

GOVT POLYTECHNIC MAYURBHANJ, TIKARPADA LESSON PLAN OF MINERAL PROCESSING LAB ACADEMIC YEAR (2026-2027) WINTER			
DISCIPLINE: METALLURGY ENGINEERING		SEMESTER: 3 RD	NAME OF THE TEACHING FACULTY: SUBRAT KUMAR BEHARA
SUBJECT: MINERAL PROCESSING LAB, COURSE CODE: MTPC211		NO OF CLASS/PER WEEK CLASS ALLOTTED:02	SEMESTER FROM DATE:01.07.2026, TO DATE:05.11.2026, NO OF WEEKS: 17
WEEK	CLASS NO	NO OF EXPERIMENT	LECTURE TOPICS
1.	1.	EXPERIMENT-1	Briefing about the syllabus
	2.		Briefing about the syllabus
2.	3.		Study of laboratory jaw crusher and to perform a crushing test on the given sample and Calculate reduction ratio.
	4.		Study of laboratory jaw crusher and to perform a crushing test on the given sample and calculate reduction ratio.
3.	5.		Lab record writes
	6.		Lab record submission and check
4.	7.	EXPERIMENT-2	Study of laboratory ball mill and to perform a grinding test on the given sample, and to analyze size distribution in the product by sieve analysis and to calculate grindability index
	8.		Study of laboratory ball mill and to perform a grinding test on the given sample, and to analyze size distribution in the product by sieve analysis and to calculate grindability index
5.	9.		Lab record writes
	10.		Lab record submission and check
6.	11.	EXPERIMENT-3	Demonstration about wilfley table
	12.		Demonstration about wilfley table
7.	13.		Experiment on tabling
	14.		Lab record write
8.	15.		Lab record submission & check
	16.	EXPERIMENT-4	Explain about flotation process, experiment on flotation
9.	17.		Explain about flotation process, experiment on flotation
	18.		Lab record write
10.	19.	EXPERIMENT-5	Lab record submission & check
	20.		Crushing of ore in a roll crusher, jaw crusher, and determination of average size by sieving.
11.	21.		Crushing of ore in a roll crusher, jaw crusher, and determination of average size by sieving.
	22.		Lab record writes
12.	23.		Lab record submission and check
	24.		Experimental practice and mock test
13.	25.	EXPERIMENT-6	Experimental practice and mock test
	26.		Study of magnetic separator, and effect of field on efficiency of the process
14.	27.		Study of magnetic separator, and effect of field on efficiency of the process
	28.		Lab record writes
15.	29.		Lab record submission and check
	30.	EXPERIMENT-7	Jigging: separation of coarse particles based on differential settling.
16.	31.		Jigging: separation of coarse particles based on differential settling.
	32.		Lab record writes
17.	33.		Lab record submission and check
	34.		Record submission