PLANNED SYLLABUS COVERAGE

"PVCNSSK" G.P Bilaspur	Department: Mechanical Engg. Subject – Manufacturing Technology-					
	Course - Diploma		Duration – 3 Years			
SYLLABUS COVERAGE	Total Periods -56		Theory –56 hours			
Sr No	**Period Nos**	**Topic**	**Details**	**Instruction Reference**	**Additional Study Recommended**	**Remarks**
1	**1-16**	**Turning**	1.1 Principles of turning 1.2 Description and function of main parts of lathe 1.3 Specification of lathe 1.4 Drives and transmission 1.5 Work holding devices 1.6 Lathe tools, tool signature, Single point cutting tool geometry 1.7 Lathe Operations-Plain and step turning, facing, parting off, taper turning, eccentric turning, drilling, reaming, boring, threading and knurling. 1.8 Cutting parameters-speed, feed and depth of cut 1.9 Speed ratio, preferred numbers of speed selection 1.10 Cutting fluid- its purpose and types 1.11 Lathe accessories (Steady rest, taper turning attachment, tool post grinder) 1.12 Brief description and applications of capstan and turret lathes.	Production Technology by OP Khana Workshop Technology by R.S Khurmi		
2.	**17-22**	**Drilling**	2.1 Principle of drilling 2.2 Classification of drilling machine and their description 2.3 Operations performed on drilling machines- drilling, reaming, counter boring, counter sinking, tapping. 2.4 Speeds and feeds in drilling and other operations. 2.5 Types of drills and their features 2.6 Drill holding and work holding devices.	-----do----		

SYLLABUS COVERAGE		Total Periods:56		Theory:56		
Sr No	**Period Nos**	**Topic**	**Details**	**Instruction Reference**	**Additional Study Recommended**	**Remarks**
3	23-28	**Boring**	3.1 Principle of boring 3.2 Classification of boring machines and their description 3.3 Specification of boring machine 3.4 Boring tools 3.5 Boring bars and boring heads 3.6 Alignment of bores and its importance	Workshop Technology by BS Raghuvanshi,		
4	29-38	**Shaping, Planning and Slotting**	4.1 Working principle of shaper, planer and slotter 4.2 Quick return mechanism 4.3 Types of tools used and their geometry 4.4 Specifications of shaper, planer and slotting machine 4.5 Speeds and feeds in above processes.	Elements of Workshop Technology by SK Chaudhary &Hajra,		
5	39-56	**Foundry Practices**	5.1 Pattern making 5.1.1 Types of patterns 5.1.2 Pattern materials 5.1.3 Pattern allowances 5.1.4 Colour coding of patterns 5.1.5 Introduction to cores 5.1.6 Core materials and types of cores 5.2 Moulding 5.2.1 Introduction to moulding 5.2.2 Types of moulding sand and additives, their properties 5.2.3 Sand mixing and mould preparation 5.2.4 Casting defects - causes and their remedies 5.3 Melting and pouring 5.3.1 Types of melting furnaces -: Pit furnace, Cupola, Reverberatory and Electric melting furnace 5.3.2 Closing and pouring of mould 5.4 Special casting methods	----do----		

APPROVED	SIGN HOD
DATE :- 14/9/2021	