

K L E F
Department of Mechanical Engineering
M.Tech-Thermal Engineering 2018-19 Course Structure

First Year (First Semester):

S. No.	Course Code	Course Title	Periods			Contact Hours	Credits
			L	T	P		
1	18 ME 5109	Numerical Methods in Thermal engineering	3	1	0	4	4
2	18 ME 5110	Advanced Thermodynamics	3	1	0	4	4
3	18 ME 5111	Design of Thermal Systems	3	1	0	4	4
4	18 ME 5112	Advanced Heat and Mass Transfer	3	1	0	4	4
5		Elective – 1	3	0	0	3	3
6		Elective - 2	3	0	0	3	3
7	18 IE 5149	Seminar	0	0	4	4	2
Total			18	4	4	26	24

First Year (Second Semester):

S. No.	Course Code	Course Title	Periods			Contact Hours	Credits
			L	T	P		
1	18 ME 5213	Incompressible and Compressible Flows	3	1	0	4	4
2	18 ME 5214	Computational Fluid Dynamics	3	0	2	5	4
3	18 ME5215	Refrigeration and Cryogenics	3	1	0	4	4
4	18 ME 5216	Measurements in Thermal Engineering	3	1	0	4	4
5		Elective – 3	3	0	0	3	3
6		Elective - 4	3	0	0	3	3
7	18 IE 5250	Term Paper	0	0	4	4	2
Total			18	3	6	27	24

Second Year (First & Second Semester):

S.No	Course code	Course Title	Periods			Credits
			L	T	P	
1	18 IE 6050	Dissertation	0	0	72	36

ELECTIVE COURSES

S.No	Course code	Course Title	Periods			Credits
			L	T	P	
Elective-1						
1	18 ME 51E1	Heat Exchanger Design	3	0	0	3
2	18 ME 51E2	Convection and Two-Phase Flow	3	0	0	3
3	18 ME 51E3	Compact Heat Exchangers	3	0	0	3
Elective-2						
1	18 ME 51F1	Engine Systems and Performance	3	0	0	3
2	18 ME 51F2	IC Engine Combustion and Pollution	3	0	0	3
3	18 ME 51F3	Alternative Fuels	3	0	0	3
Elective-3						
1	18 ME 52G1	Principles of Turbo-machinery	3	0	0	3
2	18 ME 52G2	Gas Turbine Engineering	3	0	0	3
3	18 ME 52G3	Turbo-Compressors	3	0	0	3
Elective-4						
1	18 ME 52H1	Energy Conservation, Management & Audit	3	0	0	3
2	18 ME 52H2	Renewable Energy Technology	3	0	0	3
3	18 ME 52H3	Solar Energy and Wind Energy	3	0	0	3