



**Manufacturing Technology(Th-2)
Lesson Plan for the Academic Semester 2024(s)**

Discipline: Mechanical Engg.	Semester: 4 th	Name of the Faculty: Janmejy Rout
Subject: MT-(Th-2)	No. of days /per week class allotted: 4p/w	Academic Session-2023-2024(s) Semester from date: 16-01-2024
WEEK	PERIOD	Topic
1 ST	1 ST	Unit -1: Introduction of tool material 1.1-Composition of tool material
	2 ND	1.2-Physical properties of such type of tool material
	3 RD	Uses of such type of tool material
	4 TH	Details on various tool material and their application
2 ND	1 ST	Unit-2:-cutting tool 2.1-cutting action of various tool material
	2 ND	Chisel ,hacksaw blade, cutting action
	3 RD	Reamer cutting action
	4 TH	2.2-Turning tool geometry and purpose of tool angle
3 RD	1 ST	2.3- Machining process parameter
	2 ND	2.4-Coolant and Lubricants in machining and purpose
	3 RD	Unit-3:- Lathe machine 3.1-construction and working of CNC Lathe and Lathe
	4 TH	Major components and various operation on lathe
4 th	1 st	Safety major during machining
	2 nd	3.2-Capstan Lathe-Difference with respect to engine lathe
	3 rd	Major components and function of capstan lathe
	4 th	Definition of multiple tool holder
5 th	1 st	3.3- Turret Lathe different with respect to capstan lathe
	2 nd	3.4-Tooling layout for preparation of a hexagonal bolt and bush
	3 rd	Unit-4:- shaper 4.1-potential application of area of a shaper machine
	4 th	4.2- Major components and their functions
6 th	1 st	4.3- Explain the automatic feed mechanism
	2 nd	4.4-Explanation of construction of tool head
	3 rd	4.5- Explanation of quick return mechanism through sketch
	4 th	4.6-Specification of shaper machine

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7th	1st	Unit-5:-Planning Machine 5.1-Application of planner
	2nd	Difference with respect to shaper
	3rd	5.2- Major Components of planner and functions
	4th	5.3- Drive mechanism
8th	1st	5.4-Working of tool and tool support
	2nd	5.5-Clamping of work through sketch
	3rd	Unit-6:-Milling Machine 6.1- Types of milling machine
	4th	Various operation of milling machine
9th	1st	Application of milling machine
	2nd	Function and application of milling machine
	3rd	6.2- Working holding attachment
	4th	6.3-Construction working of simple dividing head
10th	1st	6.4- Procedure of simple and compound indexing
	2nd	6.5-Different illustration indexing method
	3rd	Unit-7:-Slotter 7.1-Major components of slotter
	4th	Major function of slotter
11th	1st	7.2-Construction of slotter machine
	2nd	Working principle of slotter machine
	3rd	7.3- Tools are used in slotter
	4th	Application and various function of slotter
12th	1st	Unit-8:-Grinding 8.1-Variou grinding operation
	2nd	8.2- Manufacturing of grinding wheel
	3rd	8.3-Selection grinding wheel
	4th	8.4- Specification of grinding wheel
13th	1st	Cylindrical grinder , surface grinder
	2nd	Center less grinder
	3rd	Unit-9:-Internal Machining Operation 9.1-Bench pillar drilling machine
	4th	Radial drilling machine
14th	1st	9.2- Basic principle of boring
	2nd	Different between boring and drilling
	3rd	9.3-Broching types and pull types
	4th	Push types
15th	1st	Advantages of broaching and application
	2nd	Unit-10:-Surface Finishing and Lapping 10.1- definition of surface finish
	3rd	10.2-Description of lapping
	4th	Specific cutting of Lapping

Created
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