

GOVT. POLYTECHNIC MAYURBHANJ

LESSON PLAN FOR CORROSION ENGINEERING

SUMMER-2023-24

Discipline : METALLURGY ENGG.		Semester: 6th		Name of the Teaching Faculty : SUBHASHMITA SAHOO		
Subject: Corrosion Engg(CE) Course Code:TH4		No. of Days / per week class allotted		Semester From date : 16.01.2024 To Date : 26.04.2024		
MONTH	Week	Day	Unit	Topics		
JANUARY	3rd		UNIT-1	Introduction to Corrosion		
		3rd		Introduction to Corrosion		
	4th	2nd		Define Corrosion, Explain Cost and Losses of Corrosion		
		3rd		Importances of Corrosion Studies		
		2nd		Discuss about types of Corrosion and rate of Corrosion		
		3rd		Differentiate between Chemical and Electrochemical Corrosion		
	5th			UNIT-2	Corrosion Principles	
		3rd		Explain the Electrochemical Principle of Corrosion		
		2nd		State the Faraday's Law		
		3rd		Causes of Faraday's Law and its Deviation		
FEBRUARY	1ST		UNIT-3	Types of Electrochemical Cells		
	2ND	2nd		Discuss about Galvanic Cell		
		3rd		Discuss about Concentration Cell		
		2nd		Discuss about Electrolytic Cell		
				UNIT-4	Electrode Potential	
	3rd	2nd		Describe and State the Significance of Electrode Potential		
		3rd		Discuss in detail about EMF and Galvanic Series		
				UNIT-5	Different Forms of Corrosion	
		3rd		Various Factors affecting and Prevention of the Following Corrosion		
	4TH	2nd		Atmospheric and Intergranular Corrosion		
		3rd		Pitting Corrosion		
		2nd		Galvanic Corrosion		
		3rd		High Temperature Oxidation Corrosion		
	5th	1st		CLASS TEST-1		
2nd			CLASS TEST-1			
2nd	3rd		Cavitation and Fretting Corrosion			
	2nd		Stray Current Corrosion			
	3rd		Stress Corrosion / Cracking			

MARCH	3rd			Corrosion Fatigue
		3rd	UNIT-6	Corrosion Prevention
		2nd		Studing the Physical Characteristics of Protective Coating
	4th	3rd		Studing the Chemical Characteristics of Protective Coating
		2nd		Studing the Mechanical Characteristics of Proctective Coating
		3rd		Corrosion Prevention by Inhibition
		2nd		Corrosion Control by Passivation
		3rd		Discuss about Cathodic and Anodic Protection
	5th	2nd		INTERNAL-EXAM
		3rd		INTERNAL-EXAM
2nd			Studing the Mechanical Characteristics of Proctective Coating	
3rd			Studing the Mechanical Characteristics of Proctective Coating	
APRIL	1st	2nd		Studing the Mechanical Characteristics of Proctective Coating
		3rd		Corrosion Control by Passivation
	2nd	2nd	Revision	Corrosion Control by Passivation
		3rd		Revision on unit 1-3
		2nd		Revision on unit 1-3
		3rd		Revision on unit 1-3
	3rd	2nd		CLASS TEST -2
		3rd		CLASS TEST -2
		2nd		Revision on unit 4-6
		3rd		Previous year question discussion
	4th	2nd	Revision	Previous year question discussion
		3rd		Previous year question discussion
		2nd		Previous year question discussion

Subject Expert
Metallurgy Engineering

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