

ENVIRONMENTAL STUDIES
(Compulsory Foundation Course)

EVS/IV/FC/07

Course objective: The objective of environmental studies is to develop a world population that is aware of and concerned about the environmental and its associated problems and which has the knowledge, skills, attitudes, motivation and commitments to work individually and collectively towards solution and current problems and prevention.

Course outcomes:

- Understand and evaluate the global scale of environmental problem.
- Reflect critically about their roles and identities as citizen, consumers and environmental actors in a complex, interconnected world.
- Appreciate the ethical, cross-cultural and historical context of environmental issues and the link between humans and natural systems.

UNIT I: INTRODUCTION

- Scope and Importance multidisciplinary nature of environmental studies
- Ecology – concept, types, classification and ecological levels of organization
- Ecosystem – concept, types, classification and components of ecosystem
- Structure and function of an ecosystem

UNIT II: NATURAL RESOURCES

- Introduction, classification of natural resources
- Basics of renewable resources
- Basics of non-renewable resources
- Causes for depletion and conservation measures of natural resources

UNIT III: BIODIVERSITY AND CONSERVATION

- Definition, pattern and levels of biodiversity
- Concept of mega-diversity and hot-spots of biodiversity
- Causes and consequence of biodiversity loss.
- Conservation of biodiversity- *In-situ and Ex-situ*

UNIT IV: ENVIRONMENTAL POLLUTION

- Basic concept and types of environmental pollution
- Sources and causes of environmental pollution (air, water, soil, noise)
- Effects and control of environmental pollution (air, water, soil, noise)
- Climate change – global warming, ozone layer depletion, acid rain and impact on human communities and agriculture

UNIT V: SOCIAL ISSUES, DEVELOPMENT AND THE ENVIRONMENT

- Goals, objectives and guiding principles of environmental education
- Environmental movements- Chipko, Appiko, Silent valley projects
- Role of NGOs in environmental development.
- Concept sustainable development