

DEPARTMENT OF MECHANICAL ENGINEERING
Curriculum and Scheme of Examination for M.Tech. Programme in

Energy Management

(With effect from the Academic Year 2006 – 2007)

FIRST SEMESTER

Code	Title	Hours Per Week				Credits
		L	T	P	S	
MAG604	Mathematical Methods	3	1	0	0	3
MED601	Energy Conversion Systems	3	1	0	0	3
MED602	Alternative Energy Utilization	3	1	0	0	3
EEG601	Electrical Energy Systems & Management	3	1	0	0	3
	Elective I	3	1	0	0	3
	Elective II	3	1	0	0	3
MED691	Computational Lab	0	0	3	0	2
MED692	Seminar I	0	0	0	3	1
TOTAL		18	6	3	3	21

SECOND SEMESTER

Code	Title	Hours Per Week				Credits
		L	T	P	S	
MED611	Design & Analysis of Energy Systems	3	1	0	0	3
MED612	Energy Conservation in Thermal Systems	3	1	0	0	3
MED613	Energy & Environment	3	1	0	0	3
MED614	Heat Transfer in Energy Systems	3	1	0	0	3
	Elective III	3	1	0	0	3
	Elective IV	3	1	0	0	3
MED693	Energy Management Lab	0	0	2	0	1
MED694	Seminar II	0	0	0	3	1
TOTAL		18	6	2	3	20

Elective Courses

Code	Title
MED621	Optimal Design of Heat Exchangers
MED622	Advanced Instrumentation
MED623	Energy Policies for Sustainable Development
MED624	Direct Energy Conversion
MED625	Fluidized Bed Systems
MED626	Heat Pump Technology

THIRD SEMESTER

Code	Title	Hours Per Week				Credits
		L	T	P	S	
MED795	Comprehensive Viva	-	-	-	-	1
MED796	M. Tech. Project	-	-	-	-	8
Total						9

FOURTH SEMESTER

Code	Title	Hours Per Week				Credits
		L	T	P	S	
MED797	M. Tech. Project	-	-	-	-	12
Total						12

* The weightage may vary from 40% to 60% and shall be decided by the Class Committee.

L = Lecture; T = Tutorial; P = Practical; S = Seminar

Note: In each of the First Two Semesters, one elective must be opted from the electives offered by the respective M. Tech. Programme of the parent department and the other, if desired, from the electives offered by any other Programme within the department or by any other department of the institute with equivalent credits and with the approval from the Programme Coordinator/Faculty Advisor. However, students may opt both the electives of a semester from the electives offered by the respective M. Tech. Programme.

Minimum Requirements

i)	Core Courses	: 8x3 = 24
ii)	Elective Courses	: 4x3 = 12
iii)	Laboratory Courses	: 2+1 = 3
iv)	Seminar	: 2x1 = 2
v)	Comprehensive Viva	: 1x1 = 1
vi)	Project (Part I & Part II)	: 8+12 = 20
	TOTAL	= 62