

HARSIKUDA ENGINEERING SCHOOL, HARSIKUDA

DEPARTMENT OF WORKSHOP

Name of the Faculty Kavishree Purohit Himalaya Mehan	Session: 2022-23
Course code PTC 3b	Course Name: Workshop Practice
Semester: 1ST/2ND	Section: electrical(D,F), ETC & IT (F)
Branch: ELECTRICAL ENGG., ETC & IT	

Week	Period	Unit	Hour	Topic to be Covered
1	1.1	1	24	Demonstration of safety practices in the fitting shop.
	1.2			Select suitable holding & clamping devices for fitting jobs.
	1.3			Select suitable tools like- files, vice, chisels, punch, scriber, hammers, surface plate, V-block, try square, caliper etc.
2	1.4			Demonstrate the following operations: Sawing, Chipping, Fitting, Craping, Grinding, Marking, Reaming, Tapping, Drilling and Angular cutting
	3			1.5
1.6				Description, demonstration and practice of simple operation of hack saw straight and angular cutting.
3	1.7			Introduction and use of measuring tools used in fitting shop like steel rule, measuring tape, outside micrometer, vernier caliper and vernier height gauge
				4
5	2.1	2	18	
	2.2			Prepare surface development for the jobs according to the drawing.
	2.3			Cut M.S and G.P. sheets according to the surface development / drawing using standard sheet metal cutting tools.
6	2.4			Select hand tools for sheet metal work.
	2.5			Demonstrate the process of metal clamp joining
7	2.5			Job: Making of sheet metal joints.
				Job: Prepare a sheet metal tray or a funnel.
	3.1			Introduction about Safety precautions in welding.

8	3.2	3	24	Safety precautions in welding, safety equipments & its application in welding shop
9	3.3			Introduction to type of welding, common materials that can be welded, gas welding equipment, types of flame, adjustment of flame, applications of gas welding, Welding tools & safety precautions.
10	3.4			Introduction to electric arc welding (AC & DC), practice in setting current & voltage for striking proper arc, precautions while using electric arc welding. Applications of arc welding. Introduction to polarity & their use.
11	3.5			Demonstrate & use of the different tools used in the welding shop with sketches, Hand shield, helmet, clipping hammer, gloves, welding lead, connectors, aprons, googles etc.
11	3.6			Demonstrate of welding defects & various types of joints & end preparation. Job: Preparation of lap joint by arc welding rod . Job: Preparation of Tee joint by arc welding.
12	4.1	4	21	Introduction of Machine Shop
12	4.2			Safety precaution & safety equipments.
13	4.3			Various marking, measuring, cutting & holding tools.
13	4.4			Demonstration of different parts of a lathe, demonstration on centering & turning operation.
14	4.4			Job: plain turning, taper turning & grooving practices on round bar.
15	5	5	3	Exposure to Lathe C.N.C Milling/Lathe machine

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 Signature of the faculty

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