

**COURSES FOR 18 MT**

S#	Course Code	Name of Subject	Credit Hour		Total Credit Hour	Max Marks		Total Marks
			Th	Pr		Th	Pr	
<b>1<sup>ST</sup> SEMESTER</b>								
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
7	MT134	Basic Science Lab	0	1	1	0	50	50
<b>Total</b>			<b>14</b>	<b>2</b>	<b>16</b>	<b>400</b>	<b>100</b>	<b>500</b>
S#	Course Code	Name of Subject	Credit Hour		Total Credit Hour	Max Marks		Total Marks
			Th	Pr		Th	Pr	
<b>2<sup>ND</sup> SEMESTER</b>								
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
7	MT137	Mineral Processing Lab	0	1	1	0	50	50
<b>Total</b>			<b>12</b>	<b>5</b>	<b>17</b>	<b>350</b>	<b>200</b>	<b>550</b>
S#	Course Code	Name of Subject	Credit Hour		Total Credit Hour	Max Marks		Total Marks
			Th	Pr		Th	Pr	
<b>3<sup>RD</sup> SEMESTER</b>								
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
<b>Total</b>			<b>14</b>	<b>1</b>	<b>15</b>	<b>450</b>	<b>50</b>	<b>500</b>
S#	Course Code	Name of Subject	Credit Hour		Total Credit Hour	Max Marks		Total Marks
			Th	Pr		Th	Pr	
<b>4<sup>TH</sup> SEMESTER</b>								
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
<b>Total</b>			<b>15</b>	<b>2</b>	<b>17</b>	<b>500</b>	<b>100</b>	<b>600</b>



S#	Course Code	Name of Subject	Credit Hour		Total Credit Hour	Max Marks		Total Marks
			Th	Pr		Th	Pr	
<b>5<sup>TH</sup> SEMESTER</b>								
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
		<b>Total</b>	<b>16</b>	<b>2</b>	<b>18</b>	<b>500</b>	<b>100</b>	<b>600</b>
S#	Course Code	Name of Subject	Credit Hour		Total Credit Hour	Max Marks		Total Marks
			Th	Pr		Th	Pr	
<b>6<sup>TH</sup> SEMESTER</b>								
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
		<b>Total</b>	<b>14</b>	<b>4</b>	<b>18</b>	<b>450</b>	<b>200</b>	<b>650</b>
S#	Course Code	Name of Subject	Credit Hour		Total Credit Hour	Max Marks		Total Marks
			Th	Pr		Th	Pr	
<b>7<sup>TH</sup> SEMESTER</b>								
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
		<b>Total</b>	<b>14</b>	<b>4</b>	<b>18</b>	<b>400</b>	<b>150</b>	<b>550</b>
S#	Course Code	Name of Subject	Credit Hour		Total Credit Hour	Max Marks		Total Marks
			Th	Pr		Th	Pr	
<b>8<sup>TH</sup> SEMESTER</b>								
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
		<b>Total</b>	<b>12</b>	<b>5</b>	<b>16</b>	<b>350</b>	<b>200</b>	<b>550</b>