

Intake:		2020 onwards		Specialization:		Mechanical Engineering				
Details of the Curriculum				Stream:		Mechatronic Systems Engineering				
Module Code	Module Name	Category C/E/O	Time allocation [Hours/Week]		Credits offered		Norm		Evaluation %	
			Lecture	Lab / Tute	GPA	NGPA	GPA	NGPA	CA	WE
Semester 1			Specialization requirement				15.0			
ME1033	Mechanics	C	2	2/4	2.0	-	15.0	0.0	20	80
CE1023	Fluid Mechanics	C	2	2/4	2.0	-			20	80
CS1033	Programming Fundamentals	C	2	2	3.0	-			20	80
EE1040	Electrical Fundamentals	C	2	2/4	2.0	-			20	80
EL1030	Language Skills Enhancement [S1 & S2]	C	-	2	1.0	-			100	-
MA1014	Mathematics	C	5/2	1	3.0	-			20	80
MT1023	Properties of Materials	C	2	2/4	2.0	-			20	80
			Total		15.0	0.0	15.0	0.0		
Semester 2			Specialization requirement				21.0			
ME1101	Mechanics of Materials I	C	2	2	3.0	-	21.0	0.0	30	70
ME1071	Manufacturing Technology	C	1	4	3.0	-			70	30
ME1120	Engineering Graphics and Machine Drawing	C	1	4	3.0	-			100	-
ME1053	Fundamentals of Engineering Thermodynamics	C	5/2	2/2	3.0	-			30	70
ME1110	Mechatronic Systems Engineering	C	1	4	3.0	-			50	50
MA1024	Methods of Mathematics	C	5/2	1	3.0	-			30	70
MT1814	Engineering Materials	C	3/2	2/2	2.0	-			40	60
EL1030	Language Skills Enhancement [S1 & S2]	C	-	2	1.0	-	100	-		
			Total		21.0	0.0	21.0	0.0		
Semester 3			Specialization requirement				20.0			
ME2093	Mechanics of Machines I	C	2	2	3.0	-	20	0.0	40	60
ME2061	Mechanics of Materials II	C	2	2	3.0	-			40	60
ME2024	Manufacturing Processes	C	3	2	4.0	-			40	60
MA2014	Differential Equations	C	2	-	2.0	-			30	70
MA2024	Calculus	C	2	-	2.0	-			30	70
EE2804	Applied Electricity	C	2	2	3.0	-			40	60
ME2250	Instrumentation System Design	C	2	2	3.0	-			40	60
ME2161	Fundamentals of Automotive Engineering	E	5/2	2/2	3.0	-	40	60		
CS2883	Object Oriented Programming for Mechanical Engineers	E	2	2	3.0	-	100	-		
			Total		26.0	0	20	0		
Semester 4			Specialization requirement				22.0			
ME2051	Mechanics of Machines II	C	2	2	3.0	-	22.0	0.0	40	60
ME2081	Design of Machine Elements	C	2	2	3.0	-			40	60
ME2113	Fluid Dynamics	C	5/2	2/2	3.0	-			30	70
ME2033	Thermodynamics of Heat and Work Transfer Devices	C	7/2	2/2	4.0	-			30	70
MA3014	Applied Statistics	C	2	-	2.0	-			30	70
ME2281	Sensors / Actuators and Intelligent Systems	C	2	2	3.0	-			40	60
ME2171	Manufacturing Engineering	C	2	4	4.0	-			40	60
			Total		22.0	0.0	22.0	0.0		
Semester 5			Specialization requirement				23.0			
ME3261	Mechatronic System Design Project	C	-	8	4.0	-	23.0	0.0	100	-
ME2261	Embedded Systems	C	2	2	3.0	-			50	50
ME3023	Industrial Fluid Flow Systems	C	7/2	2/2	4.0	-			40	60
ME3241	Control Systems	C	2	2	3.0	-			40	60
ME3043	Production and Operations Management	C	3	2	4.0	-			40	60
MA3024	Numerical Methods	C	2	-	2.0	-			30	70
MA3030	Operational Research	C	2	-	2.0	-			30	70
ME3880	Engineer and Society [S5 & S6]	C	-	2	1.0	-	80	20		
			Total		23.0	0.0	23.0	0.0		
Industrial Training			Specialization requirement				6.0			
ME3993	Industrial Training	C	-	-	-	6.0	0.0	6.0	100	-
			Total		0.0	6.0	0	6		

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Semester 6				Specialization requirement				10.0		
ME3902	Technical Communication for Engineering	C	-	4	2.0	-	8.0	0.0	100	-
ME3330	Mechanical Engineering Project Formulation	C	1	2	2.0	-			100	-
ME3920	Social Community Project - Mechatronics	C	1	2	2.0	-			100	-
ME3880	Engineer and Society [S5 & S6]	C	1	2	2.0	-			100	-
HM-1	Humanities Elective	E			2.0	-			2.0	0.0
Total				10.0	0.0	10.0	0.0			
Semester 7				Specialization requirement				12.0		
ME4203	Final Year Project [S7 & S8]	C	1	4	3.0	-	12.0	0.0	100	-
MN3043	Business Economics and Financial Accounting	C	3	-	3.0	-			30	70
ME4091	Industrial Automation and Process Control	C	1	4	3.0	-			50	50
ME4701	Micro/Nano Systems Engineering	C	2	2	3.0	-			50	50
ME4443	Heat Transfer	E	5/2	2/2	3.0	-			30	70
ME4243	Energy Systems Engineering	E	5/2	2/2	3.0	-			30	70
ME4453	Industrial Project Management	E	2	2	3.0	-			40	60
ME4533	Industrial Ergonomics	E	2	2	3.0	-			40	60
ME4333	Computer Aided Design & Manufacture	E	2	2	3.0	-			40	60
ME4513	Industrial Products and Machinery Development	E	1	4	3.0	-			70	30
ME4830	Biomechanics	E	2	2	3.0	-	40	60		
ME4373	Aerodynamics	E	7/2	2/2	4.0	-	40	60		
ME4433	Computational Fluid Dynamics	E	5/2	2/2	3.0	-	50	50		
Total				40.0	0.0	12.0	0.0			
Semester 8				Specialization requirement				15.0		
ME4203	Final Year Project [S7 & S8]	C	1	8	5.0	-	15.0	0.0	100	-
ME4191	Robotics and Autonomous Systems	C	3	2	4.0	-			50	50
ME4740	Advanced Topics in Mechatronic Systems Engineering	C	1	4	3.0	-			60	40
ME4181	Intelligent Systems	C	5/2	2/2	3.0	-			40	60
ME4393	Advanced Manufacturing Engineering	E	2	2	3.0	-			40	60
ME4473	Computer Aided Engineering	E	2	4	4.0	-			60	40
ME4423	Energy Conservation	E	5/2	2/2	3.0	-			30	70
ME4383	Refrigeration and Air Conditioning	E	7/2	2/2	4.0	-			40	60
ME4673	Control Systems Design	E	5/2	2/2	3.0	-			50	50
ME4730	Engineering Decision Making and Risk Assessment	E	5/2	2/2	3.0	-			60	40
ME4073	Industrial Engineering	E	3	2	4.0	-			40	60
ME4211	Auditory and Visual Comfort	E	5/2	2/2	3.0	-			30	70
ME4663	Mould Design	E	2	2	3.0	-			40	60
ME4633	Automotive Engineering	E	7/2	2/2	4.0	-			40	60
Total				49	0	15.0			0.0	
Grand Total				206.0	6.0	138.0	6.0			

Total credit requirement for the Specialization		144.0
Faculty/Specialization Electives beyond the specialization requirements [refer faculty electives table]*		6.0
TOTAL CREDIT REQUIREMENT FOR GRADUATION		150.0

Service modules									
Code	Module Name	Semester	Time allocation [Hours/Week]		Credits		Offered to	Evaluation %	
			Lecture	Lab / Tute	GPA	NGPA		CA	WE
	Not offered								