

**SCHOOL OF ENGINEERING & TECHNOLOGY
SRI PADMAVATI MAHILA VISVAIDYALAYAM**

**(Women's University)
TIRUPATI – 517 502, ANDHRA PRADESH**



Accredited by NAAC with "A" Grade

**B.TECH (MECHANICAL) DEGREE
SYLLABUS BOOK**

Effective from 2016-17 under CBCS

**EAMCET CODE: SPMUSF
PGECET / GATE CODE: SPME1**

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SCHOOL OF ENGINEERING AND TECHNOLOGY

SRI PADMAVATI MAHILA VISVAVIDYALAYAM
(WOMEN'S UNIVERSITY), TIRUPATI- 517 502

DEPARTMENT OF MECHANICAL ENGINEERING SCHEME

S.NO.	Course Number	Name of the Course	Instructions (hrs per week)			Evaluation				Total Marks	
			Theory	Practical	Credits	Internal Exam		External Exam			
						Duration in hrs	Max. Marks	Duration in hrs	Max. Marks		
1	BST08	Probability & Statistics	4	-	4	2	30	3	70	100	
2	MET01	Thermodynamics	4	-	4	2	30	3	70	100	
3	MET03	Material Science & Metallurgy	4	-	4	2	30	3	70	100	
4	MET05	Strength of Materials	4	-	4	2	30	3	70	100	
5	EET17	Electrical Engineering	4	-	4	2	30	3	70	100	
6	MET06	Machine Drawing	2	4	4	2	30	3	70	100	
PRACTICALS											
S.NO.	Course Number	Name of the Course	Instructions (hrs per week)			Evaluation				Total Marks	
			Theory / Tutorial	Practical	Credits	Continuous Evaluation Max Marks	Internal Exam		External Exam		
							Duration hrs	Max. Marks	Duration in hrs		Max. Marks
7	EEP08	Electrical Engineering Lab & Electronics Engineering Lab	-	2	1	20	2	20	3	60	100
8	MEP03	Mechanics of Solids lab & Material Science Lab	-	2	1	20	2	20	3	60	100
TOTAL			22	8	26	-	-	-	-	-	800

II YEAR- I SEMESTER



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S.NO.	Course Number	Name of the Course	Instructions (hrs per week)			Evaluation				Total Marks	
			Theory	Practical	Credits	Internal Exam		External Exam			
						Duration in hrs	Max. Marks	Duration in hrs	Max. Marks		
1	BST09	Managereial Economics & Financial Analysis	4	-	4	2	30	3	70	100	
2	MET07	Thermal Engineering	4	-	4	2	30	3	70	100	
3	MET08	Manufacturing Processes	4	-	4	2	30	3	70	100	
4	MET09	Kinematics of Machinery	4	-	4	2	30	3	70	100	
5	MET10	Fluid Mechanics & Hydraulic Machinery	4	-	4	2	30	3	70	100	
6	MET11	Design of Machine Members-I	4	-	4	2	30	3	70	100	
PRACTICALS											
S.NO.	Course Number	Name of the Course	Instructions (hrs per week)			Continuous Evaluation Max Marks	Evaluation				Total Marks
			Theory / Tutorial	Practical	Credits		Internal Exam		External Exam		
							Duration in hrs	Max. Marks	Duration in hrs	Max. Marks	
7	MEP04	Manufacturing processes Lab	-	2	1	20	2	20	3	60	100
8	MEP05	Fluid Mechanics & Hydraulic Machinery Lab	-	2	1	20	2	20	3	60	100
TOTAL			24	4	26	-	-	-	-	-	800

II YEAR- II SEMESTER



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DEPARTMENT OF MECHANICAL ENGINEERING SCHEME

S.NO.	Course Number	Name of the Course	Instructions (hrs per week)			Evaluation				Total Marks	
			Theory	Practical	Credits	Internal Exam		External Exam			
						Duration in hrs	Max. Marks	Duration in hrs	Max. Marks		
1	MET12	IC Engines & Gas Turbines	4	-	4	2	30	3	70	100	
2	MET13	Metal Cutting & Machine Tools	4	-	4	2	30	3	70	100	
3	MET14	Dynamics Of Machinery	4	-	4	2	30	3	70	100	
4	MET15	Design of Machine Members-II	4	-	4	2	30	3	70	100	
5	MET16	Instrumentation & Control Systems	4	-	4	2	30	3	70	100	
6	MET17	Industrial Engineering & Management	4	-	4	2	30	3	70	100	
PRACTICALS											
S.NO.	Course Number	Name of the Course	Instructions (hrs per week)			Evaluation				Total Marks	
			Theory / Tutorial	Practical	Credits	Continuous Evaluation Max Marks	Internal Exam		External Exam		
							Duration in hrs	Max. Marks	Duration in hrs		Max. Marks
7	MEP06	Machine Tools lab	-	2	1	20	2	20	3	60	100
8	MEP07	I C Engines Lab	-	2	1	20	2	20	3	60	100
TOTAL			24	4	26	-	-	-	-	-	800

III YEAR- I SEMESTER



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S.NO.	Course Number	Name of the Course	Instructions (hrs per week)			Evaluation				Total Marks	
			Theory	Practical	Credits	Internal Exam		External Exam			
						Duration in hrs	Max. Marks	Duration in hrs	Max. Marks		
1	MET17	Operations Research	4	-	4	2	30	3	70	100	
2	MET18	Computer Graphics	3	-	3	2	30	3	70	100	
3	MET46	Finite Element Method	4	-	4	2	30	3	70	100	
4	MET20	Engineering Metrology	4	-	4	2	30	3	70	100	
5	MET26 MET27 MET28	Elective-I 1. Non-Conventional Sources of Energy 2. Tool Design 3. Mechatronics	4	-	3	2	30	3	70	100	
6	MET29 MET30 MET31 MUP01 MUP02 MUP03	Elective-II 1. Nano Technology 2. Composite Materials 3. Power Plant Engineering 4. Music 5. Bharatha Natyam 6. Kuchipudi)	4	-	3	2	30	3	70	100	
TOTAL											
S.NO.	Course Number	Name of the Course	Instructions (hrs per week)			Evaluation				Total Marks	
			/ Tutorial	Practical	Credits	Continuous Evaluation Max Marks	Internal Exam		External Exam		
							Duration hrs	Max. Marks	Duration in hrs		Max. Marks
7	CSP12	Computer Graphics lab	-	2	1	20	2	20	3	60	100
8	MEP08	Instrumentation & Dynamics lab	-	2	1	20	2	20	3	60	100
9	MEP09	Metrology lab	-	2	1	20	2	20	3	60	100
TOTAL			23	6	24	-	-	-	-	-	900

III YEAR- II SEMESTER



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S.NO.	Course Number	Name of the Course	Instructions (hrs per week)			Evaluation				Total Marks	
			Theory	Practical	Credits	Internal Exam		External Exam			
						Duration in hrs	Max. Marks	Duration in hrs	Max. Marks		
1	MET21	CAD / CAM	4	-	4	2	30	3	70	100	
2	MET22	Heat Transfer	4	-	4	2	30	3	70	100	
3	MET23	Automobile Engineering	4	-	4	2	30	3	70	100	
4	MET24	Unconventional Machining Processes	4	-	4	2	30	3	70	100	
5	MET32 MET33 MET34	Elective - III 1. Refrigeration & Air Conditioning 2. Industrial Robotics 3. Simulation & Modelling	4	-	3	2	30	3	70	100	
6	MET35 MET36 MET37 CSP13	ELECTIVE -IV 1. Computational fluid dynamics 2. Automation in Manufacturing 3. Innovation & Entrepreneurship 4. MOOCS / Advanced programming languages lab	4	-	3	2	30	3	70	100	
PRACTICALS											
S.NO.	Course Number	Name of the Course	Instructions (hrs per week)			Evaluation				Total Marks	
			Theory / Tutorial	Practical	Credits	Continuous Evaluation Max Marks	Internal Exam		External Exam		
							Duration hrs	Max. Marks	Duration in hrs		Max. Marks
7	MEP10	CAD /CAM lab	-	2	1	20	2	20	3	60	100
8	MEP11	Heat Transfer lab	-	2	1	20	2	20	3	60	100
TOTAL			24	4	24	-	-	-	-	-	800

IV YEAR- I SEMESTER



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S.NO.	Course Number	Name of the Course	Instructions (hrs per week)			Evaluation				Total Marks	
			Theory	Practical	Credits	Internal Exam		External Exam			
						Duration in hrs	Max. Marks	Duration in hrs	Max. Marks		
1	MET25	Production Systems	4	-	4	2	30	3	70	100	
2	MET38 MET39 MET40	Elective - V 1. Welding Technology 2. Total Quality Management 3. Non Destructive Testing	4	-	3	2	30	3	70	100	
3	MET41 MET42 MET43	Elective - VI 1. Project Management 2. Supply Chain Management 3. Experimental Stress Analysis	4	-	3	2	30	3	70	100	
PRACTICALS											
S.NO.	Course Number	Name of the Course	Instructions (hrs per week)			Evaluation				Total Marks	
			Theory / Tutorial	Practical	Credits	Continuous Evaluation Max Marks	Internal Exam		External Exam		
							Duration hrs	Max. Marks	Duration in hrs		Max. Marks
7	MEP12	Project Work		12	6	20		20		60	100
TOTAL			12	12	16	-	-	-	-	-	400

IV YEAR- II SEMESTER



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**DEPARTMENT OF MECHANICAL
ENGINEERING SCHEME OF
INSTRUCTIONS**

TOTAL NO OF CREDITS PER SEMESTER

S NO	YEAR & SEMESTER	NO OF CREDITS PER SEMESTER
1	I-I	25
2	I-II	27
3	II-I	26
4	II-II	26
5	III-I	26
6	III-II	24
7	IV-I	24
8	IV-II	16
TOTAL NO OF CREDITS		194