

B.S. in Engineering 2020-21

	Course	Title	Cr.	Sched	Prerequisites
CCET GE Courses	Quantitative Lit.	*MATH 1210 - Calculus I	4	F/S/Su	MATH 1050 & 1060
	PS GE	PHYS 2210/15	4/1	F/S/Su	MATH 1210, or ACT 26+
Other GE Courses are required to graduate with a Bachelor's Degree from SUU. The above-listed courses count for both GE and major requirements.					
Engr Core	ENGR 1000	Engineering Success Skills	1	F/S	
	ENGR 1050	Introduction to Engineering Design	1	F/S/Su	MATH 1010 or higher
	ENGR 2010	Statics	3	F/S/Su	MATH 1210
	ENGR 2030	Dynamics	3	F/S/Su	ENGR 2010 & PHYS 2210
	ENGR 2140	Strength of Materials	3	F/S/Su	ENGR 2010 & MATH 1220
	ENGR 2145	Strength of Materials Lab	1	F/S/Su	ENGL 2010
	ENGR 2250	Electric Circuits	3	F/S/Su	PHYS 2220/25, MATH 2250§
	ENGR 2255	Electric Circuits Lab	1	F/S/Su	ENGL 2010
	ENGR 3000	Thermodynamics	3	F	PHYS 2220/25
	ENGR 3030	Technical Project Management	3	S	ENGR 1000 or ENGR 2145
	ENGR 3050	Fluid Mechanics	3	S/Su	MATH 1220, PHYS 2210
	ENGR 3055	Fluid Mechanics Lab	1	S/Su	CoReq ENGR 3050
	ENGR 4025	Engineering Capstone Design Lab I	3	F	ENGR 3030
	ENGR 4085	Engineering Capstone Design Lab II	3	S	ENGR 4025
	CHEM 1210/15	Principles of Chemistry/Lab	4/1	F/S/Su	MATH 1050 or higher
	MATH 1040	Statistical Inference	4	F/S/Su	MATH 1010 or higher
	MATH 1220	Calculus II	4	F/S/Su	MATH 1210
	MATH 2250	Linear Algebra & Differential Equations	4	F/S	MATH 1220
	PHYS 2210/15	Physics for Scientists & Engineers I	4	F/S	MATH 1210 CoReq MATH 1220
PHYS 2220/25	Physics for Scientists & Engineers II	4	F/S	PHYS 2210 & MATH 1220	
Select one	COMM 4240	Technical Writing	3	F/S/Su	None
	ENGL 3120	Grant & Technical Writing		S	ENGL 2010

*If not ready for MATH 1210 students will need to take the prerequisite classes of MATH 1050 and MATH 1060 before taking MATH 1210 or score a 75 on ALEKS Math Placement Exam via SUU Testing Center.

§MATH 2250 may be taken Concurrently with ENGR 2250

Choose one of the following 2 Concentrations: Civil or Electrical

AREAS OF CONCENTRATION - Select one of the following					
CIVIL CONCENTRATION					
Civil Engineering Concentration	CCET 1040	Intro to Residential Arch using AutoCAD	3	F/S	
	CCET 3670	Civil Design	3	S	CCET 1010 or 1040
	ENGR 4050	Structural Analysis	3	F	ENGR 2140/45
	ENGR 4100	Desig of Reinforced Concrete Structures	3	S	ENGR 4050
	GEOG 3550/55	Principles of GIS/Lab	3/2	F	
	Select one of the following CM electives to complete the Civil Concentration				
	CM 2040	Construction Materials & Testing	3	S	
	CM 3240	Estimating & Bidding	3	F	
	CM 3880	Scheduling & Ethics	3	S	Advisor needs to override
	CM 4550	Construction Safety Administration	3	F	Advisor needs to override
optional CM will need to be subbed	CM 4600	Heavy Civil Const Design, Methods & Equipment	3	F	CM 3270 & ENGR 2000, or CCET 3670, or ENGR 2140
Select 9 credits	Engineering Electives (9 Credits)				
	ENGR 3010	Material Science Engineering	3	F	CHEM 1210 & MATH 1210
	ENGR 3700	Machine Design	3	F	ENGR 1030,2030, 2140/45 & *3010
	ENGR 4000/05	Mechatronics/Lab	3/1	S	ENGR 2030, 4030/35
	ENGR 4010/15	Heat Transfer/Lab	3/1	F	ENGR 3050 & MATH 2250
	ENGR 4030/35	Electronics/Lab	3/1	F/Su	ENGR 2250/55
	ENGR 4060/65	Manufacturing/Lab	2/1	S	ENGR 3010
	ENGR 4300	Vibrations	3	F	ENGR 2030, 2140, 2170 & MATH 2250
	ENGR 4710/15	Instrumentation & Measurements/Lab	3/1	S	ENGR 2030, 2140, 2250, 3000
ENGR 4900	Special Topics	1-3	as needed		
ELECTRICAL CONCENTRATION					
Electrical Concentration	ENGR 1030	CAD & Analysis using SolidWorks	3	F/S/Su	
	ENGR 2170	Programming for Engineers	3	F/S/Su	MATH 1210
	ENGR 3010	Material Science Engineering	3	F	CHEM 1210 & MATH 1210
	ENGR 4000/05	Mechatronics/Lab	3/1	S	ENGR 2030, 4030/35
	ENGR 4030/35	Electronics/Lab	3/1	F/Su	ENGR 2250/55
	ENGR 4060/65	Manufacturing/Lab	2/1	F	ENGR 3010
	ENGR 4600	Electromagnetics	3	S	PHYS 2220, MATH 2210, 2250, ENGR 2250 & 2170
	MATH 2210	Calculus III	4	F/S/Su	MATH 1220
Free Upper Division Electives		3			

* ENGR 3010 can be taken concurrently with ENGR 3700