

LESSON PLAN

Discipline: **Metallurgy Engineering**

Semester: **3rd semester**

Name of the Teaching Faculty **Ms. Sitanjali Khuntia**

Subject: **NDT LAB (M4)**
Sub code: **Pr 4**

No of days /week
class
allotted: **04/week**

Semester from Date: **01.07.2026- 05.11.2026**
No of weeks:

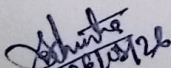
Course Outcomes (COs)

CO1. Apply Various NDT Techniques: Demonstrate proficiency in conducting Visual Inspection (VI), Dye Penetrant Testing (DPT), Magnetic Particle Testing (MPT), Ultrasonic Testing (UT), and Eddy Current Testing (ECT) for detecting material defects.

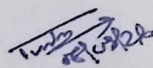
CO2. Interpret NDT Results for Quality Control: Analyze and interpret test results to assess material integrity, identify defects, and recommend corrective actions in manufacturing and maintenance applications.

CO3. Ensure Safe and Effective NDT Practices: Follow safety protocols, equipment handling guidelines, and industry standards (ASNT, ASTM, ISO) to perform NDT procedures efficiently in real-world industrial settings.

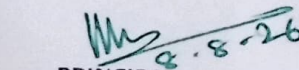
Month	Week	No of periods available	Class Day	Practical topics to be covered	CO
JULY	1 ST	04P	03-07-2026	Briefing about the Syllabus	CO3
	2 ND	04P	10-07-2026	Find defect using liquid penetrant	CO1,CO2
	3 RD	04P	17-07-2026	Lab Record Write	CO2
	4 TH	04P	24-07-2026	Lab Record Submission & Check	CO2
	5 TH	04P	31-07-2026	Study of magnetic crack detector and inspection of defects by using it.	CO1,CO2
AUG	1 ST	04P	07-08-2026	Study of magnetic crack detector and inspection of defects by using it.	CO1,CO2, CO3
	2 ND	04P	14-08-2026	Lab Record Write	CO2
	3 RD	04P	21-08-2026	Lab Record Submission & Check	CO2
	4 TH	04P	28-08-2026	Study of ultrasonic flaw detector & inspection of defects by using UFD	CO1,CO2
SEPT	1 ST	04P	11-09-2026	Study of ultrasonic flaw detector & inspection of defects by using UFD Lab Record Write	CO1,CO2
	2 ND	04P	18-09-2026	Lab Record Submission & Check	CO2
	3 RD	04P	25-09-2026	Measurement of temperature by using pyrometer and thermocouples.	CO1,CO3
OCT	1 ST	04P	09-10-2026	Lab Record Submission & Check	CO2
	2 ND	04P	16-10-2026	VIVA VOCE	CO1,CO2, CO3
	3 RD	04P	23-10-2026	VIVA VOCE	CO1,CO2, CO3
	4 TH	04P	30-10-2026	Lab Record Submission & Check	CO2, CO3


PREPARED BY

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