

Republic of Iraq

The Ministry Of Higher Education

& Scientific Research

بسم الله الرحمن
الرحيم



University: Diyala

College: Engineering

Department: Mechanical

Stage: 4th

Lecturer name: Abeer A. Shihab

Qualification: Ph.D. in Mech. Eng.

Place of work: University of Diyala

Plan of Study

Course Instructor	Dr. Abeer A. Shihab				
E-mail	abeerahmedshihab@gmail.com				
Title	Power Plant Engineering				
Course	Annually				
Course Objective	The course goals for: - Giving the students a feel for how thermodynamics is applied in engineering practice. - Learning the students the types and energy sources, of power plant that used for generating electricity and the basic principles of their operation				
Course Description	The course covers the types and energy sources of power plant that used for generating electricity, the basic principles of their operation and their design calculations.				
Textbook	Yunis A. Gengle, Thermodynamics An Engineering Approach, Fifth Edition R.K. Rajput, A Text Book of Power Plant Engineering, Forth Edition				
Course Assessments	Term Tests	Laboratory	Quizzes	Project	Final Exam
General Notes					

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Course Weekly Outline

Week	Date	Topics Covered	Lab. Experiment Assignments	Notes
1	/10/2016	General thermodynamic		
2	/10/2016	Introduction :Fundamental of power plant Energy ,Types of energy, power Resources of power		
3	10/2016	Classification of power plant cycle		
4	10/2016	Classification of power plant cycle		
5	11/2016	Fuels and combustion		
6	11/2016	Non – convention al energy resources and utilization		
7	11/2016	Non – convention al energy		
8	11/2016	Steam power plant		
9	10/2016	Steam generator types of boilers		
11	10/2016	Steam turbine		
11	10/2016	Steam turbine		

12	10/2016	Solved examples on steam power plant		
13	1/2017	First exam		
14	/1/2017	Diesel power plant		
15	1/2017	Diesel power plant		
16	1/2017	Gas turbine power plant		
17	2/2017	Gas turbine power plant		
18	2/2017	Gas turbine power plant		

Half – year break				
19	2/2017	Gas turbine power plant		
20	2/2017	Gas turbine power plant		
21	3/2017	Gas turbine power plant		
22	3/2017	Hydro – Electric power plant		
23	3/2017	Hydro – Electric power plant		
24	3/2017	Solar power plant		
25	4/2017	Solar power plant		
26	4/2017	Electrical system		
27	4/2017	Review examples		
28	4/2017	General review		
29	5/2017	Review examples		
30	5/2017	Exam		

Instructor Signature:

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