

NILASAILA INSTITUTE OF SCIENCE & TECHNOLOGY

SERGARH-756060, BALASORE (ODISHA)
(Approved by AICTE& affiliated to SCTE&VT, Odisha)



LESSON PLAN

SUBJECT: TH -1 (Production Technology)

CHAPTER WISE DISTRIBUTION OF PERIODS

SI.No.	Name of the chapter as per the Syllabus	No. of Periods as per the Syllabus	No. of periods actually needed
1	Metal Forming Processes	07	07
2	Welding	16	16
3	Casting	16	16
4	Powder Metallurgy	07	07
5	Press Work	07	07
6	Jigs and fixtures	07	07
	TOTAL	60	60

Discipline: MECHANICAL ENGG.	Semester: 3rd	Name of the Teaching Faculty: Er.Ranjit Giri	
Week	Class Day	Theory / Practical Topics	
1 st	1 st	1.1 Extrusion: Definition & Classification	
	2 nd	1.2 Explain direct, indirect and impact extrusion process.	
_	3 rd	1.2 Explain direct, indirect and impact extrusion process.	
	4 th	1.3 Define rolling. Classify it	
	1 st	1.3 Define rolling. Classify it	
	2 nd	1.4 Differentiate between cold rolling and hot rolling process.	
2 nd	3 rd	1.5 List the different types of rolling mills used in Rolling process.	
	4 th	2.1 Define welding and classify various welding process.	
	1 st	2.2 Explain fluxes used in welding.	
	2 nd	2.3 Explain Oxy-acetylene welding process.	
3 rd	3 rd	2.4 Explain various types of flames used in Oxy-acetylene welding process	
	4 th	2.4 Explain various types of flames used in Oxy-acetylene welding process	
4 th	1 st	2.5 Explain Arc welding process.	
	2 nd	2.5 Explain Arc welding process.	
	3 rd	2.5 Explain Arc welding process.	
	4 th	2.6 Specify arc welding electrodes.	
	1 st	2.7 Define resistance welding and classify it.	
	2 nd	2.7 Define resistance welding and classify it.	
5 th	3 rd	2.8 Describe various resistance welding processes such as butt welding, spot welding, flash welding, projection welding and seam welding.	
	4 th	2.8 Describe various resistance welding processes such as butt welding, spot welding, flash welding, projection welding and seam welding.	
	1 st	2.8 Describe various resistance welding processes such as butt welding, spot welding, flash welding, projection welding and seam welding.	
6 th	2 nd	2.9 Explain TIG and MIG welding proces	
	3 rd	2.9 Explain TIG and MIG welding proces	
	4 th	2.10 State different welding defects with causes and remedies.	
7 th	1 st	3.1 Define casting and classify the various casting processes .	
	2 nd	3.1 Define casting and classify the various casting processes .	
	3 rd	3.2 Explain the procedure of Sand mould casting	
	4 th	3.2 Explain the procedure of Sand mould casting	

10 3.3 Explain different types of molding sands with their composition and properties. 2 3.3 Explain different types of molding sands with their composition and properties. 3 4.4 Classify different pattern and state various pattern allowances 4 3.4 Classify different pattern and state various pattern allowances 1 4 3.5 Classify core 2 3 7 Explain die casting method. 3 3 7 Explain die casting method. 4 3 8 Explain centrifugal casting such as true centrifugal casting, centrifuging with advantages, limitation and area of applicatio 10 3 9 Explain various casting defects with their causes and remedies. 3 9 Explain various casting defects with their causes and remedies. 4 1 Define powder metallurgy process. 4 1 1 Define powder metallurgy process. 4 2 State advantages of powder metallurgy technique 4 3 Describe the methods of producing components by powder metallurgy technique 4 3 Describe the methods of producing components by powder metallurgy technique 4 4 A Explain sintering. 4 4 Explain sintering. 4 5 Describe the methods of Producing components by powder metallurgy technique 4 6 Describe press works,blanking,piercing and trimming. 4 6 Describe press works,blanking,piercing and trimming. 5 3 Explain simple, Compound & Progressive dies 5 4 Describe the various advantages & disadvantages of above dies 4 6 2 State advantages of using jigs and fixtures 3 6 6 2 State advantages of using jigs and fixtures 4 6 6 5 Extra devantages of using jigs and fixtures 6 6 4 Describe the methods of location with respect to 3-2-1 point location of rectangular jig 6 4 Describe the methods of location with respect to 3-2-1 point location of rectangular jig 6 4 Describe the methods of location with respect to 3-2-1 point location of rectangular jig 6 5 List various types of jig and fixtures 6 5 List various types of jig and fixtures			
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