

## M. Tech. in Manufacturing Engineering (Two Years,

M. Tech. in Manufacturing Engineering - I Semester					
S. No.	Course Code	Name of Course	L-T-P	Credits	Course Type
<b>Theory Courses</b>					
1	MA 406 / MA 402/ MA 507	Operation Research / Modeling and Simulation/ Optimization Techniques	3-1-0	4	GE
2	ME 531	Industrial Automation and Robotics	3-1-0	4	CC-C57
3	ME 503	Mechatronics System Design	3-1-0	4	CC-C58
4		(Elective I)	3-0-0	3	DSE1
5		(Elective II)	3-0-0	3	DSE2
6.		Open Elective I (Only 2 Years M. Tech.)	3-0-0	3	OE1
<b>Practical Labs</b>					
7	ME 549	Advanced Manufacturing Lab I	0-0-3	2	CC-C59
8	ME 500	Seminar	0-0-3	2	SEC
9	GP	General Proficiency		NC	
		<b>Total</b>	<b>18-3-6</b>	<b>25</b>	
		<b>Total Contact Hours</b>			

Open Elective: Courses from other schools

M. Tech. in Manufacturing Engineering - II Semester					
S. No.	Course Code	Name of Course	L-T-P	Credits	Course Type
<b>Theory Courses</b>					
1	ME 502	Industrial Tribology	3-1-0	4	CC-C51
2	ME 532	Metal Cutting and Tool Design	3-1-0	4	CC-C52
3	ME 534	Micromachining and Nanofinishing	3-0-0	3	CC-C53
4		(Elective III)	3-0-0	3	DSE4
5		(Elective IV)	3-0-0	3	DSE5
<b>Practical Labs</b>					
6	ME 522	Project	0-0-10	5	DP1
7	ME 548	Advanced Manufacturing Lab II	0-0-3	2	CC-C54
8	GP	General Proficiency		NC	
		<b>Total</b>	<b>15-2-13</b>	<b>24</b>	
		<b>Total Contact Hours</b>			

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M. Tech. in Manufacturing Engineering - III Semester					
S. No.	Course Code	Name of Course	L-T-P	Credits	Course Type
<b>Theory Courses</b>					
1	ME 631	Quality Engineering in Manufacturing	3-1-0	4	CC-C55
2	ME 633	CNC Machines and Programming	3-1-0	4	CC-C56
3		(Elective V)	3-0-0	3	DSE6
<b>Practical Labs</b>					
4	ME 613	Dissertation Part I	2*-0-24	8	DP2
5	GP	General Proficiency		NC	
		<b>Total</b>	<b>11-0-24</b>	<b>19</b>	
		<b>Total Contact Hours</b>			

M. Tech. in Manufacturing Engineering - IV Semester					
S. No.	Course Code	Name of Subject	L-T-P	Credits	Course Type
<b>Theory Courses</b>					
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<b>Practical Labs</b>					
1	ME 614	Dissertation Part II	0-0-44	22	DP3
2	GP	General Proficiency		NC	
		<b>Total</b>		<b>22</b>	
		<b>Total Contact Hours</b>			

### M. Tech. in Manufacturing Engineering (Two Years)

Type of Courses	Ability Enhancement Courses		Core Courses		Elective Courses			Open Elective	Total
Sem	AECC	SEC	FC	CC	E-DSE	E-D/P	E-GE	OE	
I				12	6		4	3	25
II				13	6	5			24
III				8	3	8			19
IV						22			22
Total				33	15	35	4	3	90

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## List of Electives for M. Tech. Manufacturing Engineering

S. No.	Course Code	Name of Course	L-T-P	Credits
<b>Elective -I – DSE 1</b>				
1	ME 533	Welding Engineering	3-0-0	3
2	ME 535	Thermo-fabrication Processes	3-0-0	3
3	ME 537	Precision Engineering	3-0-0	3
4	ME 539	Surface Engineering	3-0-0	3
<b>Elective -II- DSE 2</b>				
1	ME 541	Modelling of Metal Forming Processes	3-0-0	3
2	ME543	Plastic Technology	3-0-0	3
3	ME 545	Computer Aided Inspection	3-0-0	3
4	ME 547	Design of Manufacturing Systems	3-0-0	3
<b>Elective -III- DSE 3</b>				
1	ME 536	Design and Metallurgy of Welded Joints	3-0-0	3
2	ME 538	Flexible and Computer Integrated Manufacturing	3-0-0	3
3	ME 510	Machine Tool Design	3-0-0	3
<b>Elective -IV – DSE 4</b>				
1	ME 540	Mechanics of Sheet Metal Forming	3-0-0	3
2	ME 542	Machining of Hard Materials	3-0-0	3
3	ME 544	Design for Manufacturing and Assembly	3-0-0	3
4	ME 520	Composite Materials and Analysis	3-0-0	3
<b>Elective -V – DSE 5</b>				
1	ME 605	Rapid Prototyping and Manufacturing	3-0-0	3
2	ME 635	Product Design and Development	3-0-0	3
3	ME 637	Product Lifecycle Management	3-0-0	3
4	ME 639	Manufacturing Systems Management	3-0-0	3

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