

# GUJARAT TECHNOLOGICAL UNIVERSITY

B. E. SEMESTER: VI

Mining Engineering

Subject Name: **Mine Surface Environment**

Subject Code: **162205**

Teaching Scheme				Evaluation Scheme		
Theory	Tutorial	Practical	Total	University Exam (Theory) (E)	Mid Sem Exam (Theory) (M)	Practical (I)
4	0	2	6	70	30	50

Sr. No	Course Content	Total Hrs.
1.	<b>Introduction :</b> Environmental issues in mineral industry -	2
2.	<b>Socio-Economic Environment:</b> Parameters, economic impacts direct and Indirect, social impact demography, housing, local services, socio cultural -	8
3.	<b>Land Environment:</b> Visual impacts; landscape analysis; land use pattern; landscape planning; degradation of soil quality	10
4.	<b>Water Environment:</b> Natural drainage pattern, water table, Impact on surface water and on sub-surface waters, Acid Mine Drainage; AMD Generating Minerals, AMD Formation, its impact on the environment, problems in India	10
5.	<b>Air Environment:</b> Gaseous and particulate air pollution sources, monitoring and control, Airborne Repairable Dust: Generation, dispersion, measurement and control	10
6.	<b>Ecological Environment:</b> Impacts on flora and fauna	4

7.	<b>Noise:</b> Impact on human health, noise level, noise abatement strategies, standards -	6
8.	<b>Blasting:</b> Environment aspects of ground and air Vibrations, fly rock, Dust	6

### **Reference Books:**

1. Elements of Mining Technology – Vol. II
2. Mine Ventilation – G.B.Mishra
3. U.M.S.
4. Mine Rescue & Disaster – A.Ramlu