

GOVT. POLYTECHNIC MAYURBHANJ				
ACADEMIC SESSION-2023-24		LESSON PLAN		
Discipline : Mechanical Engg.		Semester: 4th Sem	Name of the Teaching Faculty : Mihir mohanta	
Subject : Manufacturing Technology		No. of Days / per week class allotted : 04	Semester From date :16.01.2024 To Date : 26.04.2024	
MONTH	Week	Day	Topics	
JANUARY	3RD	2ND	Tool Materials : Composition of various tool materials , Physical properties& uses of such tool materials.	
		3RD	Cutting Tools: Cutting action of various and tools such as Chisel, hacksaw blade, dies and reamer	
		3RD	Turning tool geometry ,purpose of tool angle	
	4TH	1ST	Machining process parameters (Speed, feed and depth of cut) Coolants and lubricants in machining and purpose.	
		3RD	Revision	
		3RD	Lathe Machine: Construction and working of lathe and CNC lathe , Major components of a lathe and their function	
	5TH	1ST	Operations carried out in a lathe(Turning, thread cutting, taper turning, internal machining)	
		2ND	parting off, facing, knurling ,Define multiple tool holders	
		3RD	Capstan lathe: Difference with respect to engine lathe ,Major components and their function	
		3RD	Define multiple tool holders	
	6TH	1ST	Turret Lathe: Difference with respect to capstan lathe and Major components and their function	
		2ND	Draw the tooling layout for preparation of a hexagonal bolt &bush	
		3RD	Revision	
		3RD	Shaper : Potential application areas of a shaper machine, 4.2 Major components and their function	
	FEBRUARY	2ND	1ST	Explain the automatic able feed mechanism,
			2ND	Explain the construction &working of tool head
3RD			Explain the quick return mechanism through sketch	
3RD			Explain the quick return mechanism through sketch	
3RD		1ST	Revision	
		2ND	Planning Machine : Application area of a planer and its difference with respect to shaper, 5.2 Major components and their functions	
4TH		1ST	The table drive mechanism,	
		2ND	Working of tool and tool support	
		3RD	Clamping of work through sketch	
		3RD	Revision	
5th		1ST	Milling Machine: Types of milling machine and operations performed by them and also same for CNC milling machine	
		2ND	Explain work holding attachment, Construction & working of simple dividing head,	
		3RD	Construction & working of simple dividing head,	

		3RD	Construction & working of Universal dividing head
MARCH	2ND	1ST	Procedure of simple indexing
		3RD	Procedure of compound indexing
		3RD	Illustration of different indexing methods
		3RD	
	3RD	1ST	Revision
		2ND	Slotter : Major components and their function,
		3RD	Construction and working of slotter machine, 7.3 Tools used in slotter
		3RD	Revision
	4TH	1ST	Grinding : Significance of grinding operations, Manufacturing of grinding wheels
		2ND	Criteria for selecting of grinding wheels, Specification of grinding wheels
		3RD	With example Working of ,Cylindrical Grinder, Surface Grinder
		3RD	With example Working of Centreless Grinder
	5TH	3RD	Revision
3RD		Internal Machining operations : Classification of drilling machines, Working of Bench drilling machine	
APRIL	1ST	2ND	Pillar drilling machine
		3RD	Radial drilling machine
		3RD	Boring :Basic Principle of Boring
		3RD	
	2ND	1ST	Different between Boring and drilling
		2ND	Broaching : Types of Broaching(pull type)
		3RD	Push type Broaching ,Advantages of Broaching and applications
		3RD	Revision
	3RD	1ST	Surface finish, lapping : Definition of Surface finish
		2ND	Description of lapping& explain their specific cutting
	4TH	1ST	Revision
		2ND	Revision
		3RD	Class test - 2
3RD		Class test - 2	

HOD, Mechanical
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Subject Expert
Govt. Polytechnic Mayurbhanj

Academic Co-Ordinator
Govt. Polytechnic Mayurbhanj