

LESSON PLAN

Discipline: Metallurgical Engineering	Semester: 5th Semester	Name of the Teaching Faculty: Er Suvendu Muduli
Subject: FOUNDRY TECHNOLOGY LAB Sub code: (PR:3) MTPE305	No of days /week class allotted:8	Semester from Date: 01/07/2026 to 05/11/2026 No of weeks: 19

LEARNING OUT COMES:

CO 1 - Know the Casting Processes

CO2- Familiarize with various casting methods such as sand casting, shell moulding, die-casting, and investment casting.

CO3- Learn how to select appropriate materials for casting based on their properties.

CO4- Develop practical skills in pattern design, mould preparation, and the use of core boxes.

CO5- Gain experience with pouring molten metal into moulds.

CO6- Appreciate the importance of surface finish and dimensional accuracy in cast parts.

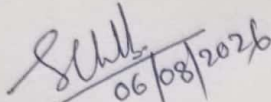
Month	week	No of periods available	Class Day	Theory topics	CO
JULY	1st	4P	03-07-2026	Briefing about syllabus	CO1
	2nd	8P	07-07-2026	To determine the tensile strength of the given sand sample by Universal Sand Testing Machine	CO1
			10-07-2026	Lab record checking	CO1
	3rd	8P	14-07-2026	To find the green compression strength of the sand sample by Universal Sand Testing Machine	CO1
			17-07-2026	Lab record checking	CO1
	4TH	8P	21-07-2026	To find the green shear strength of the sand sample by Universal Sand Testing Machine	CO1

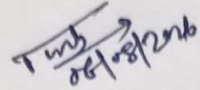
			24-07-2026	Lab record checking and submission	CO2
			28-07-2026	To determine the percentage of clay present in the given sand sample.	CO2
	5th	8P	31-07-2026	Lab record checking	CO2
			04-08-2026	To determine the permeability number of the given sample of sand.	CO2
			06-08-2026	Lab record checking and submission	
	2nd	8P	07-08-2026	To determine the mould hardness	CO2
			13-08-2026	Lab record checking	
	3rd	8P	14-08-2026	To determine of Grain Fineness Number of given Sand.	CO3
			20-08-2026	Lab record checking and submission	CO3
	4th	8P	21-08-2026	Study of the use of foundry tools and other equipment.	CO3
					CO4
AUG	5th	8P	28-08-2026	To prepare a mould in a sand mould using given pattern	
SEPT	1st	4P	03-09-2026	Lab record checking and submission	CO4

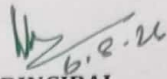
			10-09-2026	To prepare at least one ferrous or non-ferrous casting.	CO4	
					CO4	
	2nd	8P	11-09-2026	Lab record checking		
			17-09-2026	To study core and core making	CO4	
				18-09-2026	Toper form strength tests on sands	CO4
					24-09-2026	Lab record checking and submission
						CO5
			25-09-2026	Discussion about topic		
		1st		01-10-2026	Lab record checking	
			08-10-2026	Viva practice	CO5	
					CO5	
			2nd	8P	09-10-2026	Lab record checking and submission
			15-10-2026	To determine permeability number of green sand, core sand and raw sand	CO5	
						CO5
				3rd	8P	16-10-2026
			22-10-2026	To study the various types of investment casting process	CO6	
OCT	4th	8P	23-10-2026	Lab record checking and submission		

W

			29-10-2026	To find the distribution of sand grain using a shape of sieves and obtained the average grain fineness number	CO6
	5th	SP	30-10-2026	To prepare a pattern for given object for lost foam casting	CO6
NOV	1st	4P	05-11-2026	Lab record checking and submission.	CO6


 06/08/2026
 PREPARED BY
 SUVENDU MUDULI
 LECTURER (STAGE-II)
 OSME, KEONJHAR


 06/08/2026
 HOD
 METALLURGY DEPARTMENT
 OSME KEONJHAR


 6.8.26
 PRINCIPAL
 OSME, KEONJHAR