

PNS SCHOOL OF ENGINEERING AND TECHNOLOGY
DEPARTMENT OF ELECTRICAL ENGINEERING

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| Branch: Electrical, Etc & Comp.Sc Engg. | Semester: 3rd | Name of the Lecturer: Snigdha Dash |
| Subject: ES | Classes Alloted in a Week: 5 | Duration of Semester: 01.08.2023 - 30.11.2023 |
| Week | Class Day | Theory / Practical Topic |
| 1st | 1 | The Multidisciplinary nature of environmental studies: Definition |
| | 2 | The Multidisciplinary nature of environmental studies:Scope |
| | 3 | Importance of the multidisciplinary nature of environment studies |
| | 4 | Need for public awareness |
| | 5 | Natural Resources: Renewable and non renewable resources: |
| 2nd | 1 | Natural resources and associated problems |
| | 2 | Forest resources: Use and over-exploitation, deforestation, case studies, Timber extraction mining, dams and their effects on forests and tribal people |
| | 3 | Water resources: Use and over-utilization of surface and ground water, floods, drought, conflicts over water, dam's benefits and problems. |
| | 4 | Mineral Resources: Use and exploitation, environmental effects of extracting and using mineral resources. |
| | 5 | Food Resources: World food problems, changes caused by agriculture and over grazing, effects of modern agriculture, fertilizers- pesticides problems, water logging, salinity. |
| 3rd | 1 | Energy Resources: Growing energy need, renewable and non-renewable energy sources, use of alternate energy sources, case studies. |
| | 2 | LandResources: Landasaresource, landdegradation, man induces landslides, soil erosion, and desertification |
| | 3 | Role of individual in conservation of natural resources |
| | 4 | Equitable use of resources for sustainable life styles. |
| | 5 | Systems: Concept of an eco system. |
| 4th | 1 | Structure and function of an eco system. |
| | 2 | Producers, consumers, decomposers. |
| | 3 | Energy flow in the eco systems, Ecological succession. |
| | 4 | Ecological succession. |
| | 5 | Food chains, food webs and ecological pyramids. |
| 5th | 1 | Introduction, types, characteristic features, structure and function of the following eco system: Forest ecosystem |
| | 2 | Aquatic eco systems (ponds, streams, lakes, rivers, oceans, estuaries). |
| | 3 | Biodiversity and it's Conservation: Introduction |
| | 4 | Definition: Genetics, species and ecosystem diversity |
| | 5 | Biogeographically classification of India |

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| 6th | 1 | Value of biodiversity: consumptive use, productive use, social ethical, aesthetic and optin values. |
| | 2 | Biodiversity at global level |
| | 3 | Biodiversity at national level |
| | 4 | Biodiversity at local level |
| | 5 | Threats to biodiversity: Habitats loss, poaching of wild life, man wildlife conflicts |
| 7th | 1 | Environmental Pollution: Definition |
| | 2 | Causes, effects and control measures of: Air pollution |
| | 3 | Causes, effects and control measures of: water pollution |
| | 4 | Causes, effects and control measures of: soil pollution |
| | 5 | Causes, effects and control measures of: marine pollution |
| 8th | 1 | Causes, effects and control measures of: noise pollution |
| | 2 | Causes, effects and control measures of: Thermal pollution |
| | 3 | Causes, effects and control measures of: Nuclear hazards |
| | 4 | Solid waste Management: Causes, effects and control measures of urban and industrial wastes. |
| | 5 | Role of an individual in prevention of pollution |
| 9th | 1 | Disaster management: Floods and Earth quake, |
| | 2 | Disaster management: Cyclone and Landslides |
| | 3 | Social issues and the Environment: Form unsustainable to sustainable development. |
| | 4 | Urban problems related to energy. |
| | 5 | Water conservation, rain water harvesting, water shed management. |
| 10th | 1 | Resettlement and rehabilitation of people; its problems and concern |
| | 2 | Environmental ethics: issue and possible solutions |
| | 3 | Climate change, global warming, acid rain, ozone layer depletion |
| | 4 | Nuclear accidents and holocaust, case studies. |
| | 5 | Air (prevention and control of pollution) Act |
| 11th | 1 | Water (prevention and control of pollution) Act. |
| | 2 | Public awareness. |
| | 3 | Human population and the environment: Population growth |
| | 4 | Variation among nations |
| | 5 | Population explosion |
| 12th | 1 | Family welfare program |
| | 2 | Environment and humanhealth. |
| | 3 | Human rights |
| | 4 | Value education |
| | 5 | Role of information technology in environment and human health. |

Signature of the
Lecturer

Signature of the
H.O.D.