


<b>Samrat Ashok Technological Institute, Vidisha</b>			
<u>Department of Mechanical Engineering</u>			
<b>Lecture Plan</b>			
<b>Course Code:</b>	ME-1853	<b>Year/Semester :</b>	BE III <sup>rd</sup> Year/ 5 <sup>th</sup> Semester
<b>Course Name:</b>	Manufacturing Process II	<b>Academic Year :</b>	July- Dec 2023 / ODD
<b>L — P:</b>	3 -2	<b>Credit :</b>	4
<b>Course Detail :</b>	Theory and Practical	<b>Term Start Date :</b>	24-07-2023
<b>Course Coordinator:</b>	Prof. <i>Sanjay Jain</i>	<b>Term End Date :</b>	
	Dr.		
	Prof. <i>Neeraj Sen</i>		

Academic Year : 2023					
Name of Teacher: Prof. Sanjay Jain					
Subject : Manufacturing Process II					
Theory / Tutorial : Theory					
Sr. No.	Name of Unit / topics	Hrs. Allotted	Actual Date	Teaching Aid Code	Remarks
1	<b>Unit : 1 – Lathe Machine Tools</b>				
	Discuss about CO/PO/PEO, about subject syllabus, Reference Books, about Google class room.	01			
	Lathe working principle. Size of lathe, overview of lathe main parts, Types of lathe.	01			
	Description and functions of lathe parts	02.			
	Feed mechanism	01			
	Thread Cutting mechanism, lathe accessories and attachments	01			
	Lathe Operations	02			
	Single point cutting tools, tool signature and nomenclature.	01			
	Machining time	01			
	Capstan and turret lathe	02			
	Sub Total	12			
2	<b>Unit : 2 – Grinding and Drilling machine Tools</b>				
	<u>Grinding:</u>				
	Grinding working principle, kind of grinding.	01			
	Type of grinding machine	01			
	Grinding wheel – abrasive , Bond and bonding process, Grain number, Grade, structure.	02			
	Wheel shape, size, std marking system.	01			
	Selection of grinding wheels, Glazing, loading, dressing and turning of grinding wheel, Balancing of grinding wheels	02			
	<u>Drilling:</u>				
	Introduction, Type of drilling machine.	01			
	Size of drilling machine, upright drilling machine parts and working.	02			

	Working holding devices, Tool holding devices.	01			
	Drilling operations.	01			
	Drill tool nomenclature, Cutting speed, feed, machining time in drilling	01			
	Sub Total	13			
3	Unit : 3 – Milling and Broaching				
	<u>Milling Machine:</u>				
	Introduction, Classification of milling machine.	01			
	Principle parts of column and knee type milling machine.	01			
	Milling machine mechanism, size of milling machine.	01			
	Work holding devices, milling machine attachments.	01			
	Fundamentals of milling process.	01			
	Milling operation.	01			
	Indexing and dividing head.	02			
	Milling cutters	01			
	<u>Broaching:</u>				
	Introduction, Type of broaches, broach elements.	01			
	Broaching methods, Broaching machines.	01			
	Broaching operations.	01			
Sub Total	12				
Teaching Aid :		Sign of Teacher : 			
1	Whit Board				
2	L.C.D / overhead Projector				
3	Model & Chart				
4	PPT & Video				

Reference Books :

1. Rao PN; Manufacturing Technology Vol II, TMH
2. Hazra Chaudhary: Workshop Tech II, Media Promoter and Pub.
3. Lindberg RA: Processes and Materials of Manufacturing, PHI.
4. Raghuwanshi BS: Workshop Technology Vol-I, II , Dhanpat Rai Delhi.
5. KC Jain & Sanjay Jain: Principles of Automation and Advanced Manufacturing System, Khanna Publisher, New Delhi.
6. HMT: Production Processes, TMH.