

ENVIRONMENTAL ASPECTS OF MINING

Module-I:

Introduction:Sustainable development, environmental carrying capacity - concepts & principles; Environmental impacts of mining and associated activities.
Ecology:Introduction to ecology, ecosystem structures and functions.

Module-II:

Air pollution:Atmospheric composition and meteorology; Sources of air pollution – point and non-point; Emission factors; Control measures – extraction, suppression and consolidation of dust.

Noise and vibration:Basic concepts, sources, monitoring and control measures. Water pollution:Global hydrological cycle; Self-purification mechanism, sources of water pollution, important parameters-pH, turbidity, oil & grease, nitrates, DO, BOD, COD; Eutrophication, deoxygenation, acid mine drainage and heavy metal pollution–preventive and control measures.

Module-III:

Land environment:Land degradation due to mining; Physical and biological reclamation. Environmental administration: Laws related to mining environment; EIA of mining projects.

Module-IV:

Land Acquisition & Revenue:Concepts: Related laws and regulations. Corporate Social Responsibility:Concepts and principles. Mine closure:Concepts and principles.