

## Lesson Plan

Subject : INDUSTRIAL METALLURGY (TH-3)


Name of faculty: SAGARIKA PALEI

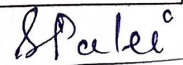
Semester: 4<sup>th</sup>

Class allotted: 3p/week

Branch: Metallurgical Engg. Session: 2026(S)

Discipline	Semester	From date: 22/12/2025 To date: 18/04/2026	Teaching Aid
Subject:	No. of days/ per week	Theory/ Practical –Topics/Lesson	
Week	Date/Period		
1	22/12/2025 TO 27/12/2025	<b>Welding Processes:</b> Gas Welding: types of flames, equipment, steps,	White Board Marker Smart board
2	29/12/2025 TO 03/01/2026	advantages, disadvantages and application of gas welding ) , Arc Welding :various arc welding process	White Board Marker Smart board
3	05/01/2026 TO 10/01/2026	such as -Gas Metal Arc Welding (GMAW) , Gas Tungsten Arc Welding (GTAW) ,Shielded Metal Arc Welding (SMAW),	White Board Marker Smart board
4	12/01/2026 TO 17/01/2026	Porosity, cracking, incomplete fusion, undercut Submerged Arc Welding (SAW)  Thermit Welding : principle, procedure,	White Board Marker Smart board
5	19/01/2026 TO 24/01/2026	advantages and disadvantages of Thermit welding,  :Friction Stir Welding ,  Ultrasonic Welding,	White Board Marker Smart board

  
Signature of H.O.D

  
Signature of Faculty

6	27/01/2026 TO 31/01/2026	Additive Manufacturing with Metal Joining Advanced Robotics and Automation in Metal Joining,	White Board Marker Smart board
7	02/02/2026 TO 07/02/2026	Heat Affected Zone (HAZ) and its Effects, Weld Defects: Types of defects  <b>Joining of Dissimilar Metals &amp; Metallurgical Aspects of Metal :</b>	White Board Marker Smart board
8	09/02/2026 TO 14/02/2026	Brazing and Soldering : Brazing- principle and various brazing methods of common ferrous and nonferrous metals.	White Board Marker Smart board
9	16/02/2026 TO 21/02/2026	5 Soldering and various types of solders, basic steps of soldering of common metals	White Board Marker Smart board
10	23/02/2026 TO 28/02/2026	<b>Powder Metallurgy :</b> Introduction to powder metallurgy,	Marker White Board Smart board
11	02/03/2026 TO 07/03/2026	advantages, disadvantages and applications of Powder Metallurgy, ,	White Board Marker Smart board
12	09/03/2026 TO 14/03/2026	primary and secondary characteristics of powders different methods of powder production	Marker White Board Smart board
13	16/03/2026 TO 18/03/2026	., different die-compaction techniques , continuous compaction	White Board Marker Smart board
14	23/03/2026 TO 28/03/2026	<b>.Corrosion</b> Introduction to corrosion, electrochemical corrosion and chemical corrosion,	White Board Marker Smart board

Signature of H.O.D

Signature of Faculty

15	30/03/2026 TO 04/03/2026	corrosion rate, Faraday's law of electrolysis and its deviation, EMF series & Galvanic Series,	White Board Marker Smart board
16	06/04/2026 TO 11/04/2026	types of corrosion (Atmospheric Corrosion, , Galvanic, Intergranular corrosion, Stress corrosion cracking, corrosion fatigue) .	White Board Marker Smart board
17	13/04/2026 TO 18/04/2026	Corrosion Prevention Methods: cathodic Protection, Anodic protection, Coatings & corrosionInhibitors	White Board Marker Smart board

Signature of H.O.D

Signature of Faculty