

LESSON PLAN

SUB: MANUFACTURING TECHNOLOGY

BRANCH:- MECHANICAL ENGG.

SEMESTER: 4th

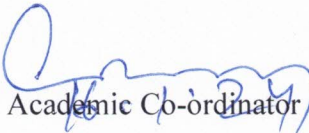
NAME OF FACULTY: ER. SANTANU KU. DUTTA

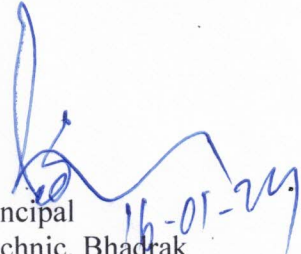


**GOVERNMENT POLYTECHNIC,
BHADRAK**

SESSION:2023-24


Hod ,Mechanical



Academic Co-ordinator

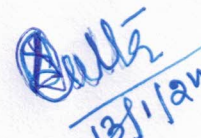

Principal
Govt. Polytechnic, Bhadrak

Discipline: Dept. Of Mechanical Engineering.	Semester: 4th	Name of the Teaching Faculty: Sri Santanu Kumar Dutta (Workshop Suptd.)
Subject: TH-2 Manufacturing Technology	No. of Days / Per Week -4P/W Class Allotted: 60	Semester From date: 16/01/2024 To Date: 26/04/2024 No. Of Weeks- 16
Week	Class Day	Theory / Practical Topics
1st	1st	1.1 Composition of various tool materials
	2nd	Continue
	3rd	1.2 Physical properties & uses of such tool materials.
2ND	1st	Continue
	2nd	2.1 Cutting action of various and tools such as Chisel, hacksaw blade, dies and reamer
	3rd	continue
3RD	1st	2.2 Turning tool geometry and purpose of tool angle
	2nd	2.3 Coolants and lubricants in machining and purpose continue
	1st	3.1 Construction and working of lathe and CNC lathe continue
4TH	2nd	3.2 Capstan lathe continue
	1st	3.3 Turret Lathe continue
	2nd	3.4 Draw the tooling layout for preparation of a hexagonal bolt & bush
5TH	3rd	4.0 Potential application areas of a shaper machine 4.1 Major components and their function
	4th	4.2 Explain the automatic table feed mechanism
	1st	4.3 Explain the construction & working of tool head
	2nd	4.4 Explain the quick return mechanism through sketch 4.5 State the specification of a shaping machine
6TH	3rd	5.1 Application area of a planer and its difference with respect to shaper continue
	4th	5.2 Major components and their functions
	1st	5.3 The table drive mechanism 5.4 Working of tool and tool support
7TH	2nd	5.4 Clamping of work through sketch.

	3rd	6.1 Types of milling machine and operations performed by them and also same for CNC milling machine
8TH	1st	6.2 Explain work holding attachment continue
9TH	1st	6.3 Construction & working of simple dividing head, universal dividing head continue
	2nd	6.4 Procedure of simple and compound indexing 6.5 Illustration of different indexing methods assignment
	3rd	7.1 Major components and their function
10TH	1st	continue
	2nd	7.2 Construction and working of slotter machine continue
	3rd	7.3 Tools used in slotter continue
	4th	8.1 Significance of grinding operations continue
11TH	1st	8.2 Manufacturing of grinding wheels
	2nd	8.3 Criteria for selecting of grinding wheels
	3rd	8.4 Specification of grinding wheels with example Working of assignment
	4th	9.1 Working of <ul style="list-style-type: none"> • Bench drilling machine • Pillar drilling machine • Radial drilling machine
12TH	1st	Continue
	2nd	9.2 Boring <ul style="list-style-type: none"> • Basic Principle of Boring Different between Boring and drilling
13TH	1st	Continue
	2nd	9.3 Broaching <ul style="list-style-type: none"> • Types of Broaching(pull type, push type) • Advantages of Broaching and applications
	3rd	Continue
14TH	1st	Definition of Surface finish
	2nd	Continue
	3rd	Description of lapping& explain their specific cutting
15TH	1st	Continue

	2nd	Assignment
	3rd	Assignment
	4th	Assignment
16TH	1st	Assignment
	2nd	Assignment
	3rd	Assignment


HOD, Mech.


13/1/24
(w/s - Suptd.)