

**Course Contents:**

Introduction: Define environmental science as a subject that draws on learning's from natural sciences to investigate human impact on the natural environment. Present concept of hydrosphere, atmosphere, biosphere, and ecosystem. Explain how the scientific method is used to investigate natural phenomena, particularly the interrelationships between organisms and between organisms and their environments; Water: Availability and Pollution. Hydrologic Cycle and Water Bodies, Water Availability and Use, Water Pollution, Water Management; Climate, Weather, and Air Pollution: Explain the components of the atmosphere and the processes that form climate and climate change. Classify sources and types of air pollution; Solid Waste Management: Classify types of solid waste and disposal methods, and explain the associated environmental effects. Analyze the effect of waste and hazardous waste on human health; Environmental Legislation and Policy Development: Examine the need and rationale for environmental legislation; Energy and review of Thermodynamics: Describe energy as a force, the forms of energy, and explain the laws of thermodynamics. Illustrate the principle of conservation of matter; Energy Consumption and Conventional Sources. Summarize data on uses, consumption, and reserves of energy. Fossil fuels

**Presentations by students:**

Suggested Presentation topics:

- Rationale and effectiveness of strategies to increase the availability of water, conserve water, and purification of water.
- Current Global initiatives to manage/ mitigate climate change impacts
- History of environmental legislation in India and the discussion of environmental issues that need development of policy and legislation.
- Strategies, programs, and policies to reduce the amount of waste and to reduce the harmful effects of waste.