

## Course Structure of M. Tech. in Mechanical Engineering

### COURSE STRUCTURE FOR M.TECH. DESIGN FIRST YEAR

SEMESTER I (Subjects)				M.TECH. FIRST YEAR (Mechanical Engineering)										
Sr. No.	Category code	Course Code	Course Name	Teaching Scheme					Exam Scheme					Total Marks
				L	T	P	C	Hrs/wk	Theory			Practical		
									CE	MS	ES	CE	ES	
1	PCC	18MED501T	Advanced Mechanics of Solids	3	0	0	3	3	25	50	25	--	--	100
2	PCC	18MED502T	Finite Element and Mesh Free Methods	3	0	0	3	3	25	50	25	--	--	100
3	PCC	18MED503T	Materials Design and Selection	3	0	0	3	3	25	50	25	--	--	100
4	PCC	18MED01P	Design Lab-I	0	0	4	2	4	--	--	--	50	50	100
5	PCE	MED XXXT	Elective I	3	0	0	3	3	25	50	25	--	--	100
6	PCE	MED XXXT	Elective II	3	0	0	3	3	25	50	25	--	--	100
<b>Total</b>				<b>15</b>	<b>0</b>	<b>4</b>	<b>17</b>	<b>19</b>						<b>600</b>

CE = Continuous Evaluation

MS = Mid Semester Exam

ES = End Semester Exam

Elective : (i) MEDXXXT: Mechanical Design Optimization, (ii) MEDXXXT: Robotics (iii) MEDXXXT: Automotive Design, (iv) MEDXXXT: Design of Material Handling Equipment (v) MEDXXXT: Fault Diagnosis and Condition Monitoring, (vi) ME XXXT: Mechanics of Smart Materials (vii) MEDXXXT: Rapid Product Development, (viii) MEDXXXT: Theory of Elasticity and Plasticity, (ix) MEDXXXT: Vehicle Dynamics, (x) MEDXXXT: Machine Learning Applications in Design and Manufacturing (xi) MEDXXXT: Theory of Plates and Shells, (xii) MEDXXXT: Design of Light Weight Structures, (xiii) MEDXXXT: Industrial Tribology and Lubrication, (xiv) MEDXXXT: Fracture Mechanics (xv) MEDXXXT: Bicycle Design and Frame-Building

## COURSE STRUCTURE FOR M.TECH. DESIGN FIRST YEAR

SEMESTER II (Subjects)				M.TECH. FIRST YEAR (Mechanical Engineering)										
Sr. No.	Category code	Course Code	Course Name	Teaching Scheme					Exam Scheme					Total Marks
				L	T	P	C	Hrs/wk	Theory			Practical		
									CE	MS	ES	CE	ES	
1	PCC	18MED506T	Experimental Methods	3	0	0	3	3	30	60	10	--	--	100
2	PCC	18MED507T	Theory and Analysis of Vibration	3	0	0	3	3	30	60	10	--	--	100
3	PCC	18MED508T	Product Design and Development	3	0	0	3	3	30	60	10	--	--	100
4	PCC	18MED02P	Design Lab-II	0	0	4	2	4	--	--	--	50	50	100
5	PCE	MEDXXXT	Elective III	3	0	0	3	3	30	60	10	--	--	100
6	PCE	MEDXXXT	Elective IV	3	0	0	3	3	30	60	10	--	--	100
<b>Total</b>				<b>15</b>	<b>0</b>	<b>4</b>	<b>17</b>	<b>19</b>						<b>600</b>

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## COURSE STRUCTURE FOR M.TECH. DESIGN SECOND YEAR

SEMESTER III (Subjects)				M.TECH. SECOND YEAR (Mechanical Engineering)										
Sr. No.	Category code	Course Code	Course Name	Teaching Scheme					Exam Scheme					Total Marks
				L	T	P	C	Hrs/wk	Theory			Practical		
									CE	MS	ES	CE	ES	
1	PCC	<b>MED511</b>	<b>Seminar</b>				4		--	50	50	--	--	100
2	PCC	<b>MED512</b>	<b>Project</b>				14		--	50	50	--	--	100
3	PCC	<b>MED513</b>	<b>Industrial Internship</b>						--	--	--	--	--	PP/NP
<b>Total</b>							<b>18</b>							<b>200</b>

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## COURSE STRUCTURE FOR M.TECH. DESIGN SECOND YEAR

SEMESTER IV (Subjects)				M.TECH. SECOND YEAR (Mechanical Engineering)										
Sr. No.	Category code	Course Code	Course Name	Teaching Scheme					Exam Scheme					Total Marks
				L	T	P	C	Hrs/wk	Theory			Practical		
									CE	MS	ES	CE	ES	
1	PCC	<b>MED514</b>	<b>Seminar</b>				4		--	50	50	--	--	100
2	PCC	<b>MED515</b>	<b>Project</b>				24		--	50	50	--	--	100
<b>Total</b>							<b>28</b>							<b>200</b>

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ES = End Semester Exam