

ENVIRONMENTAL SCIENCE

Duration: 6 months

Unit I: Ecology and Environment

- a. Biotic and abiotic factors of the environment
- b. Concept of biosphere
- c. Population parameters
- d. Concept of carrying capacity
- e. Biogeochemical cycle: carbon, nitrogen, phosphorus, water, energy flow

Unit II: Energy and Resource Conservation

- a. Renewable and non-renewable sources of energy
- b. Sun as a source of energy
- c. Conservation of resources
- d. Energy use pattern and future needs
- e. Energy conservation policies

Unit III: Environmental pollution

- a. Air pollution: types, sources, effects and management
- b. Water pollution: types, sources, effects and management
- c. Noise pollution: types, sources, effects and management
- d. Thermal pollution: types, sources, effects and management
- e. Solid waste management

Unit IV: Environmental Management

- a. Scope of environmental management
- b. Concept of sustainable development
- c. Environmental impact assessment
- d. ISO: standards related to environmental management
- e. Environmental interference for establishing industries

Practical Exercises:

- Seminar based on project work
- Environmental Diary: Based on observation
- Field survey report: Visits to Sanctuaries/National Parks, Eco-Tourism/ Railway Station