



NILASAIL INSTITUTE OF SCIENCE & TECHNOLOGY  
SERGARH-756060, BALASORE (ODISHA)  
(Approved by AICTE & affiliated to SCTE & VT, Odisha)



## LESSON PLAN

**SUBJECT: Th5. ENVIRONMENTAL STUDIES**

### CHAPTERWISE DISTRIBUTION OF PERIODS

| Sl.No. | Name of the chapter as per the Syllabus               | No. of Periods as per the Syllabus | No. of periods actually needed |
|--------|---|------------------------------------|--------------------------------|
| 1      | The Multidisciplinary nature of environmental studies | 4                                  | 2                              |
| 2      | Natural Resources                                     | 10                                 | 14                             |
| 3      | Systems   | 8                                  | 8                              |
| 4      | Biodiversity and its Conservation                     | 8                                  | 8                              |
| 5      | Environmental Pollution                               | 12                                 | 17                             |
| 6      | Social issues and the Environment                     | 10                                 | 17                             |
| 7      | Human population and the environment                  | 8                                  | 9                              |
|        | Total Period:   | 60                                 | 75                             |

| Discipline:<br>ALLBRANCH | Semester:<br>3rd | Name of the Teaching Faculty: Mr. AMLAN NAYAK  |
|--------------------------|------------------|--|
| Week                     | Class Day        | Theory/Practical Topics  |
| 1 <sup>st</sup>          | 1 <sup>st</sup>  | The Multidisciplinary nature of environmental studies: Definition, scope and importance.                 |
|                          | 2 <sup>nd</sup>  | Need for public awareness.   |
|                          | 3 <sup>rd</sup>  | Natural Resources:<br>Renewable and nonrenewable resources   |
|                          | 4 <sup>th</sup>  | Natural resources and associated problems.   |
|                          | 5 <sup>th</sup>  | Forest resources :Use and over-exploitation, deforestation, case studies,                                |
| 2 <sup>nd</sup>          | 1 <sup>st</sup>  | Timber extraction<br>mining,damsandtheireffectsonforestsandtribalpeople                                  |
|                          | 2 <sup>nd</sup>  | Waterresources:Useandover-utilizationofsurface and ground water, floods, drought,                        |
|                          | 3 <sup>rd</sup>  | conflictsoverwater,dam'sbenefitsand problems   |
|                          | 4 <sup>th</sup>  | conflictsoverwater,dam'sbenefitsand problems   |
|                          | 5 <sup>th</sup>  | environmentaleffectsofextractingandusingmineral resources  |
| 3 <sup>rd</sup>          | 1 <sup>st</sup>  | FoodResources:Worldfoodproblems,changes caused by agriculture and over grazing                           |
|                          | 2 <sup>nd</sup>  | effectsofmodernagriculture,fertilizers-pesticidesproblems, waterlogging,salinity,                        |
|                          | 3 <sup>rd</sup>  | Energy Resources: Growing energy need, renewableandnon-renewableenergysources,                           |
|                          | 4 <sup>th</sup>  | useofalternate energy sources,case studies.  |
|                          | 5 <sup>th</sup>  | LandResources:Landasaresource,landdegradation, man induces landslides, soil erosion, and desertification |

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| 4 <sup>th</sup> | 1 <sup>st</sup> | Role of individual in conservation of natural resources. Equitable use of resources for sustainable life styles. |
|                 | 2 <sup>nd</sup> | Systems:<br>Concept of an ecosystem. Structure and function of an ecosystem.                                     |
|                 | 3 <sup>rd</sup> | Producers, consumers, decomposers.   |
|                 | 4 <sup>th</sup> | Ecological succession.   |
|                 | 5 <sup>th</sup> | Food chains, food webs and ecological pyramids.  |
| 5 <sup>th</sup> | 1 <sup>st</sup> | Introduction, types, characteristic features, structure and function of the following eco system                 |
|                 | 2 <sup>nd</sup> | Forest ecosystem:  |
|                 | 3 <sup>rd</sup> | Aquatic ecosystems (ponds, streams, lakes, rivers, oceans)   |
|                 | 4 <sup>th</sup> | Energy flow in the eco systems   |
|                 | 5 <sup>th</sup> | Biodiversity and its Conservation:<br>Introduction-Definition:   |
| 6 <sup>th</sup> | 1 <sup>st</sup> | genetics, species and ecosystem diversity.   |
|                 | 2 <sup>nd</sup> | Biogeographical classification of India.   |
|                 | 3 <sup>rd</sup> | Value of biodiversity: consumptive use, productive use   |
|                 | 4 <sup>th</sup> | social, ethical, aesthetic and option values.  |
|                 | 5 <sup>th</sup> | Biodiversity at global, national and local level.  |

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| 7 <sup>th</sup> | 1 <sup>st</sup> | Threatstobiodiversity:Habitatsloss,poachingofwildlife   |
|                 | 2 <sup>nd</sup> | manwildlifeconflicts.   |
|                 | 3 <sup>rd</sup> | EnvironmentalPollution:<br>DefinitionCauses,effects andcontrolmeasures ofdifferent pollutions |
|                 | 4 <sup>th</sup> | Air pollution.  |
|                 | 5 <sup>th</sup> | Waterpollution  |
| 8 <sup>th</sup> | 1 <sup>st</sup> | Soilpollution   |
|                 | 2 <sup>nd</sup> | Marinepollution   |
|                 | 3 <sup>rd</sup> | Noise pollution.  |
|                 | 4 <sup>th</sup> | Thermal pollution   |
|                 | 5 <sup>th</sup> | Nuclear hazards.  |
| 9 <sup>th</sup> | 1 <sup>st</sup> | SolidwasteManagement:Causes   |
|                 | 2 <sup>nd</sup> | effects   |
|                 | 3 <sup>rd</sup> | controlmeasuresofurbanandindustrial wastes.   |
|                 | 4 <sup>th</sup> | Roleofanindividualinpreventionofpollution   |
|                 | 5 <sup>th</sup> | Disaster management   |

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| 10 <sup>th</sup> | 1 <sup>st</sup> | Floods  |
|                  | 2 <sup>nd</sup> | earth quake                                     |
|                  | 3 <sup>rd</sup> | cyclone   |
|                  | 4 <sup>th</sup> | landslides.                                     |
|                  | 5 <sup>th</sup> | SocialissuesandtheEnvironment                   |
| 11 <sup>th</sup> | 1 <sup>st</sup> | Formunsustainabletosustainabledevelopment.      |
|                  | 2 <sup>nd</sup> | Urbanproblemsrelatedtoenergy.                   |
|                  | 3 <sup>rd</sup> | Water conservation                              |
|                  | 4 <sup>th</sup> | rainwaterharvesting,                            |
|                  | 5 <sup>th</sup> | watershed management.                           |
| 12 <sup>th</sup> | 1 <sup>st</sup> | Resettlementandrehabilitationofpeople           |
|                  | 2 <sup>nd</sup> | itsproblemsand concern.                         |
|                  | 3 <sup>rd</sup> | Environmentalethics:issueandpossible solutions. |
|                  | 4 <sup>th</sup> | Climatechange,                                  |
|                  | 5 <sup>th</sup> | globalwarming,                                  |

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| 13 <sup>th</sup> | 1 <sup>st</sup> | acid rain,   |
|                  | 2 <sup>nd</sup> | ozone layer depletion  |
|                  | 3 <sup>rd</sup> | nuclear accidents and holocaust, case studies                  |
|                  | 4 <sup>th</sup> | Air (prevention and control of pollution) Act                  |
|                  | 5 <sup>th</sup> | Water (prevention and control of pollution) Act                |
| 14 <sup>th</sup> | 1 <sup>st</sup> | Public awareness.  |
|                  | 2 <sup>nd</sup> | Human population and the environment:                          |
|                  | 3 <sup>rd</sup> | Population growth and variation among nations.                 |
|                  | 4 <sup>th</sup> | Population explosion-family welfare program                    |
|                  | 5 <sup>th</sup> | Environment and human health.                                  |
| 15 <sup>th</sup> | 1 <sup>st</sup> | Value education  |
|                  | 2 <sup>nd</sup> | Human rights.  |
|                  | 3 <sup>rd</sup> | Human rights.  |
|                  | 4 <sup>th</sup> | Role of information technology in environment and human health |
|                  | 5 <sup>th</sup> | Role of information technology in environment and human health |