

Lesson Plan 2026-27 (Winter)

Discipline Mechanical Engg.	Semester: 5 th	Name of the Faculty- MS.TAPATI PANIGRAHY
Subject: POWER PLANT ENGG.(MEPC303)	No. of days/ week class Allotted class:03	Semester from date -01 .07.2026 To date 05.11.2026 No. of Weeks : 19
Weeks	CLASS DAYS	Theory
01 ST	1 ST	Introduction to Power plant: Introduction to power plant;
	2 ND	Indian Energy scenario in India;
	3 RD	Location of power plant;
02 ND	1 ST	Choice of Power plant; Classification of power plants,
	2 ND	layout of thermal power plant
	3 RD	layout of thermal power plant
03 RD	1 ST	Economics of power plant: Terminology used in power plant:
	2 ST	Peak load, Base load, Load factor, Load curve;
	3 RD	Various factor affecting the operation of power plant;
04 TH	1 ST	Methods of meeting the fluctuating load in power plant;
	2 ND	Load sharing- cost of power-tariff methods;
	3 RD	Performance and operating characteristics of power plant.
05 TH	1 ST	Performance and operating characteristics of power plant.
	2 ND & 3 RD	Hydro power plant: Introduction to Hydroelectric power plant;
06 TH	1 ST	Rainfall, Runoff and its measurement,
	2 ND & 3 RD	Hydrograph, flow duration curve;
07 TH	1 ST	Selection of sites for hydroelectric power plant;
	2 ND	General layout of Hydroelectric power plant and its working;
	3 RD	Classification of the Plant-Run off river plant, storage river plant,
08 TH	1 ST	pumped storage plant;
	2 ND	Advantages and disadvantages of hydroelectric power plant.
	3 RD	Diesel and Gas turbine plant: The layout of diesel power plant;
09 TH	1 ST & 2ND	Components and the working of diesel power plant;

	3RD	Advantages and disadvantages of diesel power plant;
10 TH	1ST	Gas turbine power Plant Schematic diagram,
	2ND	components and its working;
	3RD	Combined cycle power generation Combined gas and steam turbine power plant operation (only flow diagram)
11 TH	1ST	Nuclear power plant: Introduction; Nuclear Power-Radio activity-Radioactive charge
	2ND	types of reactions;
	3RD	Working of a nuclear power plant;
12 TH	1ST	Thermal fission Reactors- PWR, BWR
	2 ND	gas cooled reactors;
	3RD	Advantages and Disadvantages of Nuclear power plant.
13 TH	1ST	Environmental impact of Power plant: Social and Economical issues of power plant;
	2ND	Green house effect;
	3RD	Acid precipitation Acid rain, Acid snow, Dry deposition, Acid fog;
14 TH	1ST	Air, water, Thermal pollution from power plants;
	2ND	Radiations from nuclear power plant effluents.
	3RD	Power plant safety: Plant safety concept;
15 TH	1 ST	Safety policy to be observed in power plants;
	2 ND & 3 RD	Safety practices to be observed in boiler operation; Safety in oil handling system; Safety in Chemical handling system; Statutory provision related to boiler operation
16 TH	1 ST ,2 ND & 3 RD	Course review and discussions
17 TH	1 ST ,2 ND & 3 RD	Extra classes , doubt clearing class & Numerical solve
18 TH	1 ST ,2 ND & 3 RD	Extra classes , doubt clearing class & Numerical solve
19 TH	1 ST ,2 ND & 3 RD	Course review and discussions

TEACHING FACULTY

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