Name of Faculty : Mr. Rajan Dabar
Discipline : Mechanical Engineering
Semester : IV
Subject : Workshop Technology-II
Lesson Plan Duration : 15 Weeks (9 January onwards)

Week	Theory	
	Lecture Day	Topic (Including assignment/
I	1	
	2	Single point cutting tool geometry, tool signature and its effect, He
	3	Cutting Tool Materials - Properties of cutting tool material, Study c
II	4	tungsten carbide, cobalt steel cemented carbides, stellite, ceramic
	5	Lathe:Principle of turning
	6	Function of various parts of a lathe
III	7	Classification and specification of various types of lathe
	8	Work holding devices
	9	Lathe tools and operations :- Plain and step turning, facing, partin
IV	10	taper turning, eccentric turning, drilling,
	11	reaming, boring, threading, knurling, form turning, spinning
	12	Cutting parameters – Speed, feed and depth of cut for various mat
V	13	Speed ratio, preferred numbers of speed selection
	14	Lathe accessories:- Centers, dogs, different types of chucks, collet
	15	tool post grinder, milling attachment, Quick change device for
VI	16	Introduction to capstan and turret lathe
	17	Assignment on Chapter 1,2 and queries relat
	18	Drilling:Principle of drilling.
VII	19	Classification of drilling machines and their description.Classificati
	20	Various operation performed on drilling machine – drilling, spot fa
	21	Speeds and feeds during drilling, impact of these parameters on d
VIII	22	Types of drills and their features,
	23	nomenclature of a drill,
	24	Drill holding devices.
IX	25	Boring: Principle of boring
	26	Classification of boring machines and their brief description.
	27	Boring tools, boring bars and boring heads.
X	28	Shaping, Planing and Slotting:Working principle of shaper, planer a
	29	Type of shapers
	30	Type of planers
XI	31	Types of tools used and their geometry.
	32	Speeds and feeds in above processes
	33	Broaching: Introduction,Types of broaching machines – Single ram
XII	34	vertical type pull up, pull down, push down.
	35	Elements of broach tool, broach tooth details – nomenclature, typ
	36	Jigs and Fixtures:Importance and use of jigs and fixture
XIII	37	Principle of location
	38	Locating devices
	39	Clamping devices

XIV	40	Advantages of jigs and fixtures
	41	Cutting Fluids and Lubricants:Function of cutting fluid
	42	Types of cutting fluids
XV	43	Difference between cutting fluid and lubricant
	44	Selection of cutting fluids for different materials and operations
	45	Common methods of lubrication of machine tools

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