

**B. TECH (HONS.)  
IN  
METALLURGICAL AND MATERIALS ENGINEERING**

Course curriculum upto second semester is common with regular B.Tech (Hons.) in Metallurgical and Materials Engineering

**3<sup>rd</sup> Semester**

Sl. No.	Depth/ Breadth	Subject No.	Subject Name	L-T-P	Credit
1	D	MT21001	Metallurgical Thermodynamics and Kinetics	3-1-0	4
2	D	MT29001	Metallurgical Thermodynamics and Kinetics Lab	0-0-3	2
3	B		Breadth-I	3-0-0	3
4	D	MT21002	Introduction to Engineering Materials	3-1-0	4
5	D	MA20005	Partial Differential Equations	3-0-0	3
6	D	HS20001	Economics	3-0-0	3
7	D	MT29002	Introduction to Engineering Materials Lab	0-0-3	2
8	D	EA19003	EAA-III	0-0-3	1
<b>Total</b>				<b>15-2-9</b>	<b>22</b>

**4<sup>th</sup> Semester**

Sl. No.	Depth/ Breadth	Subject No.	Subject Name	L-T-P	Credit
1	D	MT21004	Principles of Extractive Metallurgy	3-1-0	4
2	D	MT21006	Materials Processing	3-0-0	3
3	D	MT29004	Materials Processing Lab	0-0-3	2
4	D	MT21008	Deformation Behaviour of Materials	3-1-0	4
5	D	EC21001	Basic Electronics	3-1-0	4
6	D	MA20004	Probability and Stochastic Processes	3-0-0	3
7	D	EC29001	Basic Electronics Lab	0-0-3	2
8	D	EA19004	EAA-IV	0-0-3	1
<b>Total</b>				<b>15-3-9</b>	<b>23</b>

### 5<sup>th</sup> Semester

Sl. No.	Depth/ Breadth	Subject No.	Subject Name	L-T-P	Credit
1	D	MT31003	Phase Transformation and Phase Equilibria	3-1-0	4
2	D	MT31005	Heat Treatment of Materials	3-0-0	3
3	D	MT39003	Heat Treatment of Materials Lab	0-0-3	2
4	D	MT31007	Creep, Fatigue and Fracture	3-0-0	3
5	D	MT31009	Mechanical Working of Materials	3-0-0	3
6	D	MT39005	Mechanical Testing and Working Lab	0-0-3	2
7	D	MT31011	Transport Phenomena in Metallurgical Processes	3-0-0	3
8	B		Breadth - II (IT)	3-0-0	3
<b>Total</b>				<b>18-1-6</b>	<b>23</b>

### 6<sup>th</sup> Semester

Sl. No.	Depth/ Breadth	Subject No.	Subject Name	L-T-P	Credit
1	D	MT31010	Iron Making and Steel Making	3-1-0	4
2	D	MT31012	Materials Characterization	3-0-0	3
3		MT39004	Materials Characterization Lab	0-0-3	2
4	D	MT31014	X-ray and Electron Microscopy	3-1-0	4
5		MT39006	X-ray and Electron Microscopy Lab	0-0-3	2
6	D		Elective - I	3-0-0	3
7	B		Breadth - III (IEM)	3-0-0	3
<b>Total</b>				<b>15-2-6</b>	<b>21</b>

### 7<sup>th</sup> Semester

Sl. No.	Depth/ Breadth	Subject No.	Subject Name	L-T-P	Credit
1	D	MT41013	Corrosion and Environmental Degradation of Materials	3-0-0	3
2	D	MT41015	Computer Applications in Metallurgical Processes	3-0-0	3
3	D		Elective - II	3-0-0	3
4	D		Elective - III	3-0-0	3
5	B		Breadth - IV (HSS)	3-0-0	3
6	D	MT48001	Industrial Training	0-0-0	2
7	D	MT47001	Project	0-0-6	4
<b>Total</b>				<b>15-2-6</b>	<b>21</b>

### 8<sup>th</sup> Semester

Sl. No.	Depth/ Breadth	Subject No.	Subject Name	L-T-P	Credit
1	D		Elective - IV	3-0-0	3
2	D		Elective - V	3-0-0	3
3	D		Elective - VI	3-0-0	3
4	B		Breadth - V	3-0-0	3
5	B		Breadth - VI	3-0-0	3
6	D	MT47002	Project	0-0-9	6
7	D	MT48002	Comprehensive viva-voce	0-0-0	2
<b>Total</b>				<b>15-0-9</b>	<b>23</b>

**NOTE :**            **L = Lecture**            **T = Tutorial**            **P = Practical**

#### Credit Distribution:

Semester	1	2	3	4	5	6	7	8	Total
Depth	24	24	19	23	20	18	18	17	163
Breadth	00	00	03	00	03	03	03	06	018
<b>Total Credits</b>									<b>181</b>

