Code	Subject Title	Cr. Hrs	Semester
CHEM-401	**Environmental Chemistry**	**2**	**VII**
Year	Discipline		
4	**Chemistry**		

SYLLABUS OUTLINE:

1. **Introduction:**
   History and significance of environmental degradation, impact of the modern life-style on environmental quality, resource dep} at environmental conservation and sustainability poverty and environmental degradation, environmental education , institutions for the protection of environment, inter-disc nature of environmental studies, environmental segments.

2. **Atmospheric pollution:**
   Importance of air, nature and composition of atmosphere, temperature and pressure profi of different layers of the atmosphere, common air pollutants and their sources, oxides of C, N, and S hydrologic cycle, green house effect and global warming, stratospheric ozone depletion, vehicular emissions, particulate matter and aerosols, airborne lead, acid rain and its impats, photochemical smog, photochemistry of the atmosphere, role of hydroradicals, indoor air quality.

3. **Water pollution and water treatment:**
   Importance of water, physical and chem. Properties of water, criteria for water quality, BOD and COD, sources of water pollution (industrial, agricultural, municipal and natural), fertilizers, pesticides, detergents, heaw metals, bio-accumulation and bio-impliflcat primary, secondary and advanced treatment of water.

RECOMMENDED BOOKS:

1. Kumar. Environmental Chemistry, Wiley Eastern, New Delhi.
2. J.W. Moore & EM. Moore, Environmental Chemistry, Academic Press, New York.
3. S. K. Banerji, Environmental Chemistry, Prentice Hafl, Delhi.
4. K. Banerji, Environmental Chemistry, Tata Publisher, Delhi.
5. Staneley E. Manahan, Environmental Chemistry, Brooks, California.
6. Neil, P.O. Environmental Chemistry, Chapmann, London.
7. Baird, C. Environmental Chemistry, Freeman, New York.