

Required for USU Major	Articulation of Pre-engineering Courses between Idaho State University and Utah State University current as of: 12/16/2015				
B I E N C I V I L E N V I R C O M P E L E C T M E C H					

						USU		ISU		
						Course	Cr	Course Title	Course	Cr
X						BENG 1880	3	Quantitative Biological Systems		
X						BENG 2330	3	Properties of Biomaterials		
X		X				BENG 2400	3	Biological Thermodynamics	ME 3307	3
	X	X				BIOL 1010	3	Biology and the Citizen	BIOL 1100	4
X						BIOL 1610	4	Biology I	BIOL 1101 + 1101L	4
X						BIOL 3300	4	General Microbiology		
	X	X				CEE 1880	1	CEE Orientation & Computer Applications		
	X	X				CEE 2240	3	Engineering Surveying	CE 3301	3
X	X	X				CEE 2870	2	Intro to Programming	ME 1165	2
		X				CEE 2890	1	Sophomore Seminar - Environmental		
X	X	X			X	CHEM 1210+1215	4+1	Principles of Chemistry I + Lab I	CHEM1111+1111L	4+1
		X				CHEM 1220+1225	4+1	Principles of Chemistry II +Lab II	CHEM1112+1112L	4+1
X						CHEM 2300	3	Principles of Organic Chemistry	CHEM 3301	3
X						CHEM 2315	1	Organic Chemistry Lab I	CHEM 3303	1
X						CHEM 3700	3	Introduction to Biochemistry	BIOL 4445	3
X						CHEM 3710	1	Introduction to Biochemistry Lab		
			X	X	X ²	CS 1400	3	Intro to Computer Science - CS 1	CS 1181 ^{1,2}	3
					X	CS 1405	1	Intro to Computer Science - CS 1 Lab		
			X	X		CS 1410	3	Intro to Computer Science - CS 2	CS 1182 ¹	3
			X			CS 2420	3	Algorithms & Data Structures - CS 3	CS 3385 ¹	3
			X			CS 3100	3	OS + Concurrency		
			X	X		ECE 2250	3	Electrical Circuits I	EE 3340+3342	3+1
			X	X		ECE 2290	3	Electrical Circuits II		
			X	X		ECE 2700	4	Digital Circuits	EE 2274 + 2275	3+1
X	X	X	X	X	X	ENGL 1010	3	Introduction to Writing	ENGL 1101	3
X	X	X	X	X	X	ENGL 2010	3	Intermediate Writing	ENGL 1102	3
X	X	X			X	ENGR 2010	3	Engineering Mechanics - Statics	ME 2210	3
X	X	X			X	ENGR 2030	3	Engineering Mechanics - Dynamics	ME 2220	3
	X				X	ENGR 2140	3	Strength of Materials	ME 3350	3
X	X		X	X		ENGR 2450	3	Engineering Numerical Methods	ENGR 3364	3
X	X				X	ENGR 2210	3	Fundamental Electronics	EE 2240	3
X	X	X				ENGR 2270	2	Computer Engineering Drafting	ME 1105	2
	X					GEO 1110/1115	3+1	Dynamic Earth	GEOL1101+1101L	3+1
					X	MAE 1200	2	Engineering Graphics	ME 1105	2
					X	MAE 2160	3	Material Science	ENGR 2223	3
					X	MAE 2165	1	Material Science Lab	ENGR 2224	1
	X				X	MAE 2300	3	Thermodynamics I	ME 3307	3
X	X	X	X	X	X	MATH 1210	4	Calculus I	MATH 1170	4
X	X	X	X	X	X	MATH 1220	4	Calculus II	MATH 1175 ¹	4
	X			X	X	MATH 2210	3	Multivariable Calculus	MATH 2275 ¹	4
X	X	X			X	MATH 2250	4	Linear Algebra & Differential Equations	MATH 2240 + 3360	3+3
			X	X		MATH 2270	3	Linear Algebra	MATH2240	3
			X	X		MATH 2280	3	Ordinary Differential Equations	MATH 3360	3
			X			MATH 3310	3	Discrete Mathematics	MATH 2287	3
			X	X		MATH 5710	3	Introduction to Probability		
X	X	X	X	X	X	PHYS 2210 + 2215	4+1	General Physics - Science I	PHYS 2211 + 2213	4+1
			X	X	X	PHYS 2220 + 2225	4+1	General Physics - Science II	PHYS 2212 + 2214	4+1

¹Series should be completed at one school isu.edu

²Mechanical Engineering requires C++. C or C# can be acceptable.