

**"PVC" NSSK GOVT POLYTECHNIC BILASPUR**  
**PLANNED THEORY SYLLABUS COVERAGE**

Department: Mechanical Engg.			Subject: Manufacturing Technology-III			
Sem. & Branch: 5th / Mech. Engg.			Duration: 3 Year			
<b>Syllabus coverage</b>		Total periods:-42			Practical : Yes	
SR. NO	Period no	Topic	Details	Instruction Reference	Additional study	Remarks
1	1-13	Milling	Introduction to milling ; Types of milling machines ; Constructional features of Knee and Column type milling machine ; Specifications of milling machine ; Milling operations- plain, angular, form, straddle and gang milling ; Milling cutters - Geometry and types ; Cutting speed and feeds ; Indexing-simple, compound, differential and angular ; Job holding devices ; Introduction to machining centre.	workshop technology by SK Chaudhry and Hajra	1. Workshop Technology Vol I, II & III by Chapman 2. Manufacturing Technology -III by Eggle publication	
2	14-22	Presses and Press Tools	Types of Presses, their applications ; Types of dies ; Types of die sets ; Punches ; Pads ; Die clearance ; Stripper plates; Stops ; Pilots ; Stock Layout.			
3	23-28	Broaching	Introduction ; Types of broaching machines ; Types of broaches and their use.			
4	29-32	Metal Coating Processes	Metal spraying ; Galvanizing ; Electroplating and Anodizing.			
5	32-35	Gear Generating and Finishing Processes	Gear tooth elements ; Gear milling ;introduction to gear shaping; Working principle of gear shaping machine ; Working principle of gear hobbing machine ; Introduction to gear finishing operations			
6	36-42	Advanced Welding Techniques	Working principle, process details, equipment details, advantages, limitations and applications of: Thermit Welding ; MIG Welding ; TIG Welding ; Atomic hydrogen Welding ; Electron beam welding ; Laser beam welding ; Introduction to friction welding.			

Approved	Sign HOD/JOC
07/08/2023	<i>alvera</i>