GANDHI SCHOOL OF ENGINEERING
BHABANDHA, BERHAMPUR
SESSION PLAN
3RD SEMESTER, BRANCH-MECHANICAL(GROUP 1)

ENVIRONMENTAL STUDIES(TH-5)

Name of the Faculty –PROF. 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	**1.08.2023 TO 7.08.2023**	Definition, scope and importance, Need for public awareness	**1.08.2023 2.08.2023 4.08.2023 7.08.2023**	

2. Natural Resources	**10**	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.	**8.08.2023 TO 25.08.2023**	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.	**8.08.2023** **9.08.2023** **11.08.2023** **14.08.2023** **16.08.2023** **18.08.2023** **21.08.2023** **22.08.2023** **23.08.2023** **25.08.2023**	

3. Systems	**8**	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).	**28.08.2023 TO 13.09.2023**	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).	**28.08.2023** **29.08.2023** **1.09.2023** **4.09.2023** **8.09.2023** **11.09.2023** **12.09.2023** **13.09.2023**	
4. Biodiversity and it's Conservation	**8**	▯ 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.	**15.09.2023 TO 3.10.2023**	▯ 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.	**15.09.2023** **18.09.2023** **22.09.2023** **25.09.2023** **26.09.2023** **27.09.2023** **29.09.2023** **3.10.2023**	

5. Environmental Pollution.	**12**	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.	**4.10.2023** **TO** **3.11.2023**	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.	**4.10.2023** **6.10.2023** **9.10.2023** **10.10.2023** **11.10.2023** **13.10.2023** **16.10.2023** **17.10.2023** **18.10.2023** **31.10.2023** **1.11.2023** **3.11.2023**	

6. Social issues and the Environment	**10**	⍰ 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	**6.11.2023 TO 24.11.2023**	⍰ 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	**6.11.2023** **7.11.2023** **8.11.2023** **10.11.2023** **15.11.2023** **17.11.2023** **20.11.2023** **21.11.2023**	
7. Human population and the environment	**8**	⍰ 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	**28.11.2023 TO 8.12.2023**	⍰ 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	**28.11.2023** **29.11.2023** **1.12.2023** **4.12.2023** **6.12.2023** **8.12.2023**	

L.Panda

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H.O.D

Mechanical Engineering

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SESSION PLAN
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ENVIRONMENTAL STUDIES(TH-5)

Name of the Faculty – YAGNYASENI 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
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