

6. Maitra, M.K.2002. Watershed Management; Project, Planning, Development and Implementation.
7. RajendraManeria, Environment Conservation and Planning.

ESS553 ENVIRONMENTAL POLLUTION AND MANAGEMENT

39hrs.

Course Outcomes:

CO1 Demonstrate various types of pollution and their impact on different environmental components.

CO2 Demonstrate various pollution mitigation measures.

CO3 Demonstrate the various forms of pollution and its impact on different components of environment.

CO4 Understand about biopollution.

UNIT I (13 Hours)

Thermal pollution- Sources, effects and control methods. Thermochemical and photochemical reactions in the atmosphere. Thermal extremes and their health impacts. Marine water pollution: Sources of marine pollution and control. Criteria employed for disposal of pollutants in marine system-coastal management.

UNIT II (13 Hours)

Indoor and outdoor air pollution: Sources, types, effects and control. Industrial air pollution-fugitive emission and source emission, preventive methods. Automobile pollution and mitigation measures. Soil pollution: Sources, physico-chemical and biological properties of soil, effects and control measures. Swachh Bharat Mission.

UNIT III (13 Hours)

Nuclear hazards: Sources, effects – nuclear accidents and ecological impacts, control measures. Light pollution: Definition, types, causes, measurement and prevention. Biopollution: Aeroallergens, biological components - pollen grains, fungi, effects, respiratory diseases and control methods.

References:

1. Aswathanarayana, U. Soil Resources & the Environment, Oxford & IBH publishing, New Delhi.
2. Dubey, R.C. and Maheshwari W.K., Text book of Microbiology, S.Chand and Co., New Delhi.
3. Meera Asthana and Astana D.K. 1990. Environmental pollution and Toxicology, Alka Printers.
4. Santra, S.C. Environmental Science, New Central Book Agency (Pvt.) Ltd., Kolkata.
5. Sharma, B.K. and Kaur. 1995. Environmental Chemistry, Goel Publishing House, Meerut.