

COURSE OUTCOME  
of  
Sustainable Development  
Academic Session : 2023-2024

SEMESTER : II

UNIT 1 : Sustainable Development : Idea and Background

A student might achieve after completing this unit :

CO 1 : Define and explain the triple bottom line concept

CO 2 : Explain the historical context of the Brundtland Report and its significance for sustainable development.

CO 3 : Analyze the impact of industrialization and urbanization on sustainable development.

CO 4 : Evaluate the role of economic growth in achieving sustainable development.

CO 5 : Discuss the importance of central capacities and governance for achieving sustainable development.

CO 6 : Understand the UN Sustainable Development Goals (SDGs) and their relevance for sustainable development.

UNIT 2 : Ecology and Biodiversity

A student might achieve after completing this unit

CO 1 : Define and differentiate between biotic and abiotic components of an ecosystem

CO 2 : Describe the concept of sustainable use of ecosystems.

CO 3 : Explain the terms and concepts related to ecology, such as food chains, food webs, energy flow, ecological niche, habitat, geographical range, and tolerance range.

CO 4 : Identify and describe the major biogeographical regions of the world.

CO 5 : Understand the concept of ecological limits and ecological engineering.

CO 6 : Discuss the levels of environmental awareness and their significance.

CO 7 : Describe the characteristics and importance of major ecosystems, including aquatic (marine), terrestrial (forests with reference to North Bengal), deserts, and grasslands.

### UNIT 3 : Biodiversity Presentation and Sustainable Development Goals

A student might achieve after completing this unit

CO 1 : Explain the causes of biodiversity depletion.

CO 2 : Describe strategies for sustainable use and conservation of biodiversity.

CO 3 : Identify endangered and threatened species and their conservation needs.

CO 4 : Discuss the major biodiversity zones and hotspots of the world.

CO 5 : Explain the concept of biomimetics and its relevance to sustainable development.

CO 6 : Analyze the Sustainable Development Goals (SDGs) in the context of biodiversity loss.

CO 7 : Discuss the role of ecotourism in sustainable development with a focus on North Bengal.

### UNIT 4 : Sustainable Development and Urbanities

A student might achieve after completing this unit

CO 1 : Define and explain the concept of a sustainable city environment.

CO 2 : Discuss the role of gender in sustainable development.

CO 3 : Analyze the evolutionary history of sustainable development ideas.

CO 4 : Understand the importance of education and healthcare for sustainable development.

CO 5 : Compare and contrast the Millennium Development Goals (MDGs) and the Sustainable Development Goals (SDGs).

CO 6 : Evaluate the progress of the SDGs in achieving sustainable development.

CO 7 : Discuss the role of urban planning in achieving sustainable development.

#### UNIT 5 : Pollution and its Impact on Sustainable Development

A student might achieve after completing this unit

CO 1 : Define and explain the different types of pollution (air, water, soil, noise).

CO 2 : Describe the causes and effects of air pollution, including the role of particulate matter.

CO 3 : Explain the concept of green buildings and their role in reducing pollution.

CO 4 : Understand the utility of air pollution control equipment like HEPA and ULPA filters.

CO 5 : Describe the different types of air pollution control technologies.

CO 6 : Discuss the strategies for controlling air pollutants like nitrogen oxides

CO 7 : Explain the concept of desulphurization and its application in pollution control.

#### UNIT 6 : Sustainability and Executions

A student might achieve after completing this unit

CO 1 : Define sustainability and its factors.

CO 2 : Discuss the needs for food security and agriculture in achieving sustainability.

CO 3 : Analyze the role of renewable and non-renewable resources in sustainable development.

CO 4 : Understand the concept of sustainable conflicts and clinical economics.

CO 5 : Explain the role of the Sustainable Development Goal Fund and the Private Sector Advisory Group in sustainable development.

CO 6 : Discuss the importance of public-private partnerships for sustainable development.