| Course code | Course Name | L-T-P - Credits | Year of Introduction |
|---|---|---|---|
| **MT231** | **MINERAL DRESSING LAB** | **0-0-3-1** | **2016** |
| **Prerequisite :** MT203 Mineral beneficiation | | | |

**Course Objectives**

- To know the concepts of mineral dressing and to apply them for the concentration of minerals from its ore.

**List of Exercises/Experiments :** ( Minimum 12 are mandatory)

1. Calculation of Screen Effectiveness

2. Sieve analysis

3. Sub sieve analysis - water Elutriation

4. Sub sieve analysis - air Elutriation

5. Determination of the efficiency of crushing of a Jaw crusher and validate Bonds Law

6. Determination of the efficiency of crushing Roll crusher

7. Determination of the efficiency of crushing Hammer mill

8. Analysis using Ball mill

9. Effect of milling variables on grinding using ball mill

10. Beaker Decantation

11. Sedimentation

12. Cyclone separator

13. Filtration – leaf filter

14. Filtration – plate and frame filter

15. Rotary drum

16. Pipette analysis

17. Froth Flotation

18. Magnetic separation

**Expected Outcome** .

At the end of this course, the students would be able to:
1. Understand the methods of crushing, grinding and concentration processes
2. Have extensive experience with gravity separation, magnetic separation as well as dewatering and filtering methods
3. Separate minerals not conducive to traditional concentration methods by hydrometallurgical methods
4. Apply the concepts in the design and development of machines for separating the low grade ore economically
5. Knowledge on the applicability of mineral processing to environmental remediation and recycling
6. Convert from bench-scale to pilot-scale test campaigns in mineral processing