

M.Tech. in MECHANICAL ENGINEERING
STREAM: MANUFACTURING ENGINEERING
2026 Batch

Semester 1

S.No	Course No	Course Name	L	T	E	P	O	C
1	ME5301	Advanced materials processing and characterization	3	0	0	0	6	9
2	ME5307	Modelling and Simulation in Manufacturing	3	0	0	0	6	9
3	ME5309	Mechatronics Systems for Manufacturing	3	0	0	0	6	9
4	ME5401/ME	Data Science for Mechanical Engineering/Professional Elective 1	3	1	0	0	6	10/9
5		Professional elective 2	3	0	0	0	6	9
6	ME5381	Basic manufacturing lab	0	0	0	4	0	4
7	GN5003	Personal and Professional Growth	1	0	0	0	2	0
	GN1001	Posh Training I	3	0	0	0	0	0
		Total Credits						49/50

Semester 2

S.No	Course No	Course Name	L	T	E	P	O	C
1	ME5304	Manufacturing Metrology	3	0	0	0	6	9
2	ME5308	Smart Manufacturing	3	1	0	0	6	10
3	ME5020	Professional Communication Skills	1	1	0	0	1	3
4		Professional elective 3	3	0	0	0	6	9
5		Professional elective 4	3	0	0	0	6	9
		Professional elective 5/ Free Elective	3	0	0	0	6	9
6	ME5381	Manufacturing and precession engineering lab	0	0	0	4	0	4
		Total Credits						53

SUMMER

S.No	Course No	Course Name	L	T	E	P	O	C
1	ME6396	Project Phase I	0	0	0	0	20	20
		Total Credits						20

Semester 3

S.No	Course No	Course Name	L	T	E	P	O	C
1	ME6397	Project Phase II	0	0	0	0	35	35
		Total Credits :						35

Semester 4

S.No	Course No	Course Name	L	T	E	P	O	C
1	ME6398	Project Phase III	0	0	0	0	40	40
		Total Credits :						40

Semester	I	II	Summer	III	IV	Total
Credits	49/50	53	20	35	40	198/197

LIST OF ELECTIVES

Basket of Electives for Professional Elective-2 (For Thermal and Design Streams)

- ME5301 Advanced Materials Processing and Characterization
- ME5309 Modeling and Simulation in Manufacturing
- ME5307 Mechatronics Systems for Manufacturing

Basket of Electives for Professional Elective-2 (Manufacturing Stream)

- ME5203: Advanced Mechanics of Solids
- ME5205: Theory of Vibration
- ME5204: Finite Element Analysis
- ME 5101 Advanced Heat & Mass Transfer
- ME5103 Incompressible Fluid Flow
- ME 5105 Applied Thermodynamics

Elective Courses Basket (PE 3/4/5):

- ME5323 Microprocessors in Automation
- ME6345 Digital Manufacturing with 3D Printing
- ME6324 Artificial Intelligence in Manufacturing
- ME5011 Plasticity and Damage Mechanics
- ME6326 Machine Vision and its Applications
- ME5001 Prognostics and Health Management of Machine tools
- ME6343 Oil Hydraulic and Pneumatic Systems
- ME6333 Machining Science & Technology*
- ME6334 Advanced Sheet Metal Forming
- ME6320 Micro Manufacturing Technology
- ME6331 Treatment of Material
- Me7430 Oil Hydraulic and Pneumatic Systems

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