DEPARTMENT OF METALLURGICAL AND MATERIALS ENGINEERING

M.Tech. (Industrial Metallurgy)

Teaching Scheme					Contact Hours/Week			Exam Duration		Relative Weight (%)				
S. No.	Subject Code	Course Title	Subject Area	Credits	L	T	P	Theory	Practical	CWS	PRS	MTE	ETE	PRE
1st YEAR					**Semester- I (Autumn)**									
1.	MAN-501F	Numerical Methods, Probability and Statistics	PCC	4	3	1	0	3	0	25	-	25	50	-
2.	MTN-501	Structure of Materials	PCC	4	3	1	0	3	0	25	-	25	50	-
3.	MTN-503	Characterization of Materials	PCC	4	3	0	2	3	0	15	25	20	40	-
4.		Program Elective-I	PEC	4	3	1	0	3	0	25	-	25	50	-
5.		Program Elective-II	PEC	4	3	1	0	3	0	25	-	25	50	-
		Total		20	9	2	2							
Semester-II (Spring)														
1.	MTN-506	Materials Modeling and Simulation	PCC	4	3	0	2	3	0	10-25	25	15-25	30-40	-
2.	MTN-504	Phase Transformation	PCC	4	3	1	0	3	0	25	-	25	50	-
3.	MTN-700	Seminar	SEM	2	-	-	-	-	-	-	-	-	100	-
4.		Program Elective-III	PEC	4	3	1	0	3	0	25	-	25	50	-
5.		Program Elective-IV	PEC	4	3	1	0	3	0	25	-	25	50	-
		Total		18	6	1	2							
2nd YEAR					**Semester- I (Autumn)**									
1.	MTN-701A	Dissertation Stage–I (to be continued next semester)	DIS	12	-	-	-	-	-	-	-	-	100	-
		Total		12										
Note: Students can take 1 or 2 audit courses as advised by the supervisor, if required.														
Semester-II (Spring)														
1.	MTN-701B	Dissertation Stage–II (contd. From III semester)	DIS	18	-	-	-	-	-	-	-	-	100	-
		Total		18										
		Total Credits		**68**										

Program Elective Courses (Industrial Metallurgy)

Teaching Scheme					Contact Hours/Week			Exam Duration		Relative Weight (%)				
S. No.	Subject Code	Course Title	Subject Area	Credits	L	T	P	Theory	Practical	CWS	PRS	MTE	ETE	PRE
		Electives I-II (Autumn)												
1.	MTN-505	Non Destructive testing	PEC	4	3	1	0	3	0	25	-	25	50	-
2.	MTN-507	Casting and Solidification	PEC	4	3	1	0	3	0	25	-	25	50	-
3.	MTN-512	Joining of Materials	PEC	4	3	1	0	3	0	25	-	25	50	-
4.	MTN-518	Theory of Metal Forming	PEC	4	3	1	0	3	0	25	-	25	50	-
5.	MTN-522	Composite Materials	PEC	4	3	1	0	3	0	25	-	25	50	-
		Electives III-IV (Spring)												
6.	MTN-514	Powder Metallurgy	PEC	4	3	1	0	3	0	25	-	25	50	-
7.	MTN-516	Principles of Materials Selection	PEC	4	3	1	0	3	0	25	-	25	50	-
8.	MTN-526	Failure Analysis	PEC	4	3	1	0	3	0	25	-	25	50	-
9.	MTN-528	Tribology of Engineering Materials	PEC	4	3	1	0	3	0	25	-	25	50	-
10.	MTN-532	Corrosion Protection Methods	PEC	4	3	1	0	3	0	25	-	25	50	-
11.	MTN-548	Diffusion in Solids	PEC	4	3	1	0	3	0	20-35	-	20-30	40-50	-
12.	MTN-559	Defects In Crystalline Materials	PEC	4	3	1	0	3	0	20-35	-	20-30	40-50	-
13.	MTN-554 UG Structure	CRYSTALLOGRAPHIC TEXTURE	PEC	4	3	1	0	3	0	25	-	25	50	-