

M. Tech. in Thermal Engineering (Two Years)

M. Tech. in Thermal Engineering - I Semester					
S. No.	Course Code	Name of Course	L-T-P	Credits	Course Type
Theory Courses					
1	MA 406 / MA 402/ MA 507	Operation Research / Modeling and Simulation/ Optimization Techniques	3-1-0	4	GE
2	ME 561	Advanced Fluid Mechanics	3-1-0	4	CC-C57
3	ME 501	Finite Element Methods and Analysis	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
Practical Labs					
7	ME 579	Advanced Thermal Engineering Lab	0-0-3	2	CC-C59
8	ME 500	Seminar	0-0-3	2	SEC
9	GP	General Proficiency		NC	
		Total	18-3-6	25	
		Total Contact Hours			

Open Elective: Courses from other schools

M. Tech. in Thermal Engineering - II Semester					
S. No.	Course Code	Name of Course	L-T-P	Credits	Course Type
Theory Courses					
1	ME 562	Advanced Refrigeration and Air Conditioning	3-1-0	4	CC-C51
2	ME 564	Measurement and Process Control	3-1-0	4	CC-C52
3	ME 566	Computational Fluid Dynamics	3-0-0	3	CC-C53
4		(Elective III)	3-0-0	3	DSE4
5		(Elective IV)	3-0-0	3	DSE5
Practical Labs					
6	ME 522	Project	0-0-10	5	DP1
7	ME 582	Computational Fluid Dynamics Lab	0-0-3	2	CC-C54
8	GP	General Proficiency		NC	
		Total	15-2-13	24	
		Total Contact Hours			

24

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Page
8-8-15

Page
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M. Tech. in Thermal Engineering - III Semester

S. No.	Course Code	Name of Course	L-T-P	Credits	Course Type
Theory Courses					
1	ME 661	Advanced I. C. Engines and Gas Turbines	3-1-0	4	CC-C55
2	ME 663	Energy Engineering and Management	3-1-0	4	CC-C56
3		(Elective V)	3-0-0	3	DSE6
Practical Labs					
4	ME 613	Dissertation Part I	2*-0-24	8	DP2
5	GP	General Proficiency		NC	
Total			11-0-24	19	
Total Contact Hours					

M. Tech. in Thermal Engineering - IV Semester

S. No.	Course Code	Name of Course	L-T-P	Credits	Course Type
Theory Courses					
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Practical Labs					
1	ME 614	Dissertation Part II	0-0-44	22	DP3
2	GP	General Proficiency		NC	
Total				22	
Total Contact Hours					

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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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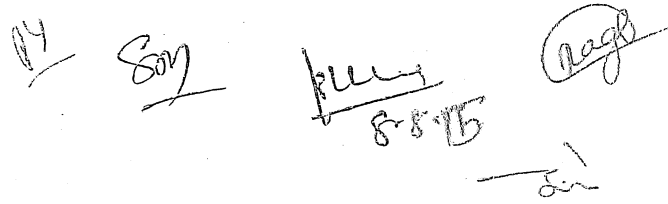
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List of Electives for M. Tech. Thermal Engineering

S. No.	Course Code	Name of Course	L-T-P	Credits
Elective -I-DSE1				
1	ME 563	Advanced Heat and Mass Transfer	3-0-0	3
2	ME 565	Convective Heat and Mass Transfer	3-0-0	3
3	ME 567	Boiling, Condensation and Two-phase Flow	3-0-0	3
4	ME 569	Air Conditioning and Ventilation Systems	3-0-0	3
Elective -II-DSE2				
1	ME 571	Advanced Thermodynamics	3-0-0	3
2	ME 573	Theory of Combustion and Emission	3-0-0	3
3	ME 575	Cryogenic Technology	3-0-0	3
4	ME 577	Thermal and Nuclear Power Plant	3-0-0	3
Elective -III- DSE3				
1	ME 568	New and Renewable Energy Resources	3-0-0	3
2	ME 570	Alternate Fuels	3-0-0	3
3	ME 572	Solar Energy	3-0-0	3
4	ME 512	Environmental Engineering & Pollution Control	3-0-0	3
Elective -IV- DSE4				
1	ME 574	Turbo Machines	3-0-0	3
2	ME 576	Aircraft and Rocket Propulsion	3-0-0	3
3	ME 578	Gas Dynamics	3-0-0	3
4	ME 580	Wind Energy Technology	3-0-0	3
Elective -V- DSE5				
1	ME 665	Optimum Design of Thermal Systems	3-0-0	3
2	ME 667	Heat Exchanger Analysis and Design	3-0-0	3
3	ME 669	Experimental Methods in Thermal Engineering	3-0-0	3
4	ME 611	Design of Process Equipment	3-0-0	3



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