

GUJARAT TECHNOLOGICAL UNIVERSITY

B. E. SEMESTER: VII MINING ENGINEERING

Subject Name: **Mine Planning**

Subject Code: **172201**

Teaching Scheme				Evaluation Scheme			
Theory	Tutorial	Practical	Total	University Exam (E)		Mid Sem Exam (Theory) (M)	Practical (Internal)
				Theory	Practical		
4	0	2	6	70	30	30	20

Sr. No	Course Content	Total Hrs.
1.	Introduction: Mine planning and its components, role of planning in mining ventures; technical information for mine planning , reserve estimation	8
2.	Mineral inventory and ore reserves, The basis difference cut off grade, its determination. Grade Tonnage curves and their computation	8
3.	Surface Mine Planning : Bench geometry and mine layouts, planning steps; determination of mine size and Taylor's mine life rule; ultimate pit configuration; mining program; haul road design	10
4.	Underground Mine Planning: Mining system and sub-systems; optimal geometrical size of a mine; planning and scheduling of production.	8
5.	Determination of optimum Size of mine, life of mine, rate of production and mining losses, Optimization of mine design on economic considerations.	8
6.	Feasibility study: Its functions and preparation of feasibility report for metallic and non-metallic minerals	8
7.	Details Project Repot	6

Text Books/ Reference Books:

1. Mineral Economics – R.K.Sinha & N.L.Sharma
2. A handbook of Surface Mine Technology- Samir Kumar Das
3. An Introduction to Mineral Economics- Kaulir Kisor Chatterjee
4. Mine Economics- Arvind Kumar