

**I M.TECH. THERMAL ENGINEERING**

**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	ME85001	Advanced Thermodynamics	3	-	-	3	-	70	30	-	-	100
2	ME85002	Advanced Fluid Dynamics	3	-	-	3	-	70	30	-	-	100
3	ME85003	Advanced Heat Transfer	3	-	-	3	-	70	30	-	-	100
4		Elective-I	3	-	-	3	-	70	30	-	-	100
5		Elective-II	3	-	-	3	-	70	30	-	-	100
6	ME85453	Advanced Fluid Dynamics Lab.	-	-	4	-	2	-	-	40	60	100
7	ME85454	Heat Transfer and Thermodynamics Lab.	-	-	4	-	2	-	-	40	60	100
9	ME85498	<b>Comprehensive Viva</b>	-	-	-	-	-	-	-	-	<b>100</b>	<b>100</b>
<b>Total</b>			15	0	8	15	4	350	150	80	220	800

**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	ME85504	Design of Solar and Wind System	3	-	-	3	-	70	30	-	-	100
2	ME85502	Computational Fluid Dynamics	3	-	-	3	-	70	30	-	-	100
3	ME85505	Steam Engineering	3	-	-	3	-	70	30	-	-	100
4		Elective-III	3	-	-	3	-	70	30	-	-	100
5		Elective-IV	3	-	-	3	-	70	30	-	-	100
6	ME85853	Solar, Wind and Thermal System Lab.	-	-	4	-	2	-	-	40	60	100
7	ME85854	CFD Lab.	-	-	2	-	1	-	-	40	60	100
8	ME85882	Minor Project/Seminar-I	-	-	2	-	1	-	-	50	-	50
9	ME85898	<b>Comprehensive Viva</b>	-	-	-	-	-	-	-	-	<b>100</b>	<b>100</b>
<b>Total</b>			15	0	8	15	4	350	150	130	220	850

### I M.TECH. THERMAL ENGINEERING

#### List of Elective

Elective - I		Semester I
S.No	Subject Code	Subject
1	MA85201	Advanced Mathematical Methods in Engineering
2	ME85202	Finite Element Analysis
3	ME85203	Advance Engineering Materials
4	ME85206	Refrigeration and Cryogenics

Elective - II		Semester I
S.No	Subject Code	Subject
1	ME85304	Modelling of IC Engines
2	ME85305	Automotive Technologies
3	ME85306	Energy Conservation and Management
4	ME85307	Hydraulic and Pneumatic Control

#### List of Elective

Elective -III		Semester II
S.No	Subject Code	Subject
1	ME85701	Air Conditioning System Design
2	ME85705	Mechatronics and Automation
3	ME85706	Design of Thermal System
4	ME85707	Turbo Machinery

Elective -IV		Semester II
S.No	Subject Code	Subject
1	ME85752	Waste to Energy
2	ME85755	Lubrication Theory and Practice
3	ME85756	Optimisation Techniques
4	ME85757	Quantitative Techniques

### II M.TECH. THERMAL ENGINEERING

#### 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	ME8593 1	* Industrial Training/Term Paper/Seminar-II	-	-	8	-	4	-	-	50	-	50
2	ME8593 2	Dissertation Phase-I	-	-	20	-	10	-	-	40	60	100
3	MA8590 2	**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	ME8595 2	Dissertation Phase-II	-	-	32	-	16	-	-	80	120	200
<b>Total</b>			0	0	32	0	16	0	0	80	120	200