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**Syllabus of
Bridge Course in Environmental Science**

**Effective from
Academic year
2013-2014 onwards**

**Implemented in the
Department of Environmental Science
Dr. Babasaheb Ambedkar Marathwada, Aurangabad.**

Chapter I :- Concept of Environment.

Atmosphere : Definition; structure and composition of atmosphere;; composition of air;

Lithosphere: Definition, structure of lithosphere, soil composition, soil profile; physical and chemical properties of soil, soil formation (pedogenesis)- physical, chemical and biological weathering.

Hydrosphere: Definition; structure of water molecule, properties of water, distribution of water on earth, hydrological cycle.

Chapter II :- Ecosystems.

Introduction : Ecology –Definition; scope; ecosystem-concept and structure of ecosystem; function of ecosystem; biotic components of ecosystem (producer, consumer and decomposer); biotic components of e ecosystem.(Wind, Temperature, Soil, Minerals, Nutrients, CO₂,Solar radiation, etc)

Types of Ecosystems:

- a) **Terrestrial ecosystem-** desert ecosystem ; grassland ecosystem; forest ecosystem (evergreen and deciduous) ; mountain ecosystem and marsh land.
- b) **Aquatic ecosystem** – Freshwater ecosystem - 1.Lentic ecosystem- Ponds and Lakes;
2. Lotic ecosystem – rivers and streams.

Chapter III: - Natural Resources.

Forest :- Deforestation ; afforestation ; Social forestry,

Wild resources -Important of wild life, Causes of degradation of wildlife.

National Parks and Sanctuaries (Kanha National Park, Tadoba Wild life Sanctuary, Corbett National Park, Jaikwadi Bird Sanctuary,)

Energy Resource : Fossil Fuels as energy source- types, environmental problems associated with fossil fuels

Wind energy, Solar energy, Biodiesel /Biomass energy, Mineral resources.

Chapter IV :- Environmental Pollution

Air pollution- Sources of Air pollution and effects

Water pollution – Sources of Water pollution and effects

Soil Pollution – Sources of Soil pollution and effects

Noise Pollution- Sources of Noise pollution and effect

Chapter V :- Global issues

Ozone depletion- causes and effects

Global warming-major green house gases, causes and effects;

Acid rain-causes and effects.