Lesson Plan

Discipline: Mech. Engg.	**Semester:** third (3rd)	**Name of the Faculty:** Er Prasanta Kumar Mohanty
Subject: Production Technology	**No. of days/week class allotted:** Five (5)	**Semester from Date:** 15.09.22 **to Date:** 22.12.22 **No. of Weeks:** 15
WEEK	**CLASS DAY**	**THEORY TOPICS**
1st	1st	Introduction to metal forming process
	2nd	Define Extrusion and its classification
	3rd	Explain Direct Extrusion Process
	4th	Explain Indirect Extrusion Process
	5th	Explain Impact Extrusion Process
2nd	1st	Define Rolling and its classification
	2nd	Differentiate between cold rolling and hot rolling process
	3rd	Components of a Mechatronics System
	4th	List the different types of rolling mills used in rolling process
	5th	Review
3rd	1st	Introduction to welding
	2nd	Define welding and classification of various welding process
	3rd	Explain fluxes used in welding
	4th	Explain Oxy-acetylene welding process
	5th	Explain various types of flames used in Oxy-

		acetylene welding process
4th	1st	Explain Arc Welding Process
	2nd	Specify arc welding electrodes
	3rd	Define resistance welding and its classification
	4th	Description about butt welding process
	5th	Monthly test
5th	1st	Description about spot welding process
	2nd	Description about flash welding process
	3rd	Description about projection welding process
	4th	Description about seam welding process
	5th	Explain TIG Welding process
6th	1st	Explain TIG Welding process
	2nd	Explain MIG Welding process
	3rd	State different welding defects
	4th	With causes and remedies
	5th	Testing of welded joint
7th	1st	Review
	2nd	Introduction to casting
	3rd	Define Casting and classify various casting process
	4th	Explain the procedure of sand mould casting
	5th	Monthly test

8th	1st	Explain different types of moulding sands with their composition and properties
	2nd	Classify different pattern
	3rd	State various patterns allowances
	4th	Classify core and explain its function
	5th	Explain the construction of core
9th	1st	Describe the construction of cupola furnace
	2nd	Describe the working of cupola furnace
	3rd	Describe the construction of crucible furnace
	4th	Describe the working of crucible furnace
	5th	Explain die casting method
10th	1st	State advantages, disadvantages and application of die casting
	2nd	Explain true centrifugal casting method
	3rd	Monthly test
	4th	Explain centrifuging casting method
	5th	State advantages, disadvantages and application of centrifugal casting method

11th	1st	Explain Investment casting method
	2nd	State advantages, disadvantages and application of Investment casting
	3rd	Explain various casting defects with their cause and remedies
	4th	Explain Inspection of casting
	5th	Economics of casting
12th	1st	review
	2nd	Introduction to powder metallurgy
	3rd	Define powder metallurgy process
	4th	State advantages of Powder metallurgy technique
	5th	Describe the methods of producing components by Powder metallurgy technique
13th	1st	Explain sintering
	2nd	Economics of Powder metallurgy
	3rd	review

	4th	Introduction to press work
	5th	Describe various press works such as blanking, piercing and trimming

14th	1st	List various types of die and punch
	2nd	Monthly test
	3rd	Explain Simple die and explain compound dies
	4th	Explain Progressive dies
	5th	Describe the various advantages, disadvantages of above dies
15th	1st	Introduction to press work and Define jigs and fixtures
	2nd	State advantages of using jigs and fixtures State principle of locations
	3rd	Describe the methods of locations with respect to 3-2-1-point location of rectangular jig
	4th	List various types jigs and fixtures

	5th	Review