIT
	Phys 450	Advanced Physics Laboratory (1-4-3)	4	Taken at NJIT - Phys 241
			16	
	NJIT Course Number	Description	Credits	NJCU Equivalent Course
Fourth Year				
First Semester				
	CE 320	Fluid Mechanics (4-0-4)		
	CE 320A	Hydraulics Laboratory (0-3-1)		
	CE 321	Water Resources Engineering (3-0-3)		
	CE 332	Structural Analysis (2-0-2)		

	Mech 236	Dynamics (2-0-2)		
	EnE 262	Introduction to Environmental Engineering (3-1-3)		
Second Semester				
	CE 333	Reinforced Concrete Design (3-0-3)		
	CE 341	Soil Mechanics (3-0-3)		
	CE 341A	Soil Mechanics Laboratory (0-3-1)		
	CE 350	Transportation Engineering (3-0-3)		
	Elective	Technical (3-0-3)		
Fifth Year				
First Semester				
	CE 431	Construction Materials Lab (0-3-1)		
	CE 432	Steel Design (3-0-3)		
	CE 443	Foundation Design (3-0-3)		
	CE 494	Civil Engineering Design I (3-0-3)		
	Elective	CE Elective (3-0-3)		
	HSS Elective	Communications Elective 300 Level (3-0-3)		
Second Semester				
	CE 495	Civil Engineering Design II (3-0-3)		
	Elective	Science Elective (3-0-3)		
	Elective	CE Elective (3-0-3)		
	Elective	Management: GUR (3-0-3)		
	Elective	Capstone Seminar 400 Level: GUR (3-0-3)		