

LESSON PLAN FOR HE

Discipline : METALLURGY ENGG.		Semester: 5th		
Subject : Heat Transfer, Fluid Flow & Furnace Course Code:TH2		No. of Days / per week class allotted : 04		
MONTH	Week	Day	Unit	
JULY	1ST	1st	UNIT-1	
		4th		
	2ND	2nd		
		1st		
		2nd		
		4th		
	3RD	1st		
		4th		
		2nd		
		1st		
	AUGUST	3rd		1st
				4th
2nd				
4th		1st	UNIT-2	
		4th		
		2nd		
		1st		
		1st		
5th		1ST		
		2nd		

		3rd
		1st
	6th	1st
SEPTEMBER	1st	1st
		4th
		2nd
	2nd	1st
		4th
		1st
	3rd	1st
		4th
		2nd
		1st
	4th	1st
		4th
		2nd
		1st
	5th	2nd
		1st
OCTOBER	1st	1st
		4th
	2nd	1st
		2nd
		3rd
		4th
	3rd	1st
		4th
2nd		
		1st

UNIT-3



	4th	4th	REVISION
		2nd	
NOVEMBER	1st	3rd	
		4th	
		1st	
	2nd	2nd	
		4th	
		3rd	
	3rd	1st	
		3rd	
		4th	
	4th	4th	
		2nd	
		1st	
DECEMBER	1ST	2nd	REVISION
		4th	
		3rd	
	2nd	1st	
		3rd	
		2nd	
		1st	

Subject Expert
Metallurgy Engineering

OLYTECHNIC MAYURBHANJ

HEAT TRANSFER, FLUID FLOW & FURNACE

WINTER-2024-25

Name of the Teaching Faculty : SUBHASHMITA SAHOO

Semester From date : 01.07.2024

To Date : 16.12.2024

Topics

FLUID FLOW

Discuss types of fluids Ideal & Real Fluids

Discuss the types of flow: turbulent & streamline

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State the Bernoulli's equation

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Discuss the flow through orifice, pitot tube & venturimeter

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Define & calculate loss of head (friction loss) in straight pipe, in bend pipe & in bend

Define & calculate loss of head (friction loss) in straight pipe, in bend pipe & in bend with

Define & calculate loss of head (friction loss) in straight pipe, in bend pipe & in bend with

HEAT FLOW

Discuss the elementary idea on different mode of heat transfer

Define & derive the Fourier's law

Define & derive the Fourier's law

Explain & calculate the steady state heat conduction through flat wall

Explain & calculate the steady state heat conduction through flat wall

CLASS TEST 1

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FURNACE

Classify the furnaces based on use ,heat source ,& material movement.
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Discuss the following metallurgical furnaces⌈ Soaking pit, Reheating furnace, Heat treatment furnace, Melting furnace , smelting furnace, refining furnace.
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Discuss on heat losses, heat balance & furnace efficiency
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INTERNAL-EXAM
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Explain the types of waste heat recovery system such as regenerator & recuperates.
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State the bernouli's equation
State the bernouli's equation
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CLASS TEST-2
CLASS TEST-2
State the bernouli's equation
State the bernouli's equation
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Revision on unit 1-5

Revision on unit 1-5
Previous year question discussion
Revision on unit 1-5
Revision on unit 6-10
Revision on unit 6-10
Revision on unit 6-10
Revision on unit 6-10
Previous year question discussion
Previous year question discussion
Previous year question discussion
Previous year question discussion
Previous year question discussion
Previous year question discussion
Previous year question discussion
Revision on unit 6-10
Revision on unit 6-10
Revision on unit 6-10
Previous year question discussion
Previous year question discussion
Previous year question discussion
Previous year question discussion

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Govt. Polytechr

Co-ordinator
Dr. Mayurbhanj