



**GANDHI SCHOOL OF ENGINEERING
BHABANDHA, BERHAMPUR**

SESSION PLAN

**3RD SEMESTER, BRANCH-MECHANICAL(GROUP 1)
ENVIRONMENTAL STUDIES(TH-5)**

Name of the Faculty –ER. LAKSHMI NARAYANA PANDA						
Details to be taken				Actually taken		
SL NO & CHAPTER	No. of Periods	Details of the topics	PLANNIND DATE	Details of the topics	ACTUAL DATE	Remarks
1. The Multidisciplinary nature of environmental studies	4	Definition, scope and importance, Need for public awareness	16/09/2022 TO 21/09/2022	Definition, scope and importance, Need for public awareness	16.09.2022 19.09.2022 20.09.2022 21.09.2022	

<p>2. Natural Resources</p>	<p>10</p>	<p>Renewable and non renewable resources: a) Natural resources and associated problems. ☒ Forest resources: Use and over-exploitation, deforestation, case studies, Timber extraction mining, dams and their effects on forests and tribal people. ☒ Water resources: Use and over-utilization of surface and ground water, floods, drought, conflicts over water, dam’s benefits and problems. ☒ Mineral Resources: Use and exploitation, environmental effects of extracting and using mineral resources. ☒ Food Resources: World food problems, changes caused by agriculture and over grazing, effects of modern agriculture, fertilizers- pesticides problems, water logging, salinity, . ☒ Energy Resources: Growing energy need, renewable and non-renewable energy sources, use of alternate energy sources, case studies. ☒ Land Resources: Land as a resource, land degradation, man induces landslides, soil erosion, and desertification. b) Role of individual in conservation of natural resources. c) Equitable use of resources for sustainable life styles.</p>	<p>23/09/2022 TO 18/10/2022</p>	<p>Renewable and non renewable resources: a) Natural resources and associated problems. ☒ Forest resources: Use and over-exploitation, deforestation, case studies, Timber extraction mining, dams and their effects on forests and tribal people. ☒ Water resources: Use and over-utilization of surface and ground water, floods, drought, conflicts over water, dam’s benefits and problems. ☒ Mineral Resources: Use and exploitation, environmental effects of extracting and using mineral resources. ☒ Food Resources: World food problems, changes caused by agriculture and over grazing, effects of modern agriculture, fertilizers- pesticides problems, water logging, salinity, . ☒ Energy Resources: Growing energy need, renewable and non-renewable energy sources, use of alternate energy sources, case studies. ☒ Land Resources: Land as a resource, land degradation, man induces landslides, soil erosion, and desertification. b) Role of individual in conservation of natural resources. c) Equitable use of resources for sustainable life styles.</p>	<p>23.09.2022 26.09.2022 27.09.2022 28.09.2022 30.09.2022 11.10.2022 12.10.2022 14.10.2022 17.10.2022 18.10.2022</p>	
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<p>3. Systems</p>	<p>8</p>	<p>Concept of an eco system. Structure and function of an eco system. Producers, consumers, decomposers. Energy flow in the eco systems. Ecological succession. Food chains, food webs and ecological pyramids. Introduction, types, characteristic features, structure and function of the following eco system: Forest ecosystem: Aquatic eco systems (ponds, streams, lakes, rivers, oceans, estuaries).</p>	<p>19/10/2022 TO 9/11/2022</p>	<p>Concept of an eco system. Structure and function of an eco system. Producers, consumers, decomposers. Energy flow in the eco systems. Ecological succession. Food chains, food webs and ecological pyramids. Introduction, types, characteristic features, structure and function of the following eco system: Forest ecosystem: Aquatic eco systems (ponds, streams, lakes, rivers, oceans, estuaries).</p>	<p>19.10.2022 21.10.2022 26.10.2022 28.10.2022 1.11.2022 2.11.2022 4.11.2022 9.11.2022</p>	
<p>4. Biodiversity and it's Conservation</p>	<p>8</p>	<p>☐ Introduction-Definition: genetics, species and ecosystem diversity. ☐ Biogeographically classification of India. ☐ Value of biodiversity: consumptive use, productive use, social ethical, aesthetic and optin values. ☐ Biodiversity at global, national and local level. ☐ Threats to biodiversity: Habitats loss, poaching of wild life, man wildlife conflicts.</p>	<p>11/11/2022 TO 25/11/2022</p>	<p>☐ Introduction-Definition: genetics, species and ecosystem diversity. ☐ Biogeographically classification of India. ☐ Value of biodiversity: consumptive use, productive use, social ethical, aesthetic and optin values. ☐ Biodiversity at global, national and local level. ☐ Threats to biodiversity: Habitats loss, poaching of wild life, man wildlife conflicts.</p>	<p>11.11.2022 14.11.2022 15.11.2022 18.11.2022 21.11.2022 22.11.2022 23.11.2022 25.11.2022</p>	

<p>5. Environmental Pollution.</p>	<p>12</p>	<p>Definition Causes, effects and control measures of: a) Air pollution. b) Water pollution. c) Soil pollution d) Marine pollution e) Noise pollution. f) Thermal pollution g) Nuclear hazards. Solid waste Management: Causes, effects and control measures of urban and industrial wastes. Role of an individual in prevention of pollution. Disaster management: Floods, earth quake, cyclone and landslides.</p>	<p>28/11/2022 TO 16/12/2022</p>	<p>Definition Causes, effects and control measures of: a) Air pollution. b) Water pollution. c) Soil pollution d) Marine pollution e) Noise pollution. f) Thermal pollution g) Nuclear hazards. Solid waste Management: Causes, effects and control measures of urban and industrial wastes. Role of an individual in prevention of pollution. Disaster management: Floods, earth quake, cyclone and landslides.</p>	<p>28.11.2022 29.11.2022 30.11.2022 2.12.2022 5.12.2022 6.12.2022 7.12.2022 9.12.2022 12.12.2022 13.12.2022 14.12.2022 16.12.2022</p>	
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<p>6. Social issues and the Environment</p>	<p>10</p>	<ul style="list-style-type: none"> ☒ Form unsustainable to sustainable development. ☒ Urban problems related to energy. ☒ Water conservation, rain water harvesting, water shed management. ☒ Resettlement and rehabilitation of people; its problems nd concern. ☒ Environmental ethics: issue and possible solutions. ☒ Climate change, global warming, acid rain, ozone layer depletion, nuclear accidents and holocaust, case studies. ☒ Air (prevention and control of pollution) Act. ☒ Water (prevention and control of pollution) Act. ☒ Public awareness 	<p>19/12/2022 TO 3/01/2023</p>	<ul style="list-style-type: none"> ☒ Form unsustainable to sustainable development. ☒ Urban problems related to energy. ☒ Water conservation, rain water harvesting, water shed management. ☒ Resettlement and rehabilitation of people; its problems nd concern. ☒ Environmental ethics: issue and possible solutions. ☒ Climate change, global warming, acid rain, ozone layer depletion, nuclear accidents and holocaust, case studies. ☒ Air (prevention and control of pollution) Act. ☒ Water (prevention and control of pollution) Act. ☒ Public awareness 	<p>19.12.2022</p> <p>20.12.2022</p> <p>21.12.2022</p> <p>23.12.2022</p> <p>26.12.2022</p> <p>27.12.2022</p> <p>28.12.2022</p> <p>30.12.2022</p> <p>2.01.2023</p> <p>3.01.2023</p>	
<p>7. Human population and the environment</p>	<p>8</p>	<ul style="list-style-type: none"> ☒ Population growth and variation among nations. ☒ Population explosion- family welfare program. ☒ Environment and human health. ☒ Human rights. ☒ Value education ☒ Role of information technology in environment and human health 	<p>4/01/2023 TO 20/01/2023</p>	<ul style="list-style-type: none"> ☒ Population growth and variation among nations. ☒ Population explosion- family welfare program. ☒ Environment and human health. ☒ Human rights. ☒ Value education ☒ Role of information technology in environment and human health 	<p>4.01.2023</p> <p>6.01.2023</p> <p>9.01.2023</p> <p>10.01.2023</p> <p>11.01.2023</p> <p>13.01.2023</p> <p>16.01.2023</p> <p>18.01.2023</p> <p>20.01.2023</p>	

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BHABANDHA, BERHAMPUR**

SESSION PLAN

**3RD SEMESTER, BRANCH-MECHANICAL(GROUP 2)
ENVIRONMENTAL STUDIES(TH-5)**

Name of the Faculty –ER. RAKESH TRIPATHY						
Details to be taken				Actually taken		
SL NO & CHAPTER	No. of Periods	Details of the topics	PLANNIND DATE	Details of the topics	ACTUAL DATE	Remarks
1. The Multidisciplinary nature of environmental studies	4	Definition, scope and importance, Need for public awareness	15/09/2022 TO 22/09/2022	Definition, scope and importance, Need for public awareness	15.09.2022 19.09.2022 20.09.2022 22.09.2022	

<p>2. Natural Resources</p>	<p>10</p>	<p>Renewable and non renewable resources: a) Natural resources and associated problems. ☒ Forest resources: Use and over-exploitation, deforestation, case studies, Timber extraction mining, dams and their effects on forests and tribal people. ☒ Water resources: Use and over-utilization of surface and ground water, floods, drought, conflicts over water, dam’s benefits and problems. ☒ Mineral Resources: Use and exploitation, environmental effects of extracting and using mineral resources. ☒ Food Resources: World food problems, changes caused by agriculture and over grazing, effects of modern agriculture, fertilizers- pesticides problems, water logging, salinity, . ☒ Energy Resources: Growing energy need, renewable and non-renewable energy sources, use of alternate energy sources, case studies. ☒ Land Resources: Land as a resource, land degradation, man induces landslides, soil erosion, and desertification. b) Role of individual in conservation of natural resources. c) Equitable use of resources for sustainable life styles.</p>	<p>24/09/2022 TO 20/10/2022</p>	<p>Renewable and non renewable resources: a) Natural resources and associated problems. ☒ Forest resources: Use and over-exploitation, deforestation, case studies, Timber extraction mining, dams and their effects on forests and tribal people. ☒ Water resources: Use and over-utilization of surface and ground water, floods, drought, conflicts over water, dam’s benefits and problems. ☒ Mineral Resources: Use and exploitation, environmental effects of extracting and using mineral resources. ☒ Food Resources: World food problems, changes caused by agriculture and over grazing, effects of modern agriculture, fertilizers- pesticides problems, water logging, salinity, . ☒ Energy Resources: Growing energy need, renewable and non-renewable energy sources, use of alternate energy sources, case studies. ☒ Land Resources: Land as a resource, land degradation, man induces landslides, soil erosion, and desertification. b) Role of individual in conservation of natural resources. c) Equitable use of resources for sustainable life styles.</p>	<p>24.09.2022 26.09.2022 27.09.2022 29.09.2022 11.10.2022 13.10.2022 15.10.2022 17.10.2022 18.10.2022 20.10.2022</p>	
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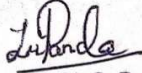
<p>3. Systems</p>	<p>8</p>	<p>Concept of an eco system. Structure and function of an eco system. Producers, consumers, decomposers. Energy flow in the eco systems. Ecological succession. Food chains, food webs and ecological pyramids. Introduction, types, characteristic features, structure and function of the following eco system: Forest ecosystem: Aquatic eco systems (ponds, streams, lakes, rivers, oceans, estuaries).</p>	<p>22/10/2022 TO 10/11/2022</p>	<p>Concept of an eco system. Structure and function of an eco system. Producers, consumers, decomposers. Energy flow in the eco systems. Ecological succession. Food chains, food webs and ecological pyramids. Introduction, types, characteristic features, structure and function of the following eco system: Forest ecosystem: Aquatic eco systems (ponds, streams, lakes, rivers, oceans, estuaries).</p>	<p>22.10.2022 27.10.2022 29.10.2022 1.11.2022 3.11.2022 5.11.2022 8.11.2022 10.11.2022</p>	
<p>4. Biodiversity and it's Conservation</p>	<p>8</p>	<p>☒ Introduction-Definition: genetics, species and ecosystem diversity. ☒ Biogeographically classification of India. ☒ Value of biodiversity: consumptive use, productive use, social ethical, aesthetic and optin values. ☒ Biodiversity at global, national and local level. ☒ Threats to biodiversity: Habitats loss, poaching of wild life, man wildlife conflicts.</p>	<p>12/11/2022 TO 24/11/2022</p>	<p>☒ Introduction-Definition: genetics, species and ecosystem diversity. ☒ Biogeographically classification of India. ☒ Value of biodiversity: consumptive use, productive use, social ethical, aesthetic and optin values. ☒ Biodiversity at global, national and local level. ☒ Threats to biodiversity: Habitats loss, poaching of wild life, man wildlife conflicts.</p>	<p>12.11.2022 14.11.2022 15.11.2022 17.11.2022 19.11.2022 21.11.2022 22.11.2022 24.11.2022</p>	

<p>5. Environmental Pollution.</p>	<p>12</p>	<p>Definition Causes, effects and control measures of: a) Air pollution. b) Water pollution. c) Soil pollution d) Marine pollution e) Noise pollution. f) Thermal pollution g) Nuclear hazards. Solid waste Management: Causes, effects and control measures of urban and industrial wastes. Role of an individual in prevention of pollution. Disaster management: Floods, earth quake, cyclone and landslides.</p>	<p>26/11/2022 TO 17/12/2022</p>	<p>Definition Causes, effects and control measures of: a) Air pollution. b) Water pollution. c) Soil pollution d) Marine pollution e) Noise pollution. f) Thermal pollution g) Nuclear hazards. Solid waste Management: Causes, effects and control measures of urban and industrial wastes. Role of an individual in prevention of pollution. Disaster management: Floods, earth quake, cyclone and landslides.</p>	<p>26.11.2022 28.11.2022 29.11.2022 3.12.2022 5.12.2022 6.12.2022 8.12.2022 10.12.2022 12.12.2022 13.12.2022 15.12.2022 17.12.2022</p>	
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<p>6. Social issues and the Environment</p>	<p>10</p>	<ul style="list-style-type: none"> ☒ Form unsustainable to sustainable development. ☒ Urban problems related to energy. ☒ Water conservation, rain water harvesting, water shed management. ☒ Resettlement and rehabilitation of people; its problems nd concern. ☒ Environmental ethics: issue and possible solutions. ☒ Climate change, global warming, acid rain, ozone layer depletion, nuclear accidents and holocaust, case studies. ☒ Air (prevention and control of pollution) Act. ☒ Water (prevention and control of pollution) Act. ☒ Public awareness 	<p>19/12/2022 TO 3/01/2023</p>	<ul style="list-style-type: none"> ☒ Form unsustainable to sustainable development. ☒ Urban problems related to energy. ☒ Water conservation, rain water harvesting, water shed management. ☒ Resettlement and rehabilitation of people; its problems nd concern. ☒ Environmental ethics: issue and possible solutions. ☒ Climate change, global warming, acid rain, ozone layer depletion, nuclear accidents and holocaust, case studies. ☒ Air (prevention and control of pollution) Act. ☒ Water (prevention and control of pollution) Act. ☒ Public awareness 	<p>19.12.2022</p> <p>20.12.2022</p> <p>22.12.2022</p> <p>24.12.2022</p> <p>26.12.2022</p> <p>27.12.2022</p> <p>29.12.2022</p> <p>31.12.2022</p> <p>2.01.2023</p> <p>3.01.2023</p>	
<p>7. Human population and the environment</p>	<p>8</p>	<ul style="list-style-type: none"> ☒ Population growth and variation among nations. ☒ Population explosion- family welfare program. ☒ Environment and human health. ☒ Human rights. ☒ Value education ☒ Role of information technology in environment and human health 	<p>5/01/2023 TO 21/01/2023</p>	<ul style="list-style-type: none"> ☒ Population growth and variation among nations. ☒ Population explosion- family welfare program. ☒ Environment and human health. ☒ Human rights. ☒ Value education ☒ Role of information technology in environment and human health 	<p>5.01.2023</p> <p>7.01.2023</p> <p>9.01.2023</p> <p>10.01.2023</p> <p>12.01.2023</p> <p>16.01.2023</p> <p>17.01.2023</p> <p>19.01.2023</p> <p>21.01.2023</p>	

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