

			BRANCH- MECHANICAL (6th Sem)
		NAME-ER KUNI BEHERA	ADVANCED MANUFACTURING PROCESS
Week No.	Week Starting	Unit & Topic	Description
1	2-Jan-24	1.1 Introduction to Modern Machining	Definition, comparison with traditional machining.
2	8-Jan-24	1.2 Ultrasonic Machining (USM)	Principle, equipment, and applications of USM.
3	15-Jan-24	1.3 Electric Discharge Machining (EDM)	Principle, dielectric fluid, electrodes, process parameters, applications.
4	22-Jan-24	1.4 Wire-cut EDM	Principle, equipment, parameters, and applications.
5	29-Jan-24	1.5 Abrasive Jet & Laser Beam Machining	Principle, equipment, MRR, and applications of both processes.
6	5-Feb-24	1.6 Electro Chemical Machining (ECM)	Principle, equipment, MRR, and
7	12-Feb-24	1.7 Plasma Arc Machining (PAM)	Principle, equipment, MRR, parameters, performance, applications.
8	19-Feb-24	1.8 Electron Beam Machining (EBM)	Principle, equipment, process parameters, performance, applications.
9	26-Feb-24	2.0 Plastic Processing (Part 1)	Moulding methods: injection, compression, transfer moulding.
10	4-Mar-24	2.0 Plastic Processing (Part 2)	Extrusion, casting, calendaring, forming, blow moulding, laminating, applications.
11	11-Mar-24	3.0 Additive Manufacturing (Part 1)	AM basics, process chain, terms, classification, AM vs CNC.
12	18-Mar-24	3.0 Additive Manufacturing (Part 2)	AM applications in design, aerospace, auto, jewelry, bio-medical.
13	25-Mar-24	4.0 Special Purpose Machines (SPM)	Concept, elements, productivity, design principles.
14	1-Apr-24	5.0 Maintenance (Part 1)	Types of maintenance, repair cycle, repair complexity.
15	8-Apr-24	5.0 Maintenance (Part 2)	Maintenance manual, records, TPM,
16	15-Apr-24	Repeat Week – Class 1 & 2	Revisit: Modern Machining intro & Ultrasonic Machining.

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