

## Scheme for M. Tech: HEAT POWER ENGINEERING

Heat Power Engineering First Semester					
Sr.No.	Course Code	Course Name	Type DC/DE	Structure	Credits
1	MEL512	Engineering Thermodynamics and Combustion	DC	3+0+0	3
2	MEL511	Fluid Dynamics	DC	3+0+0	3
3	MEL438	Adv. Refrigeration and Air Conditioning		3+0+0	3
4	MEP438	Adv. Refrigeration and Air Conditioning Lab		0+0+2	1
5	MEL417	Power Plant Engineering		3+0+0	3
Elective/OC (Any One)					
1	MEL435 MEP435	1. Computational Fluid Dynamics 2. Computational Fluid Dynamics Lab	DE	3+0+0 0+0+2	4 (3+1=4)
2	MEL422 MEP422	1. Mechatronics 2. Mechatronics Lab		3+0+0 0+0+2	
3	MEL528 MEP528	1. Gas Dynamics 2. Gas Dynamics Lab		3+0+0 0+0+2	
Total credits					17

Heat Power Engineering Second Semester					
Sr.No.	Course Code	Course Name	Type DC/DE	Structure	Credits
1	MEL430	Adv. IC Engine	DC	3+0+0	3
2	MEP430	Adv. IC Engine Lab	DC	0+0+2	1
3	MEL508	Energy management	DC	3+0+0	3
4	MEL444	Solar Energy Utilization	DC	3+0+0	3
5	MEL513	Adv. Heat Transfer	DC	3+0+0	3
6	MEP524	Heat and Mass Transfer Lab	DC	0+0+2	1
Elective/OC (Any One)					
1	MEL449	Adv. Turbo Machinery	DE	3+0+0	3
2	MEL443	Air Pollution and Control	DE		
3	MEL525	Multi Phase Flow	DE		
Total credits					17

Heat Power Engineering Third Semester					
Sr.No.	Course Code	Course Name	Type DC/DE	Structure	Credits
1	MED401	Project Phase – I	DC		3
Elective/OC (Any One From Each Group)					
1	MEL520 MEL509 MEL507	1. Bio Energy Conversion 2. Design and Optimisation of Thermal Energy systems 3. Advanced CFD	DE	3+0+0	3
2	MEL516 MEL525 MEL519	1. Fuel Cell Technology 2. Hydraulics and Pneumatics 3. Cryogenics	DE	3+0+0	3
3	MEP516 MEP525 MEP519	1. Fuel Cell Technology Lab 2. Hydraulics and Pneumatics Lab 3. Cryogenics Lab	DE	0+0+2	1
Total credits					10

Heat Power Engineering Fourth Semester					
Sr.No.	Course Code	Course Name	Type DC/DE	Structure	Credits
1	MED503	Project Phase - II	DC		9
Total credits					9

Total Credits (Semester wise)

Sr. No	Type	I Sem	IISem	IIISem	IVSem	Total
1	DC	13	14	3	9	39
2	DE	4	3	7	0	14