

Required for USU Major	Articulation of Pre-engineering Courses between Brigham Young 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							BYU		
					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	MeEn 321	3
	X	X			BIOL 1010	3	Biology and the Citizen		
X					BIOL 1610	4	Biology I		
X					BIOL 3300	4	General Microbiology	BIO 130	4
	X	X			CEE 1880	1	CEE Orientation & Computer Applications	CEEN 100a+100b	1
	X	X			CEE 2240	3	Engineering Surveying	CEEN 113	3
X	X	X			CEE 2870	2	Intro to Programming	CEEN 270	3
		X			CEE 2890	1	Sophomore Seminar - Environmental		
X	X	X		X	CHEM 1210+1215	4+1	Principles of Chemistry I + Lab I	Chem 105 + 107	4+1
		X			CHEM 1220+1225	4+1	Principles of Chemistry II + Lab II	Chem 106	4
X					CHEM 2300	3	Principles of Organic Chemistry	Chem 351	3
X					CHEM 2315	1	Organic Chemistry Lab I	Chem 353 or 354	1
X					CHEM 3700	3	Introduction to Biochemistry	Chem 481	3
X					CHEM 3710	1	Introduction to Biochemistry Lab		
			X	X	CS 1400	3	Intro to Computer Science - CS 1	CS 142 ^{1,2}	3
				X	CS 1405	1	Intro to Computer Science - CS 1 Lab	CS 142 ¹	3
			X	X	CS 1410	3	Intro to Computer Science - CS 2	CS 235 ¹	3
			X		CS 2420	3	Algorithms & Data Structures - CS 3	CS 240 ¹	4
			X		CS 3100	3	OS + Concurrency	CS 345	3
			X	X	ECE 2250	3	Electrical Circuits I	ECEN 240	4
			X	X	ECE 2290	3	Electrical Circuits II	ECEN 240	4
			X	X	ECE 2700	4	Digital Circuits	ECEN 220	3
X	X	X	X	X	ENGL 1010	3	Introduction to Writing	Engl 115	3
X	X	X	X	X	ENGL 2010	3	Intermediate Writing	Engl 316	3
X	X	X		X	ENGR 2010	3	Engineering Mechanics - Statics	CEEN 103	3
X	X	X		X	ENGR 2030	3	Engineering Mechanics - Dynamics	CEEN 204	3
	X			X	ENGR 2140	3	Strength of Materials	CEEN 203	3
X	X		X	X	ENGR 2450	3	Engineering Numerical Methods	Math 410	3
X	X			X	ENGR 2210	3	Fundamental Electronics	ECEN 301	3
X	X	X			ETE 2270	2	Computer Engineering Drafting	CEEN 112	3
	X				GEO 1110/1115	3+1	Dynamic Earth	Geol 111	4
				X	MAE 1200	2	Engineering Graphics	MeEn 272	3
				X	MAE 2160	3	Material Science	MeEn 250	3
				X	MAE 2165	1	Material Science Lab		
	X			X	MAE 2300	3	Thermodynamics I	MeEn 321	3
X	X	X	X	X	MATH 1210	4	Calculus I	Math 112	4
X	X	X	X	X	MATH 1220	4	Calculus II	Math 113 ¹	4
	X			X	MATH 2210	3	Multivariable Calculus	Math 314 ¹	3
X	X	X		X	MATH 2250	4	Linear Algebra & Differential Equations	Math 313+334	3+3
			X	X	MATH 2270	3	Linear Algebra	Math 313	3
			X	X	MATH 2280	3	Ordinary Differential Equations	Math 334	3
			X		MATH 3310	3	Discrete Mathematics		
			X	X	MATH 5710	3	Introduction to Probability	Math 431	3
X	X	X	X	X	PHYS 2210 + 2215	4+1	General Physics - Science I	Phscs 121+123	3+3
			X	X	PHYS 2220 + 2225	4+1	General Physics - Science II	Phscs 220+123	3+3

¹Series should be completed at one school byu.edu
²Mechanical Engineering requires C++. C or C# can be acceptable.