

3rd SEM 01.10.2021-08.01.2022(WINTER)

LESSON PLAN

PRODUCTION TECHNOLOGY-I

ER. NILAKANTHA NAYAK

(LECTURER IN AUTOMOBILE ENGG.)

B.O.S.F., CUTTACK

AUTOMOBILE ENGINEERING DEPARTMENT

VISSION:

To develop competent, disciplined imaginative Automobile engineers, equipped with core competency and technical skills useful to the learning / teaching community and the industrial fraternity.

MISSION:

M1: To provide with operational and technical inputs to get innovative and research ideas in the field of automotive engineering.

M2: To give inputs for higher education with management qualities for the betterment of the society.

M3: Skilling with modern engineering tools necessary to meet and solve engineering problems.

PROGRAM EDUCATIONAL OBJECTIVES

PEO1: To provide technical skills to diagnose and apply the concept of automotive system

PEO2: To prepare to design, fabricate and innovate in automobile sector to face the industrial challenges.

PEO3: To inculcate with good communication skills, ethics and entrepreneurship skills to play the key role in automotive industry.

Discipline:-Automobile Engg.	Semester :-3 rd	Name of the teaching faculty :- NILAKANTHA NAYAK
Subject Name :- PRODUCTION TECHNOLOGY	No. Of Days/Week Class Allotted :- 04 Periods/Week (Monday, Tuesday, Thursday, Friday – 1 Period Each)	Semester from Date - 01/10/2021 To Date - 08/01/2021 No. of Weeks:16
Week	Class Day	Theory topics
1 st	1.10.2021	Introduction of Production Technology.
2 nd	4.10.2021 5.10.2021 7.10.2021	1.0 METAL FORMING PROCESSES 1.1 Extrusion: Definition & Classification 1.2 Explain direct, indirect and impact extrusion process. 1.3 Define rolling. Classify it. 1.4 Differentiate between cold rolling and hot rolling process.
3 rd	8.10.2021 11.10.2021 TO 20.10.2021	1.5 List the different types of rolling mills used in Rolling process. DURGA PUJA HOLIDAY DURGA PUJA HOLIDAY
4 th	21.10.2021 22.10.2021	2.0 WELDING 2.1 Define welding and classify various welding processes. 2.2 Explain fluxes used in welding.
5 th	25.10.2021 26.10.2021 28.10.2021 29.10.2021	2.3 Explain Oxy-acetylene welding process. 2.4 Explain various types of flames used in Oxy-acetylene welding process. 2.5 Explain Arc welding process. 2.6 Specify arc welding welding electrodes. CLASS TEST ✓
	1.11.2021 2.11.2021	2.7 Define resistance welding and classify it. 2.8 Describe various resistance welding processes such as butt welding,

		spot welding, flash welding, projection welding and seam welding
	04.11.2021	DIWALI/KALIPUJA HOLIDAY
7 th	05.11.2021	2.8 Describe various resistance welding processes such as butt welding, spot welding, flash welding, projection welding and seam welding
	8.11.2021	2.8 Describe various resistance welding processes such as butt welding, spot welding, flash welding, projection welding and seam welding
	9.11.2021	2.8 Describe various resistance welding processes such as butt welding, spot welding, flash welding, projection welding and seam welding
	11.11.2021	2.9 Explain TIG and MIG welding process
	12.11.2021	2.10 State different welding defects with causes and remedies.
8 th		3.0 CASTING.
	15.11.2021	3.1 Define Casting and Classify the various Casting processes.
	16.11.2021	3.2 Explain the procedure of Sand mould casting.
	18.11.2021	3.3 Explain different types of moulding sands with their composition and properties
9 th	19.11.2021	HOLIDAY
	22.11.2021	3.4 Classify different pattern and state various pattern allowances.
	23.11.2021	3.4 Classify different pattern and state various pattern allowances.
	25.11.2021	3.5 Classify core.
	26.12.2021	3.6 Describe construction and working of cupola and crucible furnace.
10 th		
	29.12.2021	3.7 Explain die casting method.
	30.12.2021	3.8 Explain centrifugal casting such as true centrifugal casting, centrifuging with advantages, limitation and area of application.
	2.12.2021	3.8 Explain centrifugal casting such as true centrifugal casting, centrifuging with advantages, limitation and area of application.
	3.12.2021	Assignment And Test
11 th		
	06.12.2021	3.9 Explain various casting defects with their causes and remedies
	07.12.2021	3.9 Explain various casting defects with their causes and remedies

	09.12.2021	4.0 POWDER METALLURGY 4.1 Define powder metallurgy process, 4.2 State advantages of powder metallurgy technology technique
12 th	10.12.2021	4.3 Describe the methods of producing components by powder metallurgy technique.
	13.12.2021	4.3 Describe the methods of producing components by powder metallurgy technique.
	14.12.2021	4.3 Describe the methods of producing components by powder metallurgy technique.
	16.12.2021	4.4 Explain sintering.
	17.12.2021	4.5 Economics of powder metallurgy
13 th		CLASS TEST
		5.0 PRESS WORK
	20.12.2021	5.1 Describe Press Works: blanking, piercing and trimming
	21.12.2021	5.2 List various types of die and punch
	23.12.2021	5.3 Explain simple, Compound & Progressive dies
	24.12.2021	5.4 Describe the various advantages & disadvantages of above dies
14 th		6.0 JIGS AND FIXTURES 6.5 List various types of jig and fixtures.
	27.12.2021	6.2 State advantages of using jigs and fixtures
	28.12.2021	6.1 Define jigs and fixtures
	30.12.2021	6.3 State the principle of locations
	31.12.2021	6.4 Describe the methods of location with respect to 3-2-1 point location of rectangular jig
15 th		TEST AND ASSIGNMENT
	03.01.2022	Revision
	04.01.2022	Doubt clearing class
	06.01.2022	MCQ Test
	07.01.2022	