

**GOVERNMENT POLYTECHNIC, MALKANGIRI
DEPARTMENT OF MECHANICAL ENGINEERING**

LESSON PLAN

Discipline: Mechanical Engineering	Semester: 6th	Name of the Teaching Faculty: CHINMAYA BRAHMADARSHI MISHRA
Subject: Power Station Engineering Lab	No. of days/week class allotted 4	Semester From date:22.12.2025 To date:18.04.2026 No. of Week: 15
Course Outcomes	1. Understand the layout and working of a modern steam power plant and its main components 2. Analyze the performance and efficiencies of steam turbines 3. Explain the construction and working of cooling towers, condensers and safety valves 4. Identify and describe different types of steam turbines and their applications 5. Study the construction and working of various boilers used in steam generation	
Week	Class Day	Theory/Practical Topics
1st	1st	Experiment 01-To study the modern steam power plant with model.
	2nd	Experiment 01-To study the modern steam power plant with model.
2nd	1st	Experiment 02-To determine the various efficiencies of steam turbine
	2nd	Experiment 02-To determine the various efficiencies of steam turbine
3rd	1st	Experiment 03-To study the cooling tower.
	2nd	Experiment 03-To study the cooling tower.
4th	1st	Experiment 03-To study the cooling tower.
	2nd	Experiment 04-Study of jet condenser.
5th	1st	Experiment 04-Study of jet condenser.
	2nd	Experiment 04-Study of jet condenser.
6th	1st	Experiment 05-Study of De-level turbine.
	2nd	Experiment 05-Study of De-level turbine.
7th	1st	Experiment 05-Study of De-level turbine.
	2nd	Experiment 06-To study the spring loaded safety valve.
8th	1st	Experiment 06-To study the spring loaded safety valve.
	2nd	Experiment 06-To study the spring loaded safety valve.
9th	1st	Experiment 06-To study the spring loaded safety valve.
	2nd	Experiment 07-To study the following steam generators (boilers)models. a) Lancashire boiler.
10th	1st	Experiment 07-To study the following steam generators (boilers)models. a) Lancashire boiler.
	2nd	Experiment 07-To study the following steam generators (boilers)models. a) Lancashire boiler.
11th	1st	b) Cornish boiler.
	2nd	b) Cornish boiler.
12th	1st	b) Cornish boiler.
	2nd	c) Babcock & Wilcox Boiler.
13th	1st	c) Babcock & Wilcox Boiler.
	2nd	c) Babcock & Wilcox Boiler.
14th	1st	c) Babcock & Wilcox Boiler.
	2nd	d) Vertical water tube boiler.
15th	1st	d) Vertical water tube boiler.
	2nd	d) Vertical water tube boiler.

Chinmaya Brahmadarshi Mishra

Signature of Faculty

Signature of HOD/

Signature of Academic Coordinator

Signature of Principal