



**M.E. MANUFACTURING ENGINEERING (FULL TIME)**  
**TOTAL CREDITS TO BE EARNED FOR THE AWARD OF THE DEGREE = 71**  
**I TO IV SEMESTERS (FULL TIME) CURRICULUM AND SYLLABUS**  
**SEMESTER I**

SL. No	COURSE CODE	COURSE TITLE	L	T	P	C
<b>THEORY</b>						
1	1701MF101	Advanced Optimization Techniques	2	2	0	3
2	1702MF102	Polymers and Composite Materials	3	0	0	3
3	1702MF103	Materials Testing and Mechanical characterization	3	0	0	3
4	1702MF104	Industrial Automation and Mechatronics	3	0	0	3
5	1702MF105	Robot Design and Programming	3	0	0	3
6		Elective I	3	0	0	3
<b>PRACTICAL</b>						
7	1704MF106	CAD/CAM Lab	0	0	4	2
8	1704MF107	Automation and Mechatronics Lab	0	0	2	1
9	1704MF108	Communication skills lab I	0	0	2	1
<b>TOTAL</b>			<b>18</b>	<b>2</b>	<b>10</b>	<b>21</b>

**SEMESTER II**

SL. No	COURSE CODE	COURSE TITLE	L	T	P	C
<b>THEORY</b>						
1	1701MF201	Advanced Machining Technology	3	0	0	3
2	1702MF202	Flexible Tooling and Automated Inspection	3	0	0	3
3	1702MF203	Theory of Metal Forming	3	0	0	3
4	1702MF204	Advances in Casting and Welding	3	0	0	3
5	1702MF205	Precision Machining	3	0	0	3
6		Elective II	3	0	0	3
<b>PRACTICAL</b>						
7	1704MF206	Metal Forming Lab	0	0	4	2
8	1704MF207	Technical Seminar	0	0	2	1
9	1704MF208	Communication skills lab II	0	0	2	1
<b>TOTAL</b>			<b>18</b>	<b>0</b>	<b>10</b>	<b>21</b>

**SEMESTER III**

SL. No	COURSE CODE	COURSE TITLE	L	T	P	C
<b>THEORY</b>						
1		Elective III	3	0	0	3
2		Elective IV	3	0	0	3
3		Elective V	3	0	0	3
<b>PRACTICAL</b>						
4	1704MF301	Project Work (Phase I)	0	0	12	6
<b>TOTAL</b>			<b>9</b>	<b>0</b>	<b>12</b>	<b>15</b>

**ATTESTED**

*(Signature)*  
**Dr. S. RAMABALAN, M.E., Ph.D.,**  
**PRINCIPAL**

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### SEMESTER IV

SL. No	COURSE CODE	COURSE TITLE	L	T	P	C
<b>PRACTICAL</b>						
1	1704MF401	Project Work (Phase II)	0	0	28	14
<b>TOTAL</b>			<b>0</b>	<b>0</b>	<b>28</b>	<b>14</b>

### LIST OF ELECTIVES FOR M.E. MANUFACTURING ENGINEERING

SL. NO	COURSE CODE	COURSE TITLE	L	T	P	C
1	1703MF001	Automated Computer Integrated Manufacturing	3	0	0	3
2	1703MF002	Flexible Manufacturing Systems	3	0	0	3
3	1703MF003	MEMS and Nanotechnology	3	0	0	3
4	1703MF004	Design for Manufacture and Assembly	3	0	0	3
5	1703MF005	Mechanical Behavior of Materials	3	0	0	3
6	1703MF006	Manufacturing of Non-metallic products	3	0	0	3
7	1703MF007	Non-Destructive Evaluation	3	0	0	3
8	1703MF008	Tribology	3	0	0	3
9	1703MF009	Lasers in Manufacturing	3	0	0	3
10	1703MF010	Smart Materials and MEMS: Design and fabrication	3	0	0	3
11	1703MF011	Rapid Prototyping	3	0	0	3
12	1703MF012	Lean Manufacturing	3	0	0	3
13	1703MF013	Green Manufacturing	3	0	0	3
14	1703MF014	Industrial Ergonomics	3	0	0	3
15	1703MF015	Product Design and Development	3	0	0	3
16	1703MF016	Heat Treatment	3	0	0	3
17	1703MF017	Control of Manufacturing Processes	3	0	0	3
18	1703MF018	Materials Technology	3	0	0	3
19	1703MF019	Finite Element Methods for Manufacturing Engineering	3	0	0	3
20	1703MF020	Modeling of Manufacturing Processes	3	0	0	3
21	1703MF023	Research Methodology	3	0	0	3

### OPEN ELECTIVES

SL. NO	COURSE CODE	COURSE TITLE	L	T	P	C
1.	1703MF021	Project Management	3	0	0	3
2.	1703MF022	Product Life Cycle Management	3	0	0	3
3.	1703MF023	Research Methodology	3	0	0	3
4.	1703MF024	Modeling and Simulation	3	0	0	3
5.	1703MF025	Sustainable Manufacturing	3	0	0	3

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