

**UTKAL GOURAV MADHUSUDAN INSTITUTE OF TECHNOLOGY, RAYAGADA**  
**Academic Lesson Plan for Winter Semester- 2022**

Name of the Teaching Faculty: Er. Saroj Kumar Sahu    Department: Mechanical Engineering  
Semester: 5th    Subject: HYDRAULIC MACHINES & INDUSTRIAL FLUID  
**POWER LAB**  
No. of Periods per Week: 4    Total Periods: 60  
End Semester Exam: 50    Sessional: 25  
Total Marks: 75    Practical - 2

Sl. No.	Week	Period	Topic to be covered
1.	1 <sup>st</sup>	1 <sup>st</sup>	Performance test on impulse turbine and to find out the efficiency
2.		2 <sup>nd</sup>	Do
3.		3 <sup>rd</sup>	Do
4.		4 <sup>th</sup>	Do
5.	2 <sup>nd</sup>	1 <sup>st</sup>	Do
6.		2 <sup>nd</sup>	Do
7.		3 <sup>rd</sup>	Do
8.		4 <sup>th</sup>	Do
9.	3 <sup>rd</sup>	1 <sup>st</sup>	Performance test on Kaplan turbine and to find out the efficiency
10.		2 <sup>nd</sup>	Do
11.		3 <sup>rd</sup>	Do
12.		4 <sup>th</sup>	Do
13.	4 <sup>th</sup>	1 <sup>st</sup>	Do
14.		2 <sup>nd</sup>	Do
15.		3 <sup>rd</sup>	Do
16.		4 <sup>th</sup>	Do
17.	5 <sup>th</sup>	1 <sup>st</sup>	Performance test on Francis turbine and to find out the efficiency
18.		2 <sup>nd</sup>	Do
19.		3 <sup>rd</sup>	Do
20.		4 <sup>th</sup>	Do
21.	6 <sup>th</sup>	1 <sup>st</sup>	Do
22.		2 <sup>nd</sup>	Do
23.		3 <sup>rd</sup>	Do
24.		4 <sup>th</sup>	Do
25.	7 <sup>th</sup>	1 <sup>st</sup>	Performance test on centrifugal pump and to find out the characteristic curves
26.		2 <sup>nd</sup>	Do
27.		3 <sup>rd</sup>	Do
28.		4 <sup>th</sup>	Do
29.	8 <sup>th</sup>	1 <sup>st</sup>	Do

30.		2 <sup>nd</sup>	Do
31.		3 <sup>rd</sup>	Direct operation of single & double acting pneumatic cylinder.
32.		4 <sup>th</sup>	Do
33.	9 <sup>th</sup>	1 <sup>st</sup>	Do
34.		2 <sup>nd</sup>	Do
35.		3 <sup>rd</sup>	Do
36.		4 <sup>th</sup>	Do
37.	10 <sup>th</sup>	1 <sup>st</sup>	Operating double acting pneumatic cylinder with quick exhaust valve
38.		2 <sup>nd</sup>	Do
39.		3 <sup>rd</sup>	Do
40.		4 <sup>th</sup>	Do
41.	11 <sup>th</sup>	1 <sup>st</sup>	Do
42.		2 <sup>nd</sup>	Do
43.		3 <sup>rd</sup>	Speed control double acting pneumatic cylinder using metering in and metering out circuits.
44.		4 <sup>th</sup>	Do
45.		12 <sup>th</sup>	1 <sup>st</sup>
46.	2 <sup>nd</sup>		Do
47.	3 <sup>rd</sup>		Direct operation of single & double acting hydraulic cylinder
48.	4 <sup>th</sup>		Do
49.	13 <sup>th</sup>	1 <sup>st</sup>	Do
50.		2 <sup>nd</sup>	Do
51.		3 <sup>rd</sup>	Direct operation of hydraulic motor
52.		4 <sup>th</sup>	Do
53.	14 <sup>th</sup>	1 <sup>st</sup>	Do
54.		2 <sup>nd</sup>	Do
55.		3 <sup>rd</sup>	Speed control double acting hydraulic cylinder using metering in & metering out circuits.
56.		4 <sup>th</sup>	Do
57.		15 <sup>th</sup>	1 <sup>st</sup>
58.	2 <sup>nd</sup>		Do
59.	3 <sup>rd</sup>		Do
60.	4 <sup>th</sup>		Do

The above lesson plan prepared by the concerned faculty.

Er. Saroj Kumar Sahu

LECTURE, MECHANICAL DEPARTMENT