COAL AND MINERAL PROCESS EQUIPMENT SELECTION LABORATORY

Course Type	Course Code	Name of Course	L	T	P	Credit
DC	FMC306	Coal and mineral process equipment selection laboratory	0	0	3	3

Course Objective
The objective of the course is to make students capable of selecting the right equipment through worked-out examples.
Learning Outcomes
Upon successful completion of this course, students will be able to make the selection and sizing of coal and mineral processing equipment for size reduction, separation, and quality upgradation

Unit No.	Topics to be Covered	Lecture Hours	Learning Outcome
1	Problem-based case study on primary crusher selection	3	Students will learn the selection and sizing of the primary crusher
2	Problem-based case study on secondary and tertiary crusher selection	3	Students will learn the selection and sizing of the secondary and tertiary
3	Problem-based case study on coal crusher selection	3	Students will learn the selection and sizing of the single, double and triple roll crushers
4	Problem-based case study on rod mill selection	3	Students will learn the selection and sizing of the rod mills
5	Problem-based case study on ball mill selection	3	Students will learn the selection and sizing of the ball mills
6	Triple deck and double deck screen selection	3	Students will learn the selection and sizing of the double and triple deck screens
7	Problem-based case study on single deck screen selection	3	Students will learn the selection and sizing of the single deck screens
8	Problem-based case study on classifier selection	3	Students will learn the selection and sizing of the classifiers
9	Problem-based case study on washer selection	3	Students will learn the selection and sizing of the washers
10	Problem-based case study on flotation cell selection	3	Students will learn the selection and sizing of the flotation cells

Text Books:

S. No.	Resource/Book Name	Author(s)/Editor(s)	Publisher
1	Mineral Processing Plant Design	Andrew L. Mular, Roshan Boman Bhappu	Society of Mining Engineers (AIME)
2	Mineral Processing Design and Operation: An Introduction	A. Gupta and D.S. Yan	Elsevier

Reference Books:

S. No.	Resource/Book Name	Author(s)/Editor(s)	Publisher
1	Process Selection in Extractive Metallurgy	Peter C. Hayes	Hayes Publishing
2	Mineral Processing Plant Design, Practice, and Control: Proceedings. Volumes I & II.	Andrew L. Mular, Doug N. Halbe, Derek John Barratt	Society for Mining, Metallurgy, and Exploration