

**APPLIED CHEMISTRY (BS-ADP 8<sup>th</sup> Semester)**

<b>Module Code:</b>	<b>Chem-477</b>
<b>Module title:</b>	<b>Environmental Chemistry</b>
<b>Name of Scheme:</b>	<b>BS-ADP 8<sup>th</sup> Semester</b>
<b>Department:</b>	<b>School of Chemistry</b>
<b>Faculty:</b>	<b>Science</b>
<b>Module Type:</b>	<b>Compulsory</b>
<b>Module Rating:</b>	<b>2 credits</b>

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**OBJECTIVES**

The student will learn about the basic concepts of Environmental chemistry. They will also learn that how industrial activities contribute Water and Air Pollution.

**SYLLABUS OUTLINE:**

**1. Introduction:**

History and significance of environmental degradation, impact of the modern life-style on environmental quality, resource depletion, environmental pollution and its types, environmental education, Environmental management systems, institutions for the protection of environment, inter-disc nature of environmental studies, environmental segments and their interrelationships, Environmental quality standards (air, drinking water and wastewater).

**2. Air and Water Environment:**

Composition of atmosphere, temperature and pressure profile of different layers of the atmosphere, common air pollutants and their sources, greenhouse effect and global warming, stratospheric ozone depletion, Importance of water, BOD and COD, sources of water pollution (industrial, agricultural, municipal and natural), primary, secondary and advanced treatment of water.

**RECOMMENDED BOOKS:**

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