

## B.S. in Mechanical Engineering 2022 - 23

	Course	Title	Cr.	When	Prerequisites
<b>GE courses are required to graduate with a Bachelor's Degree from SUU.</b>					
Foundation Course: Select One	ENGR 1010	Engineering in the 21st Century	3	F/S	
	ENGR 1050	Intro to Engineering Design	1	F/S	MATH 1010 or higher (can take 1050+ concurrently)
Core Requirements	CCET 2690	Fundamentals of Manufacturing	3	F	CCET 1030 or CCET 2620 or ENGR 1030
	CHEM 1210/15	Principles of Chemistry	4/1	F/S/Su	MATH 1050 or higher, ACT 26
	EE 2250/55	Electric Circuits/Lab	3/1	F/S/Su	MATH 2250*, PHYS 2220/25
	ENGR 1030	Computer-Aided Design - SolidWorks	3	F/S/Su	
	ENGR 2010	Statics	3	F/S/Su	MATH 1210
	ENGR 2140/45	Strength of Materials/Lab	3/1	F/S/Su	ENGR 2010, MATH 1220, ENGL 2010
	ENGR 2170	Programming for Engineers	3	F/S/Su	MATH 1210
	MATH 1210	Calculus I	4	F/S/Su	MATH 1050, 1060, ALEKS 75 ACT 26
	MATH 1220	Calculus II	4	F/S/Su	MATH 1210
	MATH 2210	Calculus III	4	F/S/Su	MATH 1220
	MATH 2250	Linear Algebra & Differential Equations	4	F/S	MATH 1220
	ME 2030	Dynamics	3	F/S/Su	ENGR 2010, PHYS 2210
	ME 2130	Manufacturing	2	S	
	ME 3030	Dynamic Systems Modeling	3	F	ENGR 2170, MATH 2250, ME 2030
	ME 3055	Engineering Design	3	S	ENGR 1030, ME 2030, ME 2130
	ME 3100	Materials Science	3	F	CHEM 1210/15, MATH 1210
	ME 3120	Machine Analysis	3	F	ENGR 1030, 2140/45, ME 2030, ME 3100*
	ME 3200	Thermodynamics	3	S	PHYS 2220
	ME 3300/05	Fluid Mechanics/Lab	3/1	S/Su	MATH 1220, PHYS 2210
	ME 3320/25	Mechatronics/Lab	3/1	S	ME 2030
ME 4100/05	Instrumentation & Measurements/Lab	3/1	S	EE 2250/55, ENGR 2140/45, ME 2030, ME 3200	
ME 4200/05	Heat Transfer/Lab	3/1	F	MATH 2250, ME 3300/05	
ME 4055	Capstone Design	3	F/S	ME 3055	
PHYS 2210/15	Physics for Scientists & Engineers I	4/1	F/S/Su	MATH 1210	
PHYS 2220/25	Physics for Scientists & Engineers II	4/1	F/S/Su	PHYS 2210/15, MATH 1220	
Choose One	COMM 4240	Technical Writing	3	F/S/Su	
	ENGL 3120	Grant & Technical Writing		S	ENGL 2010
Mechanical Engineering Electives (Select a minimum of 12 credits)	CCET 4610	Advanced Design and Solid Modeling	3	S	CCET 1030 or 1040 or 2620 or 3630 or 3690
	EE 3100	Introduction to Signal Processing	3	F	ENGR 2170 & EE 2250
	EE 3250	AC Circuits	-	-	coming soon....
	EE 4030/35	Electronics/Lab	3/1	F	EE 2250/55
	EE 4100	Power Electronics	3	S as needed	EE 3100 & EE 4030
	EE 4600	Electromagnetics	3	S	PHYS 2220, MATH 2210, 2250, EE 2250, ENGR 2170
	CE 3100	Structural Analysis	3	F	ENGR 2140/45
	ENGR 4900	Special Topics	1-3	as needed	
	MATH 3250	Complex Variables	3	S-odd	MATH 2210
	MATH 3600	Numerical Analysis	3	S-even	MATH 2250 or 2280
	MATH 3700	Probability & Statistics	4	F/S/Su	MATH 1220
	MATH 3800	Partial Differential Equations	3	F-odd	MATH 2210 and 2250 or 2280
	ME 4300	Vibrations	3	F	ENGR 2140, 2170, ME 2030, MATH 2250 or 2280
	ME 4400	Introduction to Aeronautics	3	F-even	ME 2030, CS 1040 or ENGR 2170
	ME 4420	Aerodynamics	S	F-even	ENGR 2170 and ME 2030
	ME 4440	Aerospace Propulsion	3	S-even	ENGR 2170 and ME 2030
	ME 4500	Thermal Design	3	S-even	MATH 2250 & ME 3300/05, ME 4200/05
	PHYS 3310	Quantum Physics I	3	F	PHYS 2210/15, 2220/25
PHYS 3320	Quantum Physics II	3	S	PHYS 3310	

\* can be taken concurrently