

Module Title: Engineering, Science and the Environment

Mandatory Module

Content:

- Introduction to ecology
 - Fundamental concepts in ecology: habitat, niche, limiting factors and range of tolerance
 - Flow of energy and nutrients through ecosystems
 - Population dynamics
 - Biodiversity – trends in and value of
 - Introduction to habitats and natural succession
- Human impacts on ecosystems: scientific background to the problems and options for tackling them.
 - Human Population growth and environmental pressures
 - Air Pollution
 - Water pollution and over abstraction
 - Desertification and salination
 - Deforestation
 - Waste (solid, hazardous and organic waste)
 - Biodiversity and habitat loss – the sixth extinction
- Environment and Engineering
 - Calculations in Environmental Engineering
 - Energy, Energy Flows and Balances
 - Introduction to Environmental Standards
 - Introduction to Design for the Environment
 - Product Life Cycle