GOVT. POLYTECHNIC BOLANGIR
LESSON PLAN

Discipline : AUTOMOBILE	Semester: 4TH	Name of the Teaching Faculty : SNEHASIS SAHOO
Subject : MANUFACTRURING TECHNOLOGY	No. of Days / per week class allotted :	Semester From date : 14.02.2023 To Date : 23.05.2023 No. of Weesks : 13
Week	**Class Day**	**Topics**
3RD FEB	1st	Tool Materials- Composition of various tool materials
	2nd	Physical properties & uses of such tool materials
	3rd	Physical properties & uses of such tool materials
	4th	Cutting Tools - Cutting action of various hand tools such as Chisel, hack saw blade, dies and reamer
4TH FEB	1st	Cutting action of various hand tools such as dies and reamer
	2nd	Turning tool geometry and purpose of tool angle
	3rd	Machining process parameters (Speed, feed and depth of cut)
	4th	Coolants and lubricants in machining and purpose
1ST MAR	1st	Lathe Machine - Construction and working of lathe
	2nd	Major components of a lathe and their function
	3rd	Operations carried out in a lathe - Turning, thread cutting ,
	4th	taper turning, internal machining, parting off, facing, knurling)
2ND MAR	1st	Safety measures during machining
	2nd	Capstan lathe
	3rd	Difference with respect to engine lathe
	4th	Major components and their function , Define multiple tool holders
3RD MAR	1st	Turret Lathe
	2nd	Difference with respect to capstan lathe ,
	3rd	Major components and their function
	4th	Draw the tooling lay out for preparation of a hexagonal bolt & bush
4TH MAR	1st	Shaper - Potential application areas of a shaper machine
	2nd	Major components and their function
	3rd	Explain the automatic table feed mechanism
	4th	Explain the construction & working of tool head

1ST APRIL	1st	Explain the quick return mechanism through sketch
	2nd	State the specification of a shaping machine
	3rd	Planning Machine
	4th	Application area of a planar and its difference with respect to shaper
2ND APRIL	1st	Major components and their functions
	2nd	The table drive mechanism
	3rd	Working of tool and tool support
	4th	Clamping of work through sketch
3RD APRIL	1st	Milling Machine
	2nd	Types of milling machine and operations performed by them
	3rd	Explain work holding attachment
	4th	Construction & working of simple dividing head, universal dividing head
4TH APRIL	1st	**Internal Assement**
	2nd	Procedure of simple and compound indexing
	3rd	Illustration of different indexing methods
	4th	Slotter Machine
1ST MAY	1st	Major components and their function
	2nd	Construction and working of slotter machine
	3rd	Tools used in slotter
	4th	Grinding-Significance of grinding operations
2ND MAY	1st	Manufacturing of grinding wheels
	2nd	Criteria for selecting of grinding wheels
	3rd	Specification of grinding wheels with example Working of Cylindrical Grinder, Surface Grinder , Centre less Grinder
	4th	Internal Machining operations-Classification of drilling machines , Working of - Bench drilling machine , Pillar drilling machine , Radial drilling machine
3RD MAY	1st	Boring - Basic Principle of Boring , Different between Boring and drilling
	2nd	Broaching - Types of Broaching (pull type, push type) , Advantages of Broaching and applications
	3rd	Surface finish, lapping - Definition of Surface finish , Define super finishing
	4th	Description of lapping & explain their specific cutting