

GOVERNMENT POLYTECHNIC JAJPUR
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DEPARTMENT OF PRECISION MANUFACTURING ENGINEERING
LESSON PLAN (2025-26)

Discipline: PME	Semester: 3rd	Name of the Teaching faculty: Manas Kumar Mishra
Subject: Workshop II	No of Days/Week class allotted: 2	Semester from Date: 14/07/25 To Date: 15/11/25 No of weeks: 18
Week	Class Day	Topics
1st	1st	Syllabus, Lesson plan, COs, Assessment process, Introduction to machine shop, safety in machine shop
	2nd	Study of various machines present in machine shop, Lathe-working principle, parts and their functions, operations.
2nd	1st	Shaper- working principle, parts and their functions, operations.
	2nd	universal Milling machine- working principle, parts and their functions, operations.
3rd	1st	Drilling machine- working principle, parts and their functions, operations.
	2nd	Grinding machine- working principle, parts and their functions, operations, Assessment
4th	1st	Introduction to NC, CNC, DNC
	2nd	Parts and their functions of CNC Lathe and CNC Milling.
5th	1st	Parts and their functions of CNC Lathe and CNC Milling.
	2nd	Safety, maintenance, G code and M Code.
6th	1st	Hot working and Cold working. Introduction to forging.
	2nd	Demonstration of different tools, equipment and machines in Forging shop.
7th	1st	Demonstration of different tools, equipment and machines in Forging shop.
	2nd	Job related to forging, Assessment
8th	1st	Introduction to fitting shop, safety, Tools and Equipment.
	2nd	Die and Punch assembly, Press tool, Repair and Maintenance.
9th	1st	One simple fitting job involving practice of chipping, filing, drilling
	2nd	One simple fitting job involving practice of chipping, filing, drilling, assessment.
10th	1st	Introduction to Carpentry, safety, Tools and Equipment.
	2nd	Various and tools and wood working machine, wood lathe.
11th	1st	One simple wooden job of any one joint (Tenon/Dove tail)
	2nd	One simple wooden job of any one joint (Tenon/Dove tail), Assessment
12th	1st	Introduction to foundry shop, safety, Tools, Equipment.
	2nd	pattern, sand mold casting process, Machines
13th	1st	One casting job using electric arc furnace
	2nd	One casting job using electric arc furnace, assessment
14th	1st	Introduction to welding, electrode, welding machine.
	2nd	SMAW, TIG, MIG
15th	1st	Gas welding, Resistance welding
	2nd	Forge welding, assessment
16th	1st	Left out experiments if any
	2nd	Left out experiments if any

Mishra
Sign of Teacher