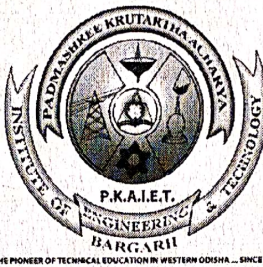


PADMASHREE KRUTARTHA ACHARYA INSTITUTE OF
ENGINEERING & TECHNOLOGY, BARGARH



LESSON PLAN
Session-2024-2025

Semester: 6th Discipline: Metallurgy Engg.

Subject: Corrosion Engg. (TH-04-A)

Name of the Teaching Faculty: Biswajit Acharya

Subject: Corrosion Engg.

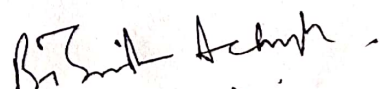
No. of Days/per week class allotted : 4

Semester From Date : 04-2-2025

To Date: 22-2-2025

No. of Weeks : 3

Week	Class Day	Theory /Practical Topics
1.	1	Corrosion & its meaning.
	2	Importance of Corrosion study.
	3	Demerits of Corrosion.
	4	Different types of Corrosions.
2.	5	Dry & Wet Corrosion types.
	6	Chemical Corrosion.
	7	Electrochemical Corrosion.
	8	Rate of Corrosion.
3.	9	Fundamentals of Electrolysis
	10	Electrolytes (Strong & weak)
	11	Faraday's first law of Electrolysis
	12	Faraday's second law of Electrolysis


Signature of the Faculty

Subject: Corrosion Engg. No. of Days/per week class allotted : 4

Semester From Date : 24-02-2025 To Date: 15-03-2025 No. of Weeks : 3

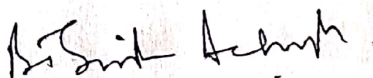
Week	Class Day	Theory / Practical Topics
4	13	Derivation of Faraday's Law,
	14	Electrochemical Reactions.
	15	Oxidation and Reduction Reactions.
	16	Electrode potential & Electrochemical Series.
5	17	Electrochemical Cells & types.
	18	Galvanic cells. Examples.
	19	Electrolytic cells. Examples.
	20	Concentration cells. Examples.
6	21	Significance of Electrode potential.
	22	Galvanic Series
	23	Electromotive Force
	24	Calculation of EMF of a cell.

Shrawan Acharya
Signature of the Faculty

Subject: Corrosion Engg. No. of Days/per week class allotted : 4

Semester From Date : 17-3-2025 To Date: 05-4-2025 No. of Weeks : 03

Week	Class Day	Theory / Practical Topics
7	25	Cathodic protection.
	26	Anodic protection.
	27	Mechanism of Corrosion.
	28	Factors affecting corrosion.
8	29	-do-
	30	Atmospheric Corrosion.
	31	Intergranular corrosion.
	32	Pitting Corrosion.
9	33	Galvanic Corrosion.
	34	Stress Corrosion.
	35	Cavitation Corrosion.
	36	Fretting Corrosion.


Signature of the Faculty

Subject: Corrosion Engg. No. of Days/per week class allotted: 4

Semester From Date: 07-4-2025 To Date: 26-4-2025 No. of Weeks: 3

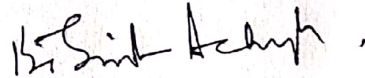
Week	Class Day	Theory /Practical Topics
10	37	High temperature oxidation Corrosion,
	38	Stray Corrosion,
	39	Corrosion fatigue,
	40	Loss due to Corrosion.
11	41	Control and prevention methods.
	42	Protective Coatings.
	43	Physical properties of Coatings.
	44	Chemical properties of Coatings,
12	45	Mechanical properties of Coatings.
	46	prevention by inhibition,
	47	prevention by passivation,
	48	Protection of Environment from Corrosion.

Bhawit Acharya
Signature of the Faculty

Subject: Corrosion Engg. No. of Days/per week class allotted : 4

Semester From Date : 28-4-2025 To Date: 17-05-2025 No. of Weeks : 3

Week	Class Day	Theory/Practical Topics
13	49	Sacrificial Anodic protection
	50	Sacrificial Cathodic protection,
	51	Other protection methods of Corrosions.
	52	Corrosion preventive materials.
14	53	Electrolytic protection of Metals.
	54	Class test - 1
	55	class test - 2
	56	class test - 3
15	57	class test - 4
	58	Doubt clearing class.
	59	Doubt clearing class.
	60	Doubt clearing class.


Signature of the Faculty