

LESSON PLAN 2025(W)

SUBJECT:- MINERAL PROCESSING

SUBJECT CODE:-TH-2

SEMESTER:-3rd

BRANCH:-METALLURGICAL

NAME OF FACULTY:- SAGARIKA PALEI

CLASS ALLOTTED:-3P/WEEK

WEEKS	DATE	DATE :- FROM- 14/07/2025 TO 15/11/2025		TEACHING AID
		THEORY- TOPIC/LESSON		
1	15/07/2025 TO 19/07/2025	Definition and importance , Role in the metallurgy industry , Various mineral resources of India , Mineral and Ore , Types of Ores Metallic ores (e.g., iron, copper, gold) ,		White board & Marker
2	21/07/2025 TO 26/07/2025	Non-metallic ores (e.g., limestone, phosphate) ,scope and objective of Ore dressing ,Different physical and chemical property of ore with their application.to mineral dressing		White board & Marker
3	28/07/2025 TO 02/08/2025	Size Reduction Importance of Comminution in mineral processing , Mechanisms of size reduction ,		White board & Marker
4	04/08/2025 TO 09/08/2025	Blake jaw Crusher ,Dodge jaw Crusher		White board & Marker
5	11/08/2025 TO 16/08/2025	Roll crusher & angle of Nip ,capacity and reduction ratio of crusher,		White board & Marker
6	18/08/2025 TO 23/08/2025	Laws of Crushing ,Ball mill operation ,		White board & Marker
7	25/08/2025 TO 30/08/2025	open circuit grinding and close circuit grinding		White board & Marker
8	01/09/2025 TO 06/09/2025	Sizing & Concentration Methods Ro-tap Sieve Shaker Particle size analysis,		White board & Marker
9	08/09/2025 TO 13/09/2025	, Basic fundamentals & principle of jigging		White board & Marker
10	15/09/2025 TO 20/09/2025	operations and application of wilfley table principle of heavy media separations ,		White board & Marker
11	22/09/2025 TO 27/09/2025	industrial process using heavy liquid and heavy suspensions (Du - Pont process & Chance process)		White board & Marker
12	08/10/2025 TO 11/10/2025	Principle of froth flotation practical utility of frother, collector, modifier, activators, depressant (without physic – chemical Principle)		White board & Marker

13/10/2025 TO 18/10/2025	Magnetic and Electrostatic separator with their application to mineral dressing(Two Drum Ball-Norton Wet magnetic separator ,	White board & Marker
20/10/2025 TO 25/10/2025	High Tension or Huff's Electrostatic separation) Advanced Communiton Techniques: High-Pressure Grinding Rolls (HPGR), Ultra-Fine Grinding (UFG),	White board & Marker
27/10/2025 TO 01/11/2025	Microwave-Assisted Comminution, Advanced Gravity Separation Techniques: Multi-Gravity Separator (MGS), Advanced Flotation Techniques: Microbubble & Nanobubble Flotation,	White board & Marker
03/11/2025 TO 08/11/2025	Magnetic & Electrostatic Separation: High-Intensity Magnetic Separation (HIMS), Sustainable & Eco-Friendly Mineral Processing: Dry Beneficiation Technique, Zero-Waste Processing	White board & Marker
10/11/2025 TO 15/11/2025	Revision.....	White board & Marker

Signature of NOD



Signature of Faculty

