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.

Unit No.	Topic	Details
1	**Introduction to Environment Science**	• Definition • Environmental Issues and Challenges • Principles and Scope • Concepts of Ecology and Ecosystem
2	**Environmental Pollution**	• Types of Pollution (air, water, soil, noise, etc.) • Sources and impact of pollution • Mitigation and control measures
3	**Climate Change and Global Warming**	• Greenhouse effect and its implications • Causes and consequences of climate change • Sustainable practices to combat global warming

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