

TH 5

GOVERNMENT POLYTECHNIC DHENKANAL

SUB : ENVIRONMENTAL STUDIES ( TH-5 )

LESSON PLAN FOR ACADEMIC SESSION 2024-25

Discipline : Mechanical Engineering	Semester : 3RD	Name of the faculty : Abinash Mishra
Subject : Environmental Studies ( TH – 5 )	No. of days /per week class allotted: 4 p / w	Academic Session – 2024-25
WEEK	PERIOD	TOPIC
1 <sup>st</sup>	1 <sup>st</sup>	Unit 1 : Introduction about Environmental studies.
	2 <sup>nd</sup>	Definition and scope of environment.
	3 <sup>rd</sup>	Importance of Environment.
	4 <sup>th</sup>	Need of public awareness.
2 <sup>nd</sup>	1 <sup>st</sup>	Unit 2 : Introduction of forest resources .
	2 <sup>nd</sup>	Use and exploitation of forest.
	3 <sup>rd</sup>	Deforestation ,timing, extracting ,mining.
	4 <sup>th</sup>	Dams and their effects on forest.
3 <sup>rd</sup>	1 <sup>st</sup>	Water resources ,uses and over utilization.
	2 <sup>nd</sup>	Surface and ground water resources.
	3 <sup>rd</sup>	Various conflict of water ,mineral resources.
	4 <sup>th</sup>	Food resources ,world food problem.
4 <sup>th</sup>	1 <sup>st</sup>	Energy resources, growing energy needs.
	2 <sup>nd</sup>	Renewable and non-renewable resources.
	3 <sup>rd</sup>	Land resources ,land degradation.
	4 <sup>th</sup>	Role of an individual in conservation of natural resources.
5 <sup>th</sup>	1 <sup>st</sup>	Equitable use of resources for sustainable lifestyle.
	2 <sup>nd</sup>	Unit 3 : Concept of ecosystem Structure, function of ecosystem.

	3 <sup>rd</sup>	Producers , consumers , decomposers.
	4 <sup>th</sup>	Energy flow in the ecosystem.
6 <sup>th</sup>	1 <sup>st</sup>	Ecological succession.
	2 <sup>nd</sup>	Food chain , food-web and ecological pyramid..
	3 <sup>rd</sup>	Various ecosystem with their definition.
	4 <sup>th</sup>	Forest ecosystem.
7 <sup>th</sup>	1 <sup>st</sup>	Different types ecosystem.
	2 <sup>nd</sup>	Aquatic system (pond, stream, estuaries lake).
	3 <sup>rd</sup>	Unit Test.
	4 <sup>th</sup>	Unit 4 : Introduction, definition : genetics, species , and ecosystem diversity.
	1 <sup>st</sup>	Biographically classification of India.
8 <sup>th</sup>	2 <sup>nd</sup>	Value of biodiversity consumptive use.
	3 <sup>rd</sup>	Productive use , social ethical aesthetic and opt in values.
	4 <sup>th</sup>	Biodiversity at global national and local level.
	1 <sup>st</sup>	Threats to biodiversity : Habitats loss.
9 <sup>th</sup>	2 <sup>nd</sup>	Threats to biodiversity : poaching of wildlife , man wildlife conflicts.
	3 <sup>rd</sup>	Unit 5 : Environmental pollution.
	4 <sup>th</sup>	Reasons of air pollution.
10 <sup>th</sup>	1st	Air Pollution , Water pollution.
	2 <sup>nd</sup>	Causes of water pollution.
	3 <sup>rd</sup>	Control of water pollution.
	4 <sup>th</sup>	Soil pollution and definition with reason.
11 <sup>th</sup>	1 <sup>st</sup>	Marine pollution with different reason.
	2 <sup>nd</sup>	Noise pollution and its effect.
	3 <sup>rd</sup>	Thermal pollution.

	4 <sup>th</sup>	Nuclear pollution details and remedies.
12 <sup>th</sup>	1 <sup>st</sup>	Role of individual in prevention of population.
	2 <sup>nd</sup>	Disaster management and earthquakes.
	3 <sup>rd</sup>	Unit 6 : Social issue and environment and urban problems.
	4 <sup>th</sup>	Water conservation.
13 <sup>th</sup>	1 <sup>st</sup>	Rain water harvesting.
	2 <sup>nd</sup>	Environmental ethics climate change.
	3 <sup>rd</sup>	Acid rain, ozone layer depletion.
	4 <sup>th</sup>	Water prevention act. Air prevention act. Different public awareness.
14 <sup>th</sup>	1 <sup>st</sup>	Unit 7 : Human Population.
	2 <sup>nd</sup>	Human population and their environment.
	3 <sup>rd</sup>	Population growth and variation among nation.
	4 <sup>th</sup>	Population explosion family welfare program.
15 <sup>th</sup>	1 <sup>st</sup>	Environment and human health.
	2 <sup>nd</sup>	Human rights, Role of information technology in environment
	3 <sup>rd</sup>	Value education.
	4 <sup>th</sup>	Role of information technology in human health.

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16/8/24  
TEACHING FACULTY

*JAM*  
H.O.D. MECHANICAL