ENVIRONMENT AND WATER MANAGEMENT
Semester II (2017-18)

Course Code UGEWM17201-DC **Course Title: Environmental Pollution**
Total Credits: 06 **Max. Marks: 90 (theory=60, Lab. Course=30)**

Credit-I: Water Pollution **15 hours**

1.1. Physical and chemical properties of water
1.2. Surface and ground water pollution: sources and types
1.3. Thermal and marine pollution
1.4. Effect of pollution on water quality and aquatic life
1.5. Concept of Eutrophication

Credit-II: Air and Noise Pollution **15 hours**

2.1.Concept of air pollution and classification of air pollutants
2.2. Sources of air pollution
2.3. Indoor air pollution
2.4. Effect of air pollution on human health, plant life and visibility.
2.5. Noise pollution – sources and impacts

Credit-III: Soil Pollution **15 hours**

3.1. Inorganic and organic components of soil
3.2. Soil pollution: causes and consequences
3.3. Soil Erosion: causes and types
3.4. Factors affecting soil erosion
3.5. Impacts of soil erosion and soil degradation

Credit-IV: Global Environmental Issues **15 hours**

4.1. Stratospheric ozone depletion: causes and consequences
4.2. Photochemical smog and its effects on biosphere.
4.3. Acid precipitation: causes and consequences.
4.4. Climate change: causes and consequences
4.5. International Conventions: Stockholm, Montreal and Kyoto protocol

Laboratory Course

Credit 5 and 6 **Max. Marks: 30**

1. Collection and identification of submerged, floating and emergent types of hydrophytes.
2. Study of aquatic vegetation by quadrat method.
3. Collection and identification of phytoplankton and zooplankton
4. Collection and identification of benthos and periphyton
5. Identification of important commercial fishes of Kashmir.
6. Measurement of the rate of soil erosion in any natural ecosystem.
7. Measurement of the temperature and moisture of a soil from different ecosystems.
8. Determination of the pH and conductivity of soil.
9. Sampling and determination of SO_x, NO_x, SPM and RPM in ambient air.
10. Eco trips to lakes / crops lands / forests for ecological studies.
    (Students are expected to make a brief report of the field study and submit along with the practical record at the time of examination)