DEPARTMENT OF MECHANICAL ENGINEERING																			
S.No	**Course Code**	**Course Name**	**L-T-P**	**Cr**	**Pre-Req.**	**PO**												**PSO**	
						1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**1**	**2**
I	**HUMANITIES & SOCIAL SCIENCES**																		
1	15EN1101	Rudiments of Communication Skills	2-0-0	2	NIL										1				
2	15EN2103	Professional Communication Skills	0-0-4	2	NIL										1				
3	15EN1202	Interpersonal Communication Skills	2-0-0	2	NIL										1				
4	15EN3206	Corporate Communication Skills	0-0-4	2	NIL								1		1				
5	16MB4057	Economics for Engineers	2-0-0	2	NIL											1			
6	16GN1001	Ecology And Environment	2-0-0	2	NIL						2						1		
7	15GN1002	Human Values and Professional Ethics	2-0-0	2	NIL								2						
II	**BASIC SCIENCES**																		
1	15MT1001	Single Variable Calculus and Matrix Algebra	2-2-2	4	NIL	2													
2	15MT1203	Multivariate Calculus	2-2-2	4	NIL		2			2									
3	15CY1001	Engineering Chemistry	2-2-2	4	NIL			1	1										

4	16MT2002	Complex Variables And Transforms	3-0-0	3	NIL	1													
5	16MT2104	Probability and Numerical Methods	3-1-0	4	NIL	1													
III	**ENGINEERING SCIENCES**																		
1	15PH1001	Engineering Materials	2-2-2	4	NIL	1			2										
2	15CS1101	C Programming & Data Structures -I	2-4-2	5	NIL	2	2			2									
3	15CS1201	C Programming & Data Structures -II	2-4-2	5	NIL	2	2			2									
4	15GN1004	Introduction to Engineering	2-0-2	3	NIL						2		2						
5	15ME1001	Mechanics	2-2-2	4	NIL	2	1												
6	15ME1002	Engineering Graphics	0-0-6	3	NIL					2							2		
7	15GN1003	Measurements	0-0-4	2	NIL	2			2										
8	16ME1003	Thermodynamics	3-0-2	4	NIL	1	2		2									2	2
9	15EE2202	Basics of Electrical and Electronics Engineering	2-2-2	4	NIL	2	2												
IV	**PROFESSIONAL CORE COURSES**																		
1	16ME2106	Strength of Materials	3-0-2	4	15ME1001		2		2									2	2
2	16ME2104	Fluid Mechanics & Hydraulic Machines	3-0-2	4	NIL	2	2		2									2	2
3	16ME2207	Machine Drawing	0-0-4	2	15ME1002	2				2								2	2

4	16ME2105	Metallurgy	3-0-2	4	15PH1001	1			1									1	1
5	16ME2108	Manufacturing Technology	3-0-2	4	NIL		1		2									2	2
6	16ME2210	Kinematics of Machines	3-0-2	4	15ME1001	2	2		2									2	2
7	16ME2211	Metal Cutting and Metal Forming	3-0-0	3	NIL		1											1	1
8	16ME2212	Vapour Power Systems	3-0-2	4	16ME1003	1	2	1	2									2	2
9	16ME3114	Gas Power Systems	3-0-2	4	16ME1003	2	2		2									2	2
10	16ME3115	Dynamics of Machines	3-0-2	4	16ME2210	2	2		2	2								2	2
11	16ME3116	Machine Tools & Metrology	3-0-2	4	NIL		1		2									2	2
12	16ME3117	Internal Combustion Engines	3-0-2	4	16ME1003	2	2		2									2	2
13	16ME3118	Operations Research	3-2-0	4	NIL		1			2						2		2	2
14	16ME3219	Robotics	3-0-0	3	16ME2210	1		2										2	2
15	16ME3220	Heat Transfer	3-0-2	4	16ME2104	2	2		2									2	2
16	16ME3221	Design of Machine Elements	3-2-0	4	16ME2106	2		3	2	2								2	3
17	16ME3222	Computer Integrated Manufacturing	3-0-2	4	16ME3116		1		2									2	2
18	16ME3223	Production and Operations Management	3-2-0	4	NIL		2		2							2		2	2
19	16ME4124	Mechatronics	3-0-2	4	NIL	2	2	2	2									2	2

20	16ME4125	Design of Transmission Elements	3-2-0	4	16ME3221			3		2								3	2
V	**PROFESSIONAL ELECTIVES**																		
Design Specialization																			
1	16ME4051	Advanced Strength of Materials	3-0-0	3	16ME2107	2	2											2	2
2	16ME4052	Finite Element Methods	3-0-0	3	16ME2107	2	2			2								2	2
3	16ME4053	Advanced Vibrations and Noise Control	3-0-0	3	16ME3115	2	2											2	2
4	16ME4054	Computer Aided Design	3-0-0	3	NIL	2				2								2	2
5	16ME4055	Condition Monitoring	3-0-0	3	NIL	2												2	2
6	16ME4056	Creep, Fatique and Fracture Mechanics	3-0-0	3	NIL		2		2									2	2
7	16ME4057	Theory of Elasticity and Plasticity	3-0-0	3	NIL	2	2											2	2
8	16ME4058	Mechanics of Composite Materials	3-0-0	3	NIL	2												2	2
Manufacturing Specialization																			
1	16ME4061	Modern Manufacturing Processes	3-0-0	3	NIL		1											1	1
2	16ME4062	Advanced Materials	3-0-0	3	NIL		1											1	1
3	16ME4063	Additive Manufacturing	3-0-0	3	NIL		1											1	1
4	16ME4064	Automation In Manufacturing	3-0-0	3	NIL			1										1	1

5	16ME4065	Tool Engineering and Design	3-0-0	3	NIL		1											1	1
6	16ME4066	Flexible Manufacturing Systems	3-0-0	3	NIL		1											1	1
7	16ME4067	Smart Materials	3-0-0	3	NIL			1	1									1	1
8	16ME4068	Machine Tool Design	3-0-0	3	NIL			1	1									1	1
Thermal Specialization																			
1	16ME4071	Refrigeration and Air Conditioning	3-0-0	3	NIL	2	2											2	2
2	16ME4072	Non-Conventional Energy Sources	3-0-0	3	NIL	2	2		2									2	2
3	16ME4073	Power Plant Engineering	3-0-0	3	NIL	2	2											2	2
4	16ME4074	Automobile Engineering	3-0-0	3	NIL	1	1											1	1
5	16ME4075	Advanced Thermodynamics	3-0-0	3	17ME2106	2	2											2	2
6	16ME4076	Renewable Energy Technology	3-0-0	3	NIL	2	2											2	2
7	16ME4077	Compressible Fluid Flow	3-0-0	3	NIL	2	2											2	2
8	16ME4078	Heat Pipe: Theory, Design and Applications	3-0-0	3	NIL	3	3											3	3
Autotronics Specialization																			
1	16ME4081	Automotive Sensor and Applications	3-0-0	3	NIL	1		2	2									2	2
2	16ME4082	Autotronics	3-0-0	3	NIL	1	2	2	2									2	2

3	16ME4083	Electronic Engine Management System	3-0-0	3	NIL	1		2	2									2	2
4	16ME4084	Instrumentation in Automotive Industries	3-0-0	3	NIL	1		2	2									2	2
5	16ME4085	Mechatronics System Design	3-0-0	3	NIL	1		2	2									2	2
Robotics and Automation Specialization																			
1	16ME4091	Artificial Intelligence for Robotics	3-0-0	3	NIL	1		2	2									2	2
2	16ME4092	Automation System Design	3-0-0	3	NIL	1	2		2									2	2
3	16ME4093	Industrial Automation and Control	3-0-0	3	NIL	1		2	2									2	2
4	16ME4094	Industrial Hydraulic and Pneumatic Systems	3-0-0	3	NIL	1	2	2	2									2	2
5	16ME4095	Industrial Robotics and Material Handling Systems	3-0-0	3	NIL	1		2	2									2	2
VI		**OPEN ELECTIVES**																	
1	16ME40A1	Aircraft Systems Design	3-0-0	3	NIL	2	2											2	2
2	16ME40A2	Product Design and Development	3-0-0	3	NIL	2												2	2
3	16ME40A3	Biomechanics for Tissues and Joints	3-0-0	3	NIL	2												2	2
4	16ME40A4	Mechatronics	3-0-0	3	NIL		2	1						2				2	2
5	16ME40A5	Robotics	3-0-0	3	NIL	1	2	2	2									2	2
6	16ME40A6	Condition Monitoring	3-0-0	3	NIL	2												2	2

VII		**PROJECT**																	
	16IE2246	Industrial Training	0-0-4	2	NIL		2			2				2					
	16ME3145	Mini Project	0-0-4	2	NIL		2		2										
	16IE3247	Term Paper	0-0-4	2	NIL		3		3										
	16IE4048	Minor Project	0-0-4	2	NIL		3			3				3					
	16ME4049/16ME4050	Practice School/PROJECT	0-0-24	10	NIL		3			3				3					
VIII	**HONOR DEGREE COURSES**																		
1	16ME5001	Advanced Heat and Mass Transfer	3-0-0	3	NIL	2	2											2	2
2	16ME5002	Computational Fluid Dynamics	3-0-0	3	NIL	2	2											2	2
3	16ME5003	Incompressible and Compressible Flows	3-0-0	3	NIL	1	2											2	2
4	16ME5004	Mechanisms Design and Simulation	3-0-0	3	NIL	2	2											2	2
5	16ME5005	Advanced Mechanics of Solids	3-0-0	3	NIL	2	2											2	2
IX	**MINOR DEGREE IN INDUSTRIAL ENGINEERING**																		
1	16ME3126	Industrial Engineering Techniques	3-0-0	3	NIL		2											2	
2	16ME3118	Operations Research	3-0-0	3	NIL		2											2	
3	16ME3127	Engineering Management	3-0-0	3	NIL		2											2	

4	16ME3128	Work Study and Ergonomics	3-0-0	3	NIL		2											2	
5	16ME3129	Operations Management	3-0-0	3	NIL		2											2	