

**SHRI G S INSTITUTE OF TECHNOLOGY & SCIENCE, INDORE**  
**I M.TECH. CAD/CAM/CAE**

**SEMESTER -I**

S.No.	Subject Code	Subject	Hours per Week			Th. Credit	Pr. Credit	Maximum Marks				
			L	T	P			TH	CW	SW	Pr.	Total
1	ME87009	Mechanical Behaviour and Characterization of Materials ✓	3	-	-	3	-	70	30	-	-	100
4	ME87016	Computer Aided Design ✓	3	-	-	3	-	70	30	-	-	100
5	ME87014	Finite Element Analysis ✓	3	-	-	3	-	70	30	-	-	100
6		Elective - I	3	-	-	3	-	70	30	-	-	100
7		Elective - II	3	-	-	3	-	70	30	-	-	100
8	ME87454	FEM Lab	-	-	4	-	2	-	-	40	60	100
9	ME87455	CAD Lab	-	-	4	-	2	-	-	40	60	100
10	ME87499	Comprehensive Viva	-	-	-	-	-	-	-	-	Grade	Grade
<b>Total</b>			15	0	8	15	4	350	150	80	120	700

**SEMESTER -II**

S.No.	Subject Code	Subject	Hours per Week			Th. Credit	Pr. Credit	Maximum Marks				
			L	T	P			TH	CW	SW	Pr.	Total
1	ME87507	Rapid Prototyping and Tooling ✓	3	-	-	3	-	70	30	-	-	100
2	IP87508	Computer Aided Manufacturing ✓	3	-	-	3	-	70	30	-	-	100
3	ME87509	Mechatronics and Automation ✓	3	-	-	3	-	70	30	-	-	100
4		Elective-III	3	-	-	3	-	70	30	-	-	100
5		Elective-IV	3	-	-	3	-	70	30	-	-	100
6	ME87853	Rapid Prototyping and Tooling Lab.	-	-	4	-	2	-	-	40	60	100
7	ME87854	Mechatronics and Automation Lab.	-	-	2	-	1	-	-	40	60	100
8	ME87882	Minor Project Seminar - I	-	-	2	-	1	-	-	50	-	100
9	ME87899	Comprehensive Viva	-	-	-	-	-	-	-	-	Grade	Grade
<b>Total</b>			15	0	8	15	4	350	150	130	120	800

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**List of Elective**

<b>Electives I</b>		<b>SEMESTER -I</b>
<b>S.No.</b>	<b>Subject Code</b>	<b>Subject</b>
1	ME87205	Geometric Dimensioning & Tolerancing
2		Advanced Mathematical Methods in Engineering
3	ME87203	Analysis and Synthesis of Mechanism
4	ME87204	Computer Aided Process Planning

<b>Electives II</b>		<b>SEMESTER -I</b>
<b>S.No.</b>	<b>Subject Code</b>	<b>Subject</b>
1	ME87301	Hydraulic and Pneumatic Control
2	ME87302	Bio Mechanics
3	ME87304	MEMS and NEMS
4		Robotics

<b>Electives III</b>		<b>SEMESTER -II</b>
<b>S.No.</b>	<b>Subject Code</b>	<b>Subject</b>
1	ME87705	Product Design and Development
2	ME87708	Design of Thermal System
3		Experimental Stress Analysis
4		Metrology and Computer Aided Inspection

<b>Electives IV</b>		<b>SEMESTER -II</b>
<b>S.No.</b>	<b>Subject Code</b>	<b>Subject</b>
1	ME87754	Quantitative Techniques
2	ME87755	Optimization Techniques in Design
3	ME87756	Computational Fluid Dynamics
4		Industry 4.0 and IoT

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**SEMESTER - III**

S.No.	Subject Code	Subject	Hours per Week			Th. Credit	Pr. Credit	Maximum Marks				
			L	T	P			TH	CW	SW	Pr.	Total
1	ME87931	*Industrial Training/Term Paper/Seminar-II	-	-	8	-	4	-	-	50	-	50
2	ME87932	Dissertation Phase-I	-	-	20	-	10	-	-	40	60	100
3	MA87902	**Research Methodology & IPR	2	-	-	2	-	70	30	-	-	100
<b>Total</b>			2	0	28	2	14	70	30	90	60	250

\* Industrial training to be carried out between II and III semester during vacation

\*\* This course can be studied online with prior permission of HOD, however, End-semester examination will be conducted in the Institute.

**SEMESTER - IV**

S.No.	Subject Code	Subject	Hours per Week			Th. Credit	Pr. Credit	Maximum Marks				
			L	T	P			TH	CW	SW	Pr.	Total
1	ME87952	Dissertation Phase-II	-	-	32	-	16	-	-	80	120	200
<b>Total</b>			0	0	32	0	16	0	0	80	120	200