Discipline:- CIVIL ENGG.	SEM:-2ND	Name of Teaching Faculty:- Saurav Ranjan Pradhan
SUB:- WORKSHOP PRACTICE	No of Days /per week class allotted:-06	Semester From Date:-28.04.21 To Date:-10.07.21 No of Weeks-14
Week	**Class Day**	**Topics**
1ST	1ST	Safety practices in the fitting shop
	2ND	Holding & clamping devices for fitting jobs. Various tools like - files, vice, chisels, punch, scriber, hammers, surface plate, V- block, try square, caliper etc used in fitting shop
	3RD	Demonstration of following operations: Sawing, Chipping, Fitting, Craping, Grinding, Marking, Reaming, Tapping, Drilling & Angular cutting
2ND	1ST	Introduction of chipping, demonstration on chipping and its applications. Description, demonstration and practice of simple operation of hack saw straight and angular cutting
	2ND	Introduction and use of measuring tools used in fitting shop like steel rule, measuring tape, outside micrometer, vernier caliper and vernier height gauge
	3RD	Description and Demonstration and practice of thread cutting using taps and dies
3RD	1ST	Job: Cutting & fitting practice on a square
	2ND	Job:Cutting & fitting practice on a square ,Record checking
	3RD	Job: Angular cutting practice of 45 degree, Job submitted, Record checking
4TH	1ST	Job: Preparation of stud (to cut external threads) with the help of dies
	2ND	Job: Preparation of stud with the help of dies, Job submitted, Record checking
	3RD	Job: H-fitting
5TH	1ST	Job: Preparation of H-fitting ,Job submitted, Record checking
	2ND	Job: Preparation one job on male female fitting
	3RD	Job: Preparation of male female fitting, job submitted, record checking
6TH	1ST	Demonstrate safety practices in sheet metal shop. Preparation surface development for the jobs according to the drawing

	2ND	Cut M.S and G.P. sheets according to the surface development / drawing using standard sheet metal cutting tools. Selection hand tools for sheet metal work. Demonstration:- the process of metal clamp joining and reveted joining of sheet metals
	3RD	Job: Making of sheet metal joints, Job submitted, Record checking
7TH	1ST	Job: Prepare a sheet metal tray or a funnel, Job submitted, Record checking
	2ND	Job: Prepare a sheet metal job involving rolling, shearing, creasing
	3RD	Job: Prepare a sheet metal job involving bending & cornering, Job submitted, Record checking
8TH	1ST	Job: Prepare a lap riveting joint, Job submitted, Record checking
	2ND	Introduction, Safety precautions in welding, safety equipments & its application in welding shop
	3RD	Introduction to welding, type of welding, common materials that can be welded, introduction to gas welding equipment, types of flame, adjustment of flame, applications of gas welding, Welding tools & safety precautions
9TH	1ST	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.
	2ND	Demonstrate & use of the different tools used in the welding shop with sketches, Hand shield, helmet, clipping hammer, gloves, welding lead, connectors, aprons, goggles, etc. Demonstrate of welding defects & various types of joints & end preparation.
	3RD	Job: Preparation of lap joint by arc welding rod
10TH	1ST	Job: Preparation of lap joint by arc welding rod, Job submitted, Record checking
	2ND	Job: Preparation of Tee joint by arc welding
	3RD	Job: Preparation of Tee joint by arc welding, Job submitted ,Record checking
11TH	1ST	Job: Preparation of single V or double V butt joint by electric arc welding
	2ND	Job: Preparation of single V or double V butt joint by electric arc welding, Job submitted, Record checking

	3RD	Job: Brazing practice, Job submitted, Record checking
12TH	1ST	Job: Gas welding practice on worn-out & broken parts, Job submitted, Record checking
	2ND	Introduction, Safety precaution & safety equipments(Turning Shop)
	3RD	Various marking, measuring, cutting & holding tools. Demonstration of different parts of a lathe, demonstration on centering & turning operation
13TH	1ST	Plain turning practices on round bar
	2ND	Taper turning practices on round bar
	3RD	Grooving practices on round bar, Job submitted, Record checking
14TH	1ST	EXPOSURE TO C.N.C MILLING / LATHE MACHINE

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