

BHUBANANANDA ODISHA SCHOOL OF ENGINEERING, CUTTACK
DEPARTMENT OF MECHANICAL ENGINEERING



LESSON PLAN

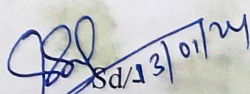
SUBJECT: MANUFACTURING TECHNOLOGY

FACULTY: MR. BISWANATH PRADHAN

ACCADEMIC SESSION: 2023-24

SEMESTER: 4th

SEC: **A**


HOD (MechEngg.)

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Discipline: Mechanical Engineering	Semester: 4th A		Name of the teaching faculty: Biswanathpradhan
Subject: Manufacturing technology	No. of Days/ per week class allotted: 04 periods per week (Mon-1 period, Tues-1 period, Wed-1 period, Fri - 1 period)		Semester From Date: 16-01-2024 To Date: 26-04-2023 No. of weeks: 15 weeks
Week	Class Day	No of period available	Theory Topics
1ST	16/01/2024	1	1.CUTTING TOOL Types of tools
	17/01/2024	1	1.1Composition of various tool material
	19/01/2024	1	1.2 Physical properties & uses of tool materials
2ND	22/01/2024	1	1.2 Physical properties & uses of tool materials
	24/01/2024	1	2. Cutting tools Types of cutting tools
3RD	29/01/2024	1	2.1 Cutting action of various tools such as Hacksaw blades, chisel, Dies, reamers
	30/01/2024	1	2.2 Turning tool geometry and purpose of tool angles
	31/01/2024	1	2.3 Machining process parameter(speed, feed, depth of cut) 2.4 Coolants and lubricants in machining process
	02/02/2024	1	3.Lathe machine 3.1 Construction & working of lathe machine.
4TH	05/02/2024	1	3.1Major components of lathe machine 3.1.1 operation carried out in lathe machine
	06/02/2024	1	3.1.1 operation carried out in lathe machine

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			Machining parameter.
	07/02/2024	1	3.1.2 safety measures during machining
	09/02/2024	1	3.2 Major components of Capstan lathe
5TH	12/02/2024	1	3.2 Difference with respect to engine lathe.
	13/02/2024	1	3.3 Turret Lathe Difference with respect to capstan lathe
	16/02/2024	1	3.4 Draw the tooling layout for preparation of a hexagon bolt & bush
6TH	19/02/2024	1	4. Shaper machine 4.1 Potential application areas of shaper machine
	20/02/2024	1	4.2 Major components & their function of shaper machine
	21/02/2024	1	4.3 Explain the automatic table feed mechanism
	23/02/2024	1	4 Explain the construction & working of tool head.
7TH	26/02/2024	1	4.5 Explain the quick return mechanism
	27/02/2024	1	4.6 State the specification of shaper machine
	28/02/2024	1	Class Test 1
	01/03/2024	1	5.1 Application area of a planer and its difference with respect to shaper
8TH	04/03/2024	1	5.2 Major components and their functions
	05/03/2024	1	5.3 The table drive mechanism

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	06/03/2024	1	5.4 Working of tool and tool support
9 TH	11/03/2024	1	5.5 Clamping of work through sketch.
	12/03/2024	1	5.5 Clamping of work through sketch.
	13/03/2024	1	Milling Machine 6.1 Types of milling machine and operations performed by them and also same for CNC milling machine
	15/03/2024	1	6.1 Types of milling machine and operations performed by them and also same for CNC milling machine
10 TH	18/03/2024	1	6.2 Explain work holding attachment
	19/03/2024	1	6.3 Construction & working of simple dividing head,
	20/03/2024	1	6.3 Construction & working of universal dividing head
	22/03/2024	1	6.4 Procedure of simple indexing
11 TH	27/03/2024	1	6.4 Procedure of compound Indexing 6.5 Illustration of different indexing methods
12 TH	02/04/2024	1	Slotter Machine 7.1 Major components and their function
	03/04/2024	1	Internal assessment
	05/04/2024	1	Internal assessment
13 TH	08/04/2024	1	7.2 Construction and working of slotter machine
	09/04/2024	1	7.3 Tools used in slotter
	10/04/2024	1	Grinding Machine 8.1 Significance of grinding operations
	12/04/2024	1	8.2 Manufacturing of grinding wheels 8.3 Criteria for selecting of grinding wheel.

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14 TH	15/04/2024	1	8.4 Specification of grinding wheels with example Working of Cylindrical Grinder
	16/04/2024	1	8.4 Specification of grinding wheels with example Working of Surface Grinder, Centre less Grinder
	19/04/2024	1	9.Internal Machining operations Classification of drilling machines 9.1 Working of Bench drilling machine
15 TH	22/04/2024	1	9.1 Pillar drilling machine Radial drilling machine
	23/04/2024	1	9.2 Boring Basic Principle of Boring Different between Boring and drilling 9.3 Broaching Types of Broaching(pull type, push type) Advantages of Broaching and applications
	24/04/2024	1	10 Surface finish, lapping 10.1 Definition of Surface finish 10.2 Description of lapping& explain their specific cutting.
	26/04/2024	1	10 Surface finish, lapping 10.1 Definition of Surface finish 10.2 Description of lapping& explain their specific cutting.