

**MALAVIYA NATIONAL INSTITUTE OF TECHNOLOGY JAIPUR**  
**DEPARTMENT OF METALLURGICAL AND MATERIALS ENGINEERING**

Curriculum structure of B.Tech Programme (Odd Semesters)

Subject Code	Subject Name	Subject Type	Credits	Lecture	Tutorial	Practical	Nature of subject
<b>I SEMESTER</b>							
22MTT101	Introduction to Engineering Materials	Theory	3	3	0	0	PC
22MTT102	Fuels, Furnaces and Refractories	Theory	4	3	1	0	PC
<b>III SEMESTER</b>							
22MTT201	Electrometallurgy & Corrosion	Theory	4	3	1	0	PC
22MTT202	Foundry Technology	Theory	4	3	1	0	PC
22MTT203	Introduction to Extractive Metallurgy	Theory	4	3	1	0	PC
22MTT204	Mechanical Behaviour and Testing of Metals	Theory	4	3	1	0	PC
22MTT205	Metallurgical Thermodynamics and Kinetics	Theory	4	3	1	0	PC
22MTP206	Foundry Technology Lab	Practical	1	0	0	2	PC
22MTP207	Fuel, Furnaces and Refractories Lab	Practical	1	0	0	2	PC
22MTP208	Mineral processing lab	Practical	1	0	0	2	PC
22MTP209	Testing of Materials Lab	Practical	1	0	0	2	PC
<b>V SEMESTER</b>							
22MTT301	Introduction to Nanomaterials and Technology	Theory	3	3	0	0	PC
22MTT302	Materials Characterization	Theory	3	3	0	0	PC
22MTT303	Powder Metallurgy	Theory	3	3	0	0	PC
22MTT304	Principles of Heat Treatment	Theory	4	3	1	0	PC
22MTT305	Production of Sponge Iron and Ferroalloys	Theory	3	3	0	0	PC
22MTP306	Extractive Metallurgy and Thermodynamics Lab	Practical	1	0	0	2	PC

22MTP307	Heat Treatment and Thermodynamics Lab	Practical	1	0	0	2	PC
22MTP308	Materials Characterization Lab	Practical	1	0	0	2	PC
22MTP309	Powder Metallurgy Lab	Practical	1	0	0	2	PC
22MTT945	Design and selection of materials	Theory	3	3	0	0	PE
22MTT947	High Temperature Corrosion	Theory	3	3	0	0	PE
<b>VII SEMESTER</b>							
MTT405	Fracture & Failure	Theory	4	3	1	0	PE
MTT407	Composite Materials	Theory	4	3	1	0	PE
MTT415	Automotive Materials	Theory	4	3	1	0	PE
MTT417	Surface Coatings	Theory	4	3	1	0	PE
MTT216	Introduction to Nano Materials & Technology	Theory	4	3	1	0	OE
MTT217	Material Science and Technology	Theory	3	2	1	0	OE
MTT426	Functional Materials	Theory	4	3	1	0	OE