BHUBANANANDA ODISHA SCHOOL OF ENGINEERING, CUTTACK
DEPARTMENT OF AUTOMOBILE ENGINEERING

LESSON PLAN

SUBJECT: PRODUCTION TECHNOLOGY (TH 1)

FACULTY: NILAKANTHA NAYAK

DATE-15/09/2022-23/12/2022

ACCADEMIC SESSION: 2022-23W

SEMESTER: 3RD

Sd/-
H O D (Auto. Engg.)

Automobile Engg. Dept.
BOSE, Cuttack

AUTOMOBILE ENGINEERING DEPATMENT

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 :-**3rd**	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 -**15/09/2022** To Date **22/09/2022** **No. of Weeks:15**
Week	Class Day	Theory topics
1ST		
	15/09/2022	Introduction of Production Technology.
		1.0 METAL FORMING PROCESSES
	16/09/2022	1.1 Extrusion: Definition & Classification
2ND		
	19/09/2022	1.2 Explain direct, indirect and impact extrusion process.
	20/09/2022	1.3 Define rolling. Classify it. 1.4 Differentiate between cold rolling and hot rolling process.
	22/09/2022	1.4 Differentiate between cold rolling and hot rolling process. 1.5 List the different types of rolling mills used in Rolling process.
	23/09/2022	1.5 List the different types of rolling mills used in Rolling process.
3RD		
		2.0 WELDING
	26/09/2022	2.1 Define welding and classify various welding processes.
	27/09/2022	2.2 Explain fluxes used in welding.
	29/09/2022	2.3 Explain Oxy-acetylene welding process.
	30/09/2022	2.4 Explain various types of flames used in Oxy-acetylene welding process.
4TH		
	10/10/2022	2.5 Explain Arc welding process. 2.6 Specify arc welding electrodes.
	11/10/2022	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

	13/10/2022	2.8 Describe various resistance welding processes such as butt welding, spot welding, flash welding, projection welding and seam welding
	14/10/2022	2.8 Describe various resistance welding processes such as butt welding, spot welding, flash welding, projection welding and seam welding
5TH		
	17/10/2022	2.8 Describe various resistance welding processes such as butt welding, spot welding, flash welding, projection welding and seam welding.
	18/10/2022	2.9 Explain TIG and MIG welding process
	20/10/2022	2.10 State different welding defects with causes and remedies.
	21/10/2022	CLASS TEST
6TH		
		3.0 CASTING.
	25/10/2022	3.1 Define Casting and Classify the various Casting processes.
	27/10/2022	3.2 Explain the procedure of Sand mould casting.
	28/10/2022	3.3 Explain different types of moulding sands with their composition and properties
7TH		
	31/10/2022	3.4 Classify different pattern and state various pattern allowances.
	01/11/2022	3.4 Classify different pattern and state various pattern allowances.
	03/11/2022	3.5 Classify core.
	04/11/2022	3.6 Describe construction and working of cupola and crucible furnace.
8TH		
	07/11/2022	3.7 Explain die casting method.
	10/11/2022	3.8 Explain centrifugal casting such as true centrifugal casting, centrifuging with advantages, limitation and area of application.
	11/11/2022	3.8 Explain centrifugal casting such as true centrifugal casting, centrifuging with advantages, limitation and area of application.
9TH		
	14/11/2022	3.9 Explain various casting defects with their causes and remedies
	15/11/2022	3.9 Explain various casting defects with their causes and remedies

	17/11/2022	**4.0 POWDER METALLURGY** 4.1 Define powder metallurgy process. 4.2 State advantages of powder metallurgy technology technique
	18/11/2022	4.3 Describe the methods of producing components by powder metallurgy technique.
10TH		
	21/11/2022	4.3 Describe the methods of producing components by powder metallurgy technique.
	22/11/2022	4.3 Describe the methods of producing components by powder metallurgy technique.
	24/11/2022	4.4 Explain sintering. 4.5 Economics of powder metallurgy
	25/11/2022	CLASS TEST
11TH		
	28/11/2022	**5.0 PRESS WORK** 5.1 Describe Press Works: blanking, piercing and trimming
	29/11/2022	5.2 List various types of die and punch 5.3 Explain simple, Compound & Progressive dies
	01/12/2022	5.4 Describe the various advantages & disadvantages of above dies
	02/12/2022	POWER POINT PRESENTATION
12TH		
	05/12/2022	**6.0 JIGS AND FIXTURES** 6.2 State advantages of using jigs and fixtures 6.1 Define jigs and fixtures
	06/12/2022	6.3 State the principle of locations
	08/12/2022	6.3 State the principle of locations
	09/12/2022	6.4 Describe the methods of location with respect to 3-2-1 point location of rectangular jig
13TH		
	12/12/2022	6.5 List various types of jig and fixtures.
	13/12/2022	6.5 List various types of jig and fixtures.

	15/12/2022	**MCQ TEST**
	16/12/2022	PREVIOUS YEAR QUESTION DISCUSSION
14TH		
	19/12/2022	PREVIOUS YEAR QUESTION DISCUSSION
	20/12/2022	REVISION & DOUBT CLEARING CLASS
	22/12/2022	POWER POINT PRESENTATION
	23/12/2022	POWER POINT PRESENTATION