LESSON PLAN				
Discipline: **Metallurgical Engineering**			Semester: **4TH Semester**	Name of the Teaching Faculty: **Er Sitanjali Khuntia**
Subject: **MATERIAL CHARCTERIZATION LAB** Sub code: **(PR 3)M1**			No of days /week class allotted:**2**	Semester from Date: **22/12/2025 to 18/04/2026** No of weeks: **16**
Month	*week*	*No of periods available*	*Class Day*	*Theory topics*
DECEMBER	1st	1P	22/12/25	Briefing about the Syllabus
	2nd	1P	29/12/25	Metallographic study of cylindrical/cubical nonferrous alloy sample by grinding, polishing and etching.
JANUARY	3rd	1P	05/01/26	Lab Record Write Lab Record Submission and Check
	4th	1P	12/01/26	Metallographic study of thin sheet of ferrous sample by using mounting press
	5th	1P	19/01/26	Lab Record Write Lab Record Submission and Check
FEBRUARY	6th	1P	02/02/26	Preparation of sample for study in SEM using electro polishing technique
	7th	1P	09/02/26	Lab Record Write Lab Record Submission and Check
	8th	1P	16/02/26	Determination of grain size by linear intercept method using photomicrography
	9th	1P	23/02/26	Lab Record Write Lab Record Submission and Check
MARCH	10th	1P	02/03/26	Fractographic study of tensile tested sample
	11th	1P	09/03/26	Lab Record Write Lab Record Submission and Check
	12th	1P	16/03/26	Determining the crystal structure and lattice parameters of a material using XRD.
	13th	1P	23/03/26	Lab Record Write Lab Record Submission and Check
	14th	1P	30/03/26	Studying phase transitions and heat capacity changes with temperature using DSC
APRIL	15th	1P	06/04/26	Lab Record Write Lab Record Submission and Check
	16th	1P	13/04/26	Study of various SEM and TEM micrographs Lab Record Write Lab Record Submission and Check

22.12.25

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