COURSES FOR 19 MT AND ONWARDS

S#	Course Code	Name of Subject	Credit Hour		Total Credit Hour	Max Marks		Total Marks
1ST SEMESTER			**Th**	**Pr**		**Th**	**Pr**	
1	MT131	Introduction to Engineering Materials	3	0	3	100	0	100
2	MT132	Applied Chemistry	2	1	3	50	50	100
3	MT133	Applied Physics	2	1	3	50	50	100
4	MTH108	Applied Calculus	3	0	3	100	00	100
5	IS111	Islamic studies	2	0	2	50	00	50
	SS104	Ethics (For Non-Muslims)						
6	PS106	Pakistan studies	2	0	2	50	00	50
		Total	**14**	**2**	**16**	**400**	**100**	**500**
S#	**Course Code**	**Name of Subject**	**Credit Hour**		**Total Credit Hour**	**Max Marks**		**Total Marks**
2ND SEMESTER			**Th**	**Pr**		**Th**	**Pr**	
1	MT135	Mineral Processing	2	1	3	50	50	100
2	MT136	Engineering Drawing and CAD	2	1	3	50	50	100
3	MTH125	Linear Algebra and Differential Equation	3	0	3	100	00	100
4	ENG101	Functional English	3	0	3	100	00	100
5	CS115	Introduction to Computing	2	1	3	50	50	100
6	ME176	Workshop Practice	0	2	2	0	50	50
		Total	**12**	**5**	**17**	**350**	**200**	**550**
S#	**Course Code**	**Name of Subject**	**Credit Hour**		**Total Credit Hour**	**Max Marks**		**Total Marks**
3RD SEMESTER			**Th**	**Pr**		**Th**	**Pr**	
1	MT231	Materials Thermodynamics	3	0	3	100	00	100
2	MT232	Physical Metallurgy-I	3	0	3	100	00	100
3	EE214	Industrial Safety & Environmental Engineering	3	0	3	100	00	100
4	ENG201	Communication Skills	3	0	3	100	00	100
5	ES292	Instrumentation & Control	2	1	3	50	50	100
		Total	**14**	**1**	**15**	**450**	**50**	**500**
S#	**Course Code**	**Name of Subject**	**Credit Hour**		**Total Credit Hour**	**Max Marks**		**Total Marks**
4TH SEMESTER			**Th**	**Pr**		**Th**	**Pr**	
1	MT234	Iron and Steel Making Technology	3	0	3	100	0	100
2	MT235	Non Ferrous Metallurgy	3	0	3	100	0	100
3	MT236	Mechanical Behavior of Materials	3	1	4	100	50	150
4	MT237	Engineering Ceramics & Glasses	3	0	3	100	0	100
5	MTH215	Numerical Methods & Computation	3	1	4	100	50	150
		Total	**15**	**2**	**17**	**500**	**100**	**600**

S#	Course Code	Name of Subject	Credit Hour		Total Credit Hour	Max Marks		Total Marks
5TH SEMESTER			**Th**	**Pr**		**Th**	**Pr**	
1	MT331	Inspection and Testing of Materials	3	1	4	100	50	150
2	MT332	Polymeric Materials	3	0	3	100	0	100
3	MT333	Physical Metallurgy-II	3	1	4	100	50	150
4	MT334	Advanced Steels	2	0	2	50	0	50
5	ENG301	Technical and Scientific Writing	2	0	2	50	0	50
6	MTH317	Statistics & Probability	3	0	3	100	0	100
		Total	**16**	**2**	**18**	**500**	**100**	**600**
S#	**Course Code**	**Name of Subject**	**Credit Hour**		**Total Credit Hour**	**Max Marks**		**Total Marks**
6TH SEMESTER			**Th**	**Pr**		**Th**	**Pr**	
1	MT336	Foundry Engineering	3	1	4	100	50	150
2	MT337	Powder Metallurgy	2	0	2	50	0	50
3	MT338	Manufacturing Processes	3	1	4	100	50	150
4	MT339	Welding & other Joining Processes	3	1	4	100	50	150
5	MT340	Corrosion & Protection	3	1	4	100	50	150
6	MT341	Composite Materials	2	0	2	50	0	50
		Total	**14**	**4**	**18**	**450**	**200**	**650**
S#	**Course Code**	**Name of Subject**	**Credit Hour**		**Total Credit Hour**	**Max Marks**		**Total Marks**
7TH SEMESTER			**Th**	**Pr**		**Th**	**Pr**	
1	MT431	Heat Treatment Processes	3	1	4	100	50	150
2	MT432	Advanced Materials & Nanotechnology	3	0	3	100	0	100
3	MT433	Nuclear Metallurgy & Materials	2	0	2	50	0	50
4	MT434	Research Methodology	2	0	2	50	0	50
5	MT435	Metallurgical Plants and Quality Control	2	0	2	50	0	50
6	MT499	Project	0	3	3	0	100	100
		Total	**14**	**4**	**18**	**400**	**150**	**550**
S#	**Course Code**	**Name of Subject**	**Credit Hour**		**Total Credit Hour**	**Max Marks**		**Total Marks**
8TH SEMESTER			**Th**	**Pr**		**Th**	**Pr**	
1	MT437	Fracture Mechanics and Failure Analysis	3	1	3	100	50	150
2	MT438	Design of Materials	2	0	2	50	0	50
3	MT439	Computational Materials Science	2	1	3	50	50	100
4	MT440	Tribology and Surface Engineering	2	0	2	50	0	50
5	INM491	Entrepreneurship and Marketing	3	0	3	100	0	100
7	MT499	Project	0	3	3	0	100	100
		Total	**12**	**5**	**16**	**350**	**200**	**550**