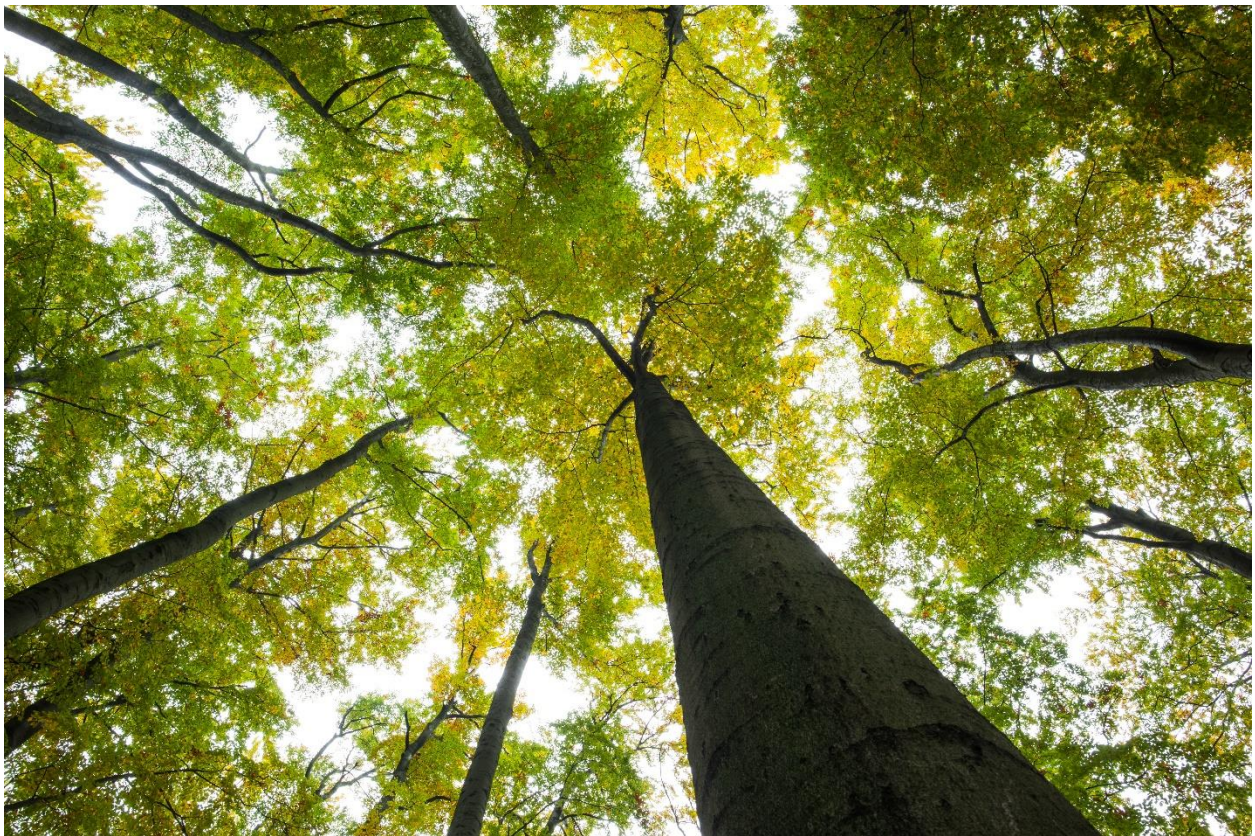




International Diploma
in
Environmental Concerns & Protection



A fascinating and informative Program which explains the importance of the environment and why it needs to be protected. The Program explains the causes of environmental damage and pollution and how to deal with these problems. It also teaches about the environment in connection with sustainability, business, tourism, towns and cities and what mankind builds, and covers laws and responsibilities of people as individuals, in government, and in business and industry

Course Outline

Module 1: The Environment, Ecology & Ecosystem

- Scientific observation and studies; environmental issues to be addressed.
- Population and consumption concerns, energy use, biodiversity, greenhouse gases, global climate change.
- Environmental management and policy; sustainability.
- Ecology: organisms and their interactions with the environment; ecosystems: abiotic and biotic constituents; food chains.

Module 2: Need for Environmental Protection

- Dangers facing mankind and all living beings from: advancements in technology, exploitation of natural resources, destruction of ecosystems, environmental degradation, deforestation.
- Anthropogenic pollution; photosynthesis; algal blooms; greenhouse gases.
- Energy sources & consumption; ecological footprint; carbon footprint.
- Ecological & environmental value of trees.

Module 3: Environmental Pollution

- Pollutants and contaminants; major causes of pollution; physical, chemical, biological; reducing pollution.
- Air pollution, presence of harmful substances in the atmosphere; light pollution; noise pollution.
- Water pollution, toxic chemicals and biological agents; land pollution, destruction and contamination of land.
- Causes and effects of soil erosion; garbage and landfills; sewage, sanitation.

Module 4: Energy and Energy Conservation

- Energy and work; potential energy, kinetic energy; energy conversion; renewable energy sources; electricity generation.
- Solar energy, solar farms, community solar; wind power: wind turbines and windmill farms.
- Hydroelectric energy, dams; geothermal energy; steam, heat pumps; bio energy.
- Ocean energy, wave and tidal energy; hydrogen energy.

Module 5: Environmental Sustainability

- The three pillars of sustainability: environmental, social, economic; aims of environmental sustainability.
- Sustainable development goals; the harm of industrial agriculture.
- Sustainable agriculture, smart farming, sustainable forestry: reforestation and afforestation.
- Sustainable architecture and construction; sustainable waste and water management; sustainable fishing.

Module 6: Climate Change and the Greenhouse Effect

- Climate and weather, relationship and differences, constituents of weather, the troposphere.
- Seasons, world climate types and zones; problems faced due to rapid climate changes.
- Greenhouse gases, atmospheric temperature, the ozone layer, the ozone hole, global warming.
- Climate change adaptation, change adaptation mitigation.

Module 7: Rangeland Protection

- What rangeland is, its importance; need for protection; its uses: pastureland, watersheds, recreation.
- Degradation, overgrazing, damage by human activities, overstocking, desertification.
- Agroecology, agroforestry, sustainable land use management; climate, rainfall, vegetation.
- The Riparian Zone, importance, vegetation; groundwater recharge, porosity, permeability.

Module 8: Extinction of Species and their Conservation

- Species, extinction; rates of extinction; background extinctions; time scales, mass extinctions.
- Catastrophic events; diseases; introduction of predators; competition and climate change.
- Effects of extinctions of species; the ripple effect; habitat fragmentation.
- Conservation biology; keystone species.

Module 9: Businesses and Environmental Protection

- Businesses as creators of wealth, employment, new technology; duties and responsibilities of business leaders.
- Environmental management systems and audits; compliance; environmental issues affecting businesses.
- Strategic and financial implications of “going green”.
- Industrial pollution of air, water, land; major industrial polluters.

Module 10: Tourism and the Environment

- Foreign and domestic tourists; tourist-generating and host countries; why tourism is generally welcomed.
- Positive aspects and negative environmental impacts of tourism.
- Sustainable tourism; sustainable tourism development planning.
- Infrastructure of a country, destination tourism superstructure; government restraints on tourism.

Module 11: The Built Environment

- Interaction between built and natural environments; components of the built environment.
- Natural environmental factors affecting built environments: water, topography and landforms, climate.
- Population density; urbanization: suburban districts, suburbia; urban sprawl.
- Sustainable urban development; smart growth principles, mitigating and adaption to climate change.

Module 12: Environmental Protection & the Global Community

- Treaties and conventions, accords and protocols, resolutions and declarations.
- The Rio ‘Earth Summit’; important international agreements on climate change.
- 20th Century Environmental Agreements; the Kyoto Protocol; the Paris Agreement.
- Principles of environmental law; current trends and prospects.