

<b>M. Tech. in Thermal Engineering - I Semester</b>				
<b>S. No.</b>	<b>Subject Code</b>	<b>Name of Subject</b>	<b>L-T-P</b>	<b>Credits</b>
	<b>Theory Subjects</b>			
<b>1</b>	MEE 501	Optimization Techniques	3-1-0	4
<b>2</b>	MET 501	Advanced Fluid Mechanics	3-1-0	4
<b>3</b>	MEE 503	Finite Element Methods and Analysis	3-0-0	3
<b>4</b>		(Elective I)	3-0-0	3
<b>5</b>		(Elective II)	3-0-0	3
	<b>Practical Labs</b>			
<b>6</b>	MET 519	Advanced Thermal Engineering Lab	0-0-3	2
<b>7</b>	MET 521	Seminar	0-0-3	2
<b>8</b>	GP 501	General Proficiency		1
		<b>Total</b>	<b>15-2-6</b>	<b>22</b>
		<b>Total Contact Hours</b>		

<b>M. Tech. in Thermal Engineering - II Semester</b>				
<b>S. No.</b>	<b>Subject Code</b>	<b>Name of Subject</b>	<b>L-T-P</b>	<b>Credits</b>
	<b>Theory Subjects</b>			
<b>1</b>	MET 504	Advanced Refrigeration and Air Conditioning	3-1-0	4
<b>2</b>	MET 506	Measurement and Process Control	3-1-0	4
<b>3</b>	MET 508	Computational Fluid Dynamics	3-0-0	3
<b>4</b>		(Elective III)	3-0-0	3
<b>5</b>		(Elective IV)	3-0-0	3
	<b>Practical Labs</b>			
<b>6</b>	MET 526	Project	0-0-8	4
<b>7</b>	MET 528	Computational Fluid Dynamics Lab	0-0-3	2
<b>8</b>	GP 502	General Proficiency		1
		<b>Total</b>	<b>15-2-7</b>	<b>24</b>
		<b>Total Contact Hours</b>		

<b>M. Tech. in Thermal Engineering - III Semester</b>				
<b>S. No.</b>	<b>Subject Code</b>	<b>Name of Subject</b>	<b>L-T-P</b>	<b>Credits</b>
	<b>Theory Subjects</b>			
<b>1</b>	MET 601	Advanced I. C. Engines and Gas Turbines	3-0-0	3
<b>2</b>	MET 603	Energy Engineering and Management	3-0-0	3
<b>3</b>		(Elective V)	3-0-0	3
	<b>Practical Labs</b>			
<b>4</b>	MET 613	Dissertation (Preliminary)	2*-0-24	12
<b>5</b>	GP 601	General Proficiency		1
		<b>Total</b>	<b>11-0-24</b>	<b>22</b>
		<b>Total Contact Hours</b>		

\*Direct contact load of faculty concern will be 1 hour per student per week subjected to maximum of 2 hours per week.

<b>M. Tech. in Thermal Engineering - IV Semester</b>				
<b>S. No.</b>	<b>Subject Code</b>	<b>Name of Subject</b>	<b>L-T-P</b>	<b>Credits</b>
	<b>Theory Subjects</b>			
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	<b>Practical Labs</b>			
<b>1</b>	MET 614	Dissertation	0-0-42	21
<b>2</b>	GP 602	General Proficiency		1
		<b>Total</b>		<b>22</b>
		<b>Total Contact Hours</b>		

## List of Electives for M. Tech. Thermal Engineering

<b>Elective -I</b>				
<b>S. No.</b>	<b>Subject Code</b>	<b>Name of Subject</b>	<b>L-T-P</b>	<b>Credits</b>
<b>1</b>	MET 503	Advanced Heat and Mass Transfer	3-0-0	3
<b>2</b>	MET 505	Convective Heat and Mass Transfer	3-0-0	3
<b>3</b>	MET 507	Boiling, Condensation and Two-phase Flow	3-0-0	3
<b>4</b>	MET 509	Air Conditioning and Ventilation Systems	3-0-0	3
<b>Elective -II</b>				
<b>1</b>	MET 511	Advanced Thermodynamics	3-0-0	3
<b>2</b>	MET 513	Theory of Combustion and Emission	3-0-0	3
<b>3</b>	MET 515	Cryogenic Technology	3-0-0	3
<b>4</b>	MET 517	Thermal and Nuclear Power Plant	3-0-0	3
<b>Elective -III</b>				
<b>1</b>	MET 510	New and Renewable Energy Resources	3-0-0	3
<b>2</b>	MET 512	Alternate Fuels	3-0-0	3
<b>3</b>	MET 514	Solar Energy	3-0-0	3
<b>4</b>	MET 516	Environmental Engineering & Pollution Control	3-0-0	3
<b>Elective -IV</b>				
<b>1</b>	MET 518	Turbo Machines	3-0-0	3
<b>2</b>	MET 520	Aircraft and Rocket Propulsion	3-0-0	3
<b>3</b>	MET 522	Gas Dynamics	3-0-0	3
<b>4</b>	MET 524	Wind Energy Technology	3-0-0	3
<b>Elective -V</b>				
<b>1</b>	MET 605	Optimum Design of Thermal Systems	3-0-0	3
<b>2</b>	MET 607	Heat Exchanger Analysis and Design	3-0-0	3
<b>3</b>	MET 611	Experimental Methods in Thermal Engineering	3-0-0	3
<b>4</b>	MED 609	Design of Process Equipments	3-0-0	3