PROJECTED ME COURSE OFFERINGS

Course Details											
COURSE NUMBER	COURSE NAME (Core courses shown in red color)	2019-20		2020-21		2021-22		2022-23		2023-24	
		F	S	F	S	F	S	F	S	F	S
	DESIGN										
ME 401	Applied Stress Analysis I	O		O		O		O		O	
ME 408	Intermediate Vibration Theory		O		O		O		O		O
ME 411	Mechatronics I	O		O		O		O		O	
ME 412	Dynamic System Analysis I	O		O		O		O		O	
ME 413	Dynamics of Mechanical Systems	O		O		O		O		O	
ME 416	Railroad Vehicle Dynamics				O				O		
ME 449 (ECE)	Microdevices and Micromachining		outside		outside		outside		outside		outside
ME 502	Stress Analysis II		X				X				X
ME 504	Multibody Systems I		X				X				X
ME 511	Mechatronics II		X		X		X		X		X
ME 512	Automatic Control										
ME 540	Micro/Nanosystem Design				X				X		
ME 541 (ECE)	Microelectronic Fabrication		outside		outside		outside		outside		outside
ME 547	Advanced CAD		X		X		X		X		X
ME 594	Advanced Topics in Solid Mechanics	X				X				X	
ME 594	Motor Control				X				X		
ME 594	Low-Dimensional Nanomaterials			X				X			
ME 594	Applications of Engineered Thin Films and Interfaces			X				X			
ME 594 (BioE)	Dynamic Elastography	outside		outside		outside		outside		outside	
ME 594 (IE)	3D Printing and Additive Manuf.		X		X		X		X		X
ME 594 (IE)	Virtual Surgical Simulation										
ME594	Characterization of Nano Devices & Systems				X				X		
	FLUID/THERMAL										
IE 442	Design and Analysis of Experiments		O		O		O		O		O
ME 494	Math I	O		O		O		O		O	
ME 594	Math II				X				X		
ME 419	Compressible Flow Theory			O				O			
ME 415	Propulsion Theory				O				O		
ME 417	Intermediate Fluid Mechanics		O		O		O		O		O
ME 421	Intermediate Heat Transfer	O		O		O		O		O	
ME 422	HVAC (ENER)		O		O		O		O		O
ME 424	Energy Management (ENER)	O		O		O		O		O	
ME 450	Air Pollution (ENER)		O		O		O		O		O
ME 494	Synth. Char. & Prop. of Nanomaterials										
ME 501	Advanced Thermodynamics				X				X		
ME 515	Micro/Nano Transport Phenomena	X				X				X	
ME 518	Fundamentals of Turbulence	X				X				X	
ME 521	Conduction and Radiation		X				X				X
ME 522	Convective Heat Transfer				X				X		
ME 525	Multi-Phase Heat Transfer		X				X				X
ME 528	Numerical Heat Transfer			X				X			
ME 536	Chemically Reacting Flows	X				X				X	
ME 594	Computational Compressible Flow	X				X				X	
ME 594	Energy Storage		X				X				X
ME 594	Introduction to Microfluids (and Biosensors)		X				X				X
ME 594	Micro/ Nano Heat Transfer		X				X				X
	MATH										
IE 442	Design and Analysis of Experiments		O		O		O		O		O
ME 494	Math I	O		O		O		O		O	
ME 594	Math II				X				X		

Notes **MSME students who do not have a BSME must take: two of ME401, ME408, and ME413 (can use 502 for 401); two of ME415, ME417, ME419, ME421; and one ME math class.**