



## **CS-14: Environmental Science: Understanding the Earth's Ecosystems and Sustainability**

### **Objective:**

- The primary objective is to introduce students to the fundamental concepts of Environmental Science, including ecosystems, biodiversity, natural resources, pollution, climate change, and sustainability.
- The course aims to raise awareness about pressing environmental challenges faced globally and locally, such as air and water pollution, deforestation, habitat destruction, and climate change.
- Students will become familiar with environmental laws, regulations, and policies at local, national, and international levels, which govern environmental protection and conservation efforts.

### **Prerequisites:**

- A fundamental understanding of basic science subjects.

<b>Unit No.</b>	<b>Topic</b>	<b>Details</b>
1	<b>Introduction to Environment Science</b>	<ul style="list-style-type: none"><li>• Definition</li><li>• Environmental Issues and Challenges</li><li>• Principles and Scope</li><li>• Concepts of Ecology and Ecosystem</li></ul>
2	<b>Environmental Pollution</b>	<ul style="list-style-type: none"><li>• Types of Pollution (air, water, soil, noise, etc.)</li><li>• Sources and impact of pollution</li><li>• Mitigation and control measures</li></ul>
3	<b>Climate Change and Global Warming</b>	<ul style="list-style-type: none"><li>• Greenhouse effect and its implications</li><li>• Causes and consequences of climate change</li><li>• Sustainable practices to combat global warming</li></ul>

### **Course Outcome:**

- Students will demonstrate a solid understanding of environmental concepts.
- Students will develop an increased awareness of pressing environmental issues facing the planet today and recognize the interconnections between human activities and the environment.

### **Reference Books:**

- “Environmental Science” by G. Tyler Miller and Scott Spoolman
- Environmental Impact assessment – L W Canter – McGraw Hill