

# Environmental Management

**Course Code:** CT-321

**Credit Hours:** 3 + 1

## Course Outline:

1. Introduction to solid waste, classification of solid waste. Collection methods, transfer and transportation of solid waste, type of equipment, recycling, reuse and disposal of solid waste
2. BOD and COD
3. Air pollution: Introduction to air pollution, sources of air pollution, its effects, classification and control
4. Introduction to EIA, Functions of Environmental Protection Council, role of provincial EPAs, Environmental Protection Act, 1997, National Environmental Quality Standards
5. Introduction to noise pollution and its mitigation measures
6. Environmental health and safety

## List of Practicals

1. To determine the Bio-Chemical Oxygen Demand of waste water sample
2. To determine the amount of suspended solids in drinking water and waste water sample by photometric method
3. To determine the amount of settleable solids in waste sample
4. To determine the turbidity of continuous flow by Low Range Turbidimeter
5. To determine the amount of volatile suspended solids (MLVSS) in waste water sample by gravimetric method
6. Determination of Oil and Grease by Partition-Gravimetric Method in wastewater
7. Determination of the impact of discharges on the surface water (river, canal etc )
8. Composition of solid waste (percentage)
9. Energy Value
10. Moisture content
11. Nox and Sox by hand meters
12. Carbon monoxide by hand meters.

## Recommended Books:

1. Peavy, "Introduction to Environmental Engineering", McGraw Hill
2. Mckenze, "Environmental Engineering", McGraw Hill
3. IUCN, "Environmental Profile of Pakistan"
4. IUCN, "National Conservation Strategy"
5. ILO laws regulations