

## LESSON PLAN OF 6<sup>TH</sup> SEMESTER(2020-21) CHEMICAL ENGINEERING

<b>DISCIPLINE: CHEMICAL</b>	<b>Semester:-6<sup>TH</sup></b>	<b>NAME OF THE TEACHING FACULTY PRATEEK KUMAR DAS</b>
<b>SUBJECT: PLANT SAFETY MANAGEMENT</b>	<b>No of days per Week Allotted : 04</b>	<b>SEMESTER: APRIL TO AUGUST No of Weeks:- 15</b>
<b>Week</b>	<b>Class/ Day</b>	<b>Theory/ Practical Topics</b>
1 <sup>ST</sup>	1 <sup>st</sup>	Fundamental of safety
	2 <sup>nd</sup>	Unsafe act and unsafe condition
	3 <sup>rd</sup>	Integration of Safety, Health and Environment
	4 <sup>th</sup>	Integration of Safety, Health and Environment
2 <sup>ND</sup>	1 <sup>st</sup>	Objective and principle of Safety Management
	2 <sup>nd</sup>	Terms and definition used in safety management
	3 <sup>rd</sup>	Classification of accidents
	4 <sup>th</sup>	Good Housekeeping practice
3 <sup>rd</sup>	1 <sup>st</sup>	Work place safety
	2 <sup>nd</sup>	Safe working environment
	3 <sup>rd</sup>	Spot a hazard to stop an accident
	4 <sup>th</sup>	Spot a hazard to stop an accident
4 <sup>th</sup>	1 <sup>st</sup>	Precaution in use of ladder
	2 <sup>nd</sup>	Safety instruction during maintenance
	3 <sup>rd</sup>	Safety measures during handling of compressed system, cylinders and painting Equipment
	4 <sup>th</sup>	Safety measures during handling of compressed system, cylinders and painting Equipment
5 <sup>th</sup>	1 <sup>st</sup>	Permit to work system
	2 <sup>nd</sup>	Permit to work system
	3 <sup>rd</sup>	Requirement of personal protective equipment
	4 <sup>th</sup>	Requirement of personal protective equipment
6 <sup>th</sup>	1 <sup>st</sup>	Classification of Hazards
	2 <sup>nd</sup>	Personal protective equipment for different parts of body
	3 <sup>rd</sup>	Personal protective equipment for different parts of body
	4 <sup>th</sup>	Guideline to use personal protective equipment
7 <sup>th</sup>	1 <sup>st</sup>	Guideline to use personal protective equipment
	2 <sup>nd</sup>	Fundamentals of fire

	3 <sup>rd</sup>	Elements of fire
	4 <sup>th</sup>	Terms and definition in Fire Management
8 <sup>th</sup>	1 <sup>st</sup>	Classification of fire and fire extinguishing technique
	2 <sup>nd</sup>	Causes of fire and its prevention
	3 <sup>rd</sup>	Different types of fire extinguisher and their application
	4 <sup>th</sup>	Different types of fire extinguisher and their application
9 <sup>th</sup>	1 <sup>st</sup>	Precaution for prevention of fire
	2 <sup>nd</sup>	Classification of Chemical Hazards
	3 <sup>rd</sup>	Factors influencing effects of toxic chemicals
	4 <sup>th</sup>	Terms related to concentration level as per industrial hygiene norm
10 <sup>th</sup>	1 <sup>st</sup>	Control measure for Chemical hazards
	2 <sup>nd</sup>	Introduction to electrical safety
	3 <sup>rd</sup>	Precaution and safety in use of electricity
	4 <sup>th</sup>	Precaution and safety in use of electricity
11 <sup>th</sup>	1 <sup>st</sup>	Electrical hazards in Industrial system
	2 <sup>nd</sup>	Electrical hazards in Industrial system
	3 <sup>rd</sup>	Safety provision to prevent electrical hazards
	4 <sup>th</sup>	Safety provision to prevent electrical hazards
12 <sup>th</sup>	1 <sup>st</sup>	Sources of mechanical hazards
	2 <sup>nd</sup>	Machine Guard and Safety devices
	3 <sup>rd</sup>	Machine Guard and Safety devices
	4 <sup>th</sup>	Pressure hazards and pressure vessel
13 <sup>th</sup>	1 <sup>st</sup>	Pressure hazards and pressure vessel
	2 <sup>nd</sup>	Safety measures in use of gas cylinders
	3 <sup>rd</sup>	Safety measures in use of gas cylinders
	4 <sup>th</sup>	Types of maintenance-Breakdown
14 <sup>TH</sup>	1 <sup>st</sup>	Types of maintenance-Annual
	2 <sup>nd</sup>	Types of maintenance-Preventive
	3 <sup>rd</sup>	Case Study regarding plant safety
	4 <sup>th</sup>	Case Study regarding plant safety
15 <sup>TH</sup>	1 <sup>st</sup>	Objective Questions on Plant Safety Management
	2 <sup>nd</sup>	Objective Questions on Plant Safety Management
	3 <sup>rd</sup>	Objective Questions on Plant Safety Management
	4 <sup>th</sup>	Objective Questions on Plant Safety Management