Lesson Plan

Subject Advance Manufacturing Process (Code) TH-4(b) Name of faculty Er. Sangram Bishal
Semester 6th Semester Class allotted 4 (Week) Branch Mechanical Engg.
Session: 2022-23 (S)

Discipline / Subject: / Week	Semester / No. of days/per week / Date/Period	From Date: To date: Theory /Practical-topics / Lesson	Teaching Aid
1	14/02/23 to 17/02/23	Modern Machining Procss.: Introduction. Comparision with traditional Machining. Ultrasonic Machining. Principle. Description of equipment.	White Board & Marker
2	20/02/23 to 25/02/23	Application. Electric discharge. Machining principle. Description of Equipment. Dielectric fluid. Tools (electrodes) Process Parameters.	"
3	27/02/23 to 04/03/23	Output characteristics & application. Wire cut EDM. Principle. Description of equipment. controlling parameters. applications.	"
4	06/03/23 to 11/03/23	Abrasive Jet machining: principle. description of equipment, material removal rate. Application. Laser beam Machining. Principle, description of equipment, material removal rate & application.	"
5	13/03/23 to 18/03/23	Electro chemical M/cing. Principle, decription of equip. material removal rate & application. Plasma arc M/cing. Principle, description of Equipment material removal rate, & Application Performance characterised. Process parameters	"
6	20/03/23 to 25/03/23	Electron beam M/cing. Principle description of equipment, material removal rate, Process parameter, Performance characteristics & Application.	"
7	27/03/23 to 31/03/23	Plastic Processing., moulding process. Injection moulding. Compression moulding. Transfer moulding.	"

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8	03/04/23 to 08/04/23	Extruding. castings, Colonforming. fabrication methods - sheet forming, Blow moulding combinations plastic (sheets, rods & tube,) Reinforcement.	White Board & Marker
9	10/04/23 to 15/04/23	Application of plastics. Additive manufacturing process. Introduction. Needs for manufacturing. fundamentals of Additive Manufactory.	"
10	17/04/23 to 21/04/23	AM process chain Advantages & limitation of AM. Commonly used Terms	"
11	24/04/23 to 29/04/23	classification of AM process. Fundamentals Automated process. Distribution bet AM & CNC. other related technology.	"
12	01/05/23 to 06/05/23	Application in Design Aerospace Industries. Automotive Industry. Jewelery industry. Arts & Architecture. RP medical & Medical & Bioengineering Applications. Web Based Rapid Prototyping system	"
13	08/05/23 to 13/05/23	Concept of Flexible manufacturing process. Concurrent Engineering. Production tools like Capstan & turret lathes. Rapid phototyping process.	"
14	15/05/23 to 20/05/23	Special purpose m/c (SPM) Concept. General elements of SPM. Productivity improvement by SPM. ~~SPM~~ Principles of ~~design~~ SPM design.	"
15	22/05/23 to 23/05/23	Maintenance of M/C Tools. Types of maintenance. Rapid cycle analysis. Rapid Complexity. Maintenance Maintenance Record. Housekeeping. Introduction to Total Productive maintenance (TPM).	"

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