

**13.COURSES OF STUDY AND SCHEME OF ASSESSMENT
ME - INDUSTRIAL METALLURGY**

**2021 REGULATIONS
(Minimum No. of credits to be earned: 71*)**

Course Code	Course Title	Hours / Week			Credits	Maximum Marks			CAT
		Lecture	Tutorial	Practical		CA	FE	Total	
III SEMESTER									
21YN_	Professional Elective – IV	3	0	0	3	50	50	100	PE
21YN--	Open Elective	3	0	0	3	50	50	100	OE
21YN71	Project Work I	0	0	12	6	50	50	100	EEC
Total 18 hrs		6	0	12	12	150	150	300	
IV SEMESTER									
21YN81	Project Work II	0	0	24	12	50	50	100	EEC
Total 24 hrs		0	0	24	12	50	50	100	
PROFESSIONAL ELECTIVE THEORY COURSES (Four to be opted)									
21YN09	Thermodynamics of Materials	3	0	0	3	50	50	100	PE
21YN10	Characterization Techniques	3	0	0	3	50	50	100	PE
21YN11	Iron and Steel Making	3	0	0	3	50	50	100	PE
21YN12	Surface Degradation of Materials	3	0	0	3	50	50	100	PE
21YN13	Particulate Technology	3	0	0	3	50	50	100	PE
21YN14	Metallurgy of Steels	3	0	0	3	50	50	100	PE
21YN15	Metallurgy of NonFerrous alloys	3	0	0	3	50	50	100	PE
21YN16	Polymers and Ceramics	3	0	0	3	50	50	100	PE
21YN17	Composite Materials	3	0	0	3	50	50	100	PE
21YN18	BioMaterials	3	0	0	3	50	50	100	PE
21YN19	Emerging Materials	3	0	0	3	50	50	100	PE
21YN20	Heat Treatment of Alloys	3	0	0	3	50	50	100	PE
21YN21	Surface Modification Technology	3	0	0	3	50	50	100	PE
21YN22	Casting Simulation and Design	3	0	0	3	50	50	100	PE
21YN23	Quality Control in Foundries	3	0	0	3	50	50	100	PE
21YN24	Fundamentals of Solidification	3	0	0	3	50	50	100	PE
21YN25	Welding Procedures and Qualifications	3	0	0	3	50	50	100	PE

21YN26	Welding Application Technology	3	0	0	3	50	50	100	PE
21YN27	Nondestructive Testing	3	0	0	3	50	50	100	PE
21YN28	Advanced NDT Techniques	3	0	0	3	50	50	100	PE
21YN29	Additive Manufacturing	3	0	0	3	50	50	100	PE
21YN30	Material and Process Modeling	3	0	0	3	50	50	100	PE
21YN31	Materials Selection	3	0	0	3	50	50	100	PE

* Indicated is the minimum number of credits to be earned by a student

CAT – Category; PC – Professional Core; PE - Professional Elective; RMC- Research Methodology and IPR; EEC – Employability Enhancement Course; AC- Audit Course; OE – Open Elective; Grade – Completed / Not Completed