

GUJARAT TECHNOLOGICAL UNIVERSITY

B. E. SEMESTER: VIII

MINING ENGINEERING

Subject Name: **MINE & MINERAL ECONOMICS**

Sr. No	Course Content	Total Hrs.
1.	Introduction: Economic importance of the mineral industry; mining economy, risky nature of the mining industry, State and the mining industry; national mineral policy. Royalty, taxes and duties; imports and exports.	4
2.	Mineral resource concept, classification and estimation. Conservation of mineral resource scope and limitations. Small mines and their socio-economic significance. Mineral Information System.	6
3.	Evaluation of Mineral Deposits: Standard controlling factors, calculation of tonnage factors and mineable ore limitations, Ore classification.	6
4.	Loss of mineral in mining : Classification and incorporation of losses; coefficient of completeness of mineral extraction; dilution and recovery.	6
5.	Cost of mining : Capital and operating costs; factors affecting operating cost; methods of estimating future costs; standard cost and forecast; budget and budgetary control.	6
6.	Mine Sampling : Theory of sampling, method of sampling employed in different cases, precaution to be taken; Reduction, Calculation of overage reef values and widths; average stopping values and width and average milling values and widths; estimation of average-tonnages and value in mine-percentage sorted, percentage recovered, sampling procedure and precaution of sampling alluvial deposits and dumps, estimation of reserves.	9
7.	Mine Valuation: Different methods and their application; depreciation and amortisation and redemption of capital; Life of mine; its present value, Reports on valuation.	5

Text Books/ Reference Books: