

GUJARAT TECHNOLOGICAL UNIVERSITY

B. E. SEMESTER: VII

MINING ENGINEERING

Subject Name: **Environment Management in Mine**

Subject Code: **172203**

Teaching Scheme				Evaluation Scheme			
Theory	Tutorial	Practical	Total	University Exam (E)		Mid Sem Exam (Theory) (M)	Practical (Internal)
				Theory	Practical		
3	0	2	5	70	30	30	20

Sr. No	Course Content	Total Hrs.
1.	Environmental impact of Mining Projects on its various stages	3
2.	Waste Rock Mill Tailing disposal: Characterization, Site selection, Rock and Mill Tailing disposal: Potential environment impact, Decommissioning reclamation	6
3.	Treatment of Acid Mine Drainage: Active and passive treatment technologies including constructed wetlands	5
4.	Ecological Restoration of Mining Sites: Ecological restoration, Natural restoration, Restoration planning, goal and objectives, Restoration techniques, Resilience and restoration success	6
5.	Post Mining Land Use: Management principles, Inventory of pre-mining land use, Post mining land uses, Selection of post mining land use	6
6.	Mine Closure: Causes, mine closure objective, Planning, Closure design, Risk and Socio economic response of mine closure, Closure of mine entries	6
7.	Preparation of Environment management plan: Public hearing, collecting baseline data, Environment impact assessment and prediction, Environment management plan, environment monitoring and management	5

8.	Environment Protection Act 1986 and other relevant provisions for the environment applicable to mining projects	5
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Text Books/ Reference Books:

1. Best Practice Environmental Management in mining
2. Environmental Management in mining areas – N.C.Saxena, Gurdeep Singh, Rekha Ghosh
3. Mine Closure – N.C.Saxena
4. Introduction to Environmental Impact Assessment – John Glasson, Riki Therivel & Andrew Chadwi