TITE DIPLOMA,TARABOI,KHURDA

DEPARTMENT OF MECHANICAL ENGINEERING

LESSON PLAN

DISCIPLINE:- MECHANICAL ENGINEERING

SEMESTER:- 6TH **FROM DATE :-** 14-02-2023 **TO DATE :** 23-05-2023

NAME OF THE TEACHING FACULTY:- Dr SARADA PRASAD PARIDA

SUBJCT- ADVANCE MANUFACTURING PROCESSES(TH 4b)

NO.OF PERIOD/PER WEEK CLASS ALLOTTED:- 4

TOTAL NO. OF CLASS AVAILABLE IN SEM:- 48

SL NO.	WEEK	CLASS DATE	NO. OF CLASS/DAY	TOPICS
1	WEEK-01	14-02-2023	1	Introduction – comparison with traditional machining
2		17-02-2023	2	Ultrasonic Machining: principle, Description of equipment, applications.
3				Electric Discharge Machining: Principle, Description of equipment
4	WEEK-02	20-02-2023	1	Dielectric fluid, tools (electrodes), Process parameters,
5		21-02-2023	1	Output characteristics, applications of EDM
6		24-02-2023	2	Wire cut EDM: Principle, Description of equipment
7				controlling parameters; applications of wire EDM
8	WEEK-03	27-02-2023	1	Abrasive Jet Machining: principle, description of equipment
9		28-02-2023	1	Material removal rate, application of AJM
10		03-03-2023	2	Laser Beam Machining: principle, description of equipment Material removal rate, application of LBM
11				
12	WEEK-04	06-03-2022	1	Electro Chemical Machining: principle, description of equipment
13		10-03-2023	2	Material removal rate, application
14				Plasma Arc Machining – principle, description of equipment
15	WEEK-05	13-03-2023	1	Material removal rate, Process parameters
16		14-03-2023	1	performance characterization, Applications
17		17-03-2023	2	Electron Beam Machining - principle description of equipment Material removal rate, Process parameters, performance characterization, Applications.
18				
19	WEEK-06	20-03-2023	1	Processing of plastics
20		21-03-2023	1	Moulding processes: Injection moulding, Compression moulding.
21		24-03-2023	2	Transfer moulding, Extruding; Casting; Calendering
22				
23	WEEK-07	27-03-2023	1	Fabrication methods-Sheet forming
24		28-03-2023	1	Blow moulding
25		31-03-2023	2	Laminating plastics (sheets, rods & tubes)
26				Reinforcing of Plastics, Applications of Plastics
27	WEEK-08	03-04-2023	1	Introduction, Need for Additive Manufacturing
28		04-04-2023	1	Fundamentals of Additive Manufacturing
29	WEEK-09	10-04-2023	1	Advantages and Limitations of AM, Commonly used Terms
30		11-04-2023	1	Classification of AM process, Fundamental Automated Processes,

31	WEEK-10	17-04-2023	1	Distinction between AM and CNC, other related technologies
32		18-04-2023	1	Application –Application in Design, Aerospace Industry
33		21-04-2023	2	Automotive Industry, Jewelry Industry, Arts and Architecture
34	WEEK-11	24-04-2023	1	RP Medical and Bioengineering Applications.
35		25-04-2023	1	Web Based Rapid Prototyping Systems.
36		28-04-2023	2	Concept of Flexible manufacturing process, concurrent engineering
37	WEEK-12	01-05-2023	1	production tools: lathes,
38		02-05-2023	1	Turret lathes
39	WEEK-13	08-05-2023	1	Rapid prototyping processes.
40		09-05-2023	1	Special Purpose Machines, Concept
41		12-05-2023	2	General elements of SPM, Productivity improvement by SPM, Principles of SPM design
42				
43	WEEK-14	15-05-2023	1	Maintenance of Machine Tools: concept,
44		16-05-2023	1	Types of maintenance,
45		18-05-2023	2	Repair cycle analysis, Repair complexity
46				Maintenance manual
47	WEEK-15	22-05-2023	1	Maintenance records, Housekeeping
48		23-05-2023	1	Introduction to Total Productive Maintenance (TPM)
Signature of concerned Faculty:				**Signature of H.O.D:**