

BHUBANANANDA ODISHA SCHOOL OF ENGINEERING, CUTTACK
DEPARTMENT OF ELECTRICAL ENGINEERING



LESSON PLAN

SUBJECT: ELEMENTS OF MECHANICAL ENGINEERING (TH-3)

FACULTY: ACHYUT KUMAR PATRA

ACCADEMIC SESSION: 2023-24

SEMESTER: 3RD

SEC: C

H O D (ELECTRICAL ENGG.)

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Discipline: Electrical Engineering	Semester: 3 rd	Section-C	Name of the teaching faculty: Achyut Kumar Patra
Subject: Elements of Mechanical Engineering	No. of Days/ per week class allotted: 04 periods per week (Tue -1 period, Wed-1 period, Fri-1 period, Sat -1 period)		Semester From Date: 01-08-2023 To Date: 30-11-2023 No. of weeks: 17 weeks
Week	Class Day	No of period available	Theory Topics
1ST	01/08/2023	1	1. THERMODYNAICS 1.0 INTRODUCTION:
	02/08/2023	1	1.1. State Unit of Heat and work
	04/08/2023	1	1.1 1st law of thermodynamics.
	05/08/2023	1	1.2 State Laws of perfect gases
2ND	08/08/2023	1	1.3 Determine relationship of specific heat of gases at constant volume and constant pressure.
	09/08/2023	1	1.3 Determine relationship of specific heat of gases at constant volume and constant pressure.
	11/08/2023	1	2.PROPERTIES OF STEAM 2.0 INTRODUCTION:
	12/08/2023	1	2.1 Explain total heat of wet, dry and super-heated steam
3RD	16/08/2023	1	2.2 Use steam table for solution of simple problem
	18/08/2023	1	2.2 Use steam table for solution of simple problem

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	19/08/2023	1	2.2 Use steam table for solution of simple problem
4TH	22/08/2023	1	3. BOILERS 3.0 INTRODUCTION:
	23/08/2023	1	3.1 State types of Boilers
	25/08/2023	1	3. 2 Describe Cochran Boiler.
	26/08/2023	1	Monthly Class Test 1
5TH	29/08/2023	1	3.2 Describe Babcock and Wilcox boiler.
	01/09/2023	1	3.3 Describe Boiler Mountings
	02/09/2023	1	3.3 Describe Boiler accessories
6TH	05/09/2023	1	3.3 Describe Boiler accessories
	08/09/2023	1	4. STEAM ENGINES 4.0 INTRODUCTION:
	09/09/2023	1	4.1 Explain the principle of Simple steam engine
7TH	12/09/2023	1	4.2 Draw Indicator diagram
	13/09/2023	1	4.3 Calculate Mean effective pressure, IHP and BHP and mechanical efficiency.
	15/09/2023	1	4.3 Calculate Mean effective pressure, IHP and BHP and mechanical efficiency.
	16/09/2023	1	4.4 Solve Simple problem.
8TH	22/09/2023	1	4.4 Solve Simple problem.
	23/09/2023	1	5. STEAM TURBINES 5.0 INTRODUCTION:
9TH	26/09/2023	1	5.1 State Types
	27/09/2023	1	5.2 Differentiate between impulse and reaction Turbine.

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	29/09/2023	1	5.2 Differentiate between impulse and reaction Turbine.
	30/09/2023	1	6.CONDENSER 6.0 INTRODUCTION:
10TH	03/10/2023	1	6.1 Explain the function of condenser
	04/10/2023	1	6.2 State their types
	06/10/2023	1	6.2 State their types
	07/10/2023	1	7. I.C. ENGINE 7.0 INTRODUCTION:
11TH	10/10/2023	1	7.1 Explain working of two stroke and 4 stroke petrol engines
	11/10/2023	1	7.1 Explain working of two stroke and 4 stroke Diesel engines.
	13/10/2023	1	7.2 Differentiate between them
12TH	17/10/2023	1	8. HYDROSTATICS 8.0 INTRODUCTION:
	18/10/2023	1	8.1 Describe properties of fluid
	20/10/2023	1	8.2 Determine pressure at a point, pressure measuring Instruments
13TH	31/10/2023		8.2 Determine pressure at a point, pressure measuring Instruments
	01/11/2023	1	9. HYDROKINETICS 9.0 INTRODUCTION:
	03/11/2023	1	9.1 Deduce equation of continuity of flow
	04/11/2023		9.2 Explain energy of flowing liquid

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14TH	07/11/2023	1	9.3 State and explain Bernoulli's theorem
	08/11/2023	1	Monthly Class Test 2
	10/11/2023	1	10. HYDRAULIC DEVICES AND PNEUMATICS 10.0 INTRODUCTION:
	11/11/2023	1	10.1 Intensifier
15TH	14/11/2023	1	10.2 Hydraulic lift
	15/11/2023	1	10.3 Accumulator
	17/11/2023	1	10.4 Hydraulic ram
	18/11/2023	1	Revision
16TH	22/11/2023	1	Revision
	24/11/2023		Previous Year Questions Discussion
17TH	28/11/2023	1	Previous Year Questions Discussion
	29/11/2023	1	Previous Year Questions Discussion