

Discipline: <b>MECHANICAL</b>	Semester: <b>3rd</b>	Name of the Teaching Faculty: <u>Sumanta Biswal</u> <b>GF: Mechanical</b>
Subject: <b>EVS</b>	No. of days/per week class allotted: <b>4</b>	Semester From date: To date: <b>15.9.22</b> No of weeks: <b>15</b>
<b>Week</b>	<b>Class Day</b>	<b>Theory Topics:</b>
<b>1<sup>st</sup></b>	<b>1<sup>st</sup></b>	Introduction to EVS, Definition
	<b>2<sup>nd</sup></b>	scope & it's Importance
	<b>3<sup>rd</sup></b>	Need for public awareness
	<b>4<sup>th</sup></b>	a) Natural resources and associated problems
<b>2<sup>nd</sup></b>	<b>1<sup>st</sup></b>	Forest resources: Use and over-exploitation, deforestation, case studies
	<b>2<sup>nd</sup></b>	Timber extraction mining, dams and their effects on forests and tribal people.
	<b>3<sup>rd</sup></b>	Water resources: Use and over-utilization of surface and ground water.
	<b>4<sup>th</sup></b>	Floods, Drought, conflicts over water, dam's benefits and problems.
<b>3<sup>rd</sup></b>	<b>1<sup>st</sup></b>	Mineral Resources: Use and exploitation, environmental effects of extracting and using mineral resources.
	<b>2<sup>nd</sup></b>	Food Resources: World food problems ,changes caused by agriculture and overgrazing.
	<b>3<sup>rd</sup></b>	Effects of modern agriculture, fertilizers pesticides problems, water logging, salinity.
	<b>4<sup>th</sup></b>	Energy Resources: Growing energy need, renewable and non renewable energy sources, use of alternate energy sources, case studies
<b>4<sup>th</sup></b>	<b>1<sup>st</sup></b>	Land Resources: Land as a resource ,land degradation ,man induces landslides, soil erosion, and desertification
	<b>2<sup>nd</sup></b>	b) Role of individual in conservation of natural resources. c) Equitable use of resources for sustainable lifestyles.
	<b>3<sup>rd</sup></b>	Concept of an ecosystem. Structure and function of an ecosystem.
	<b>4<sup>th</sup></b>	Producers, consumers, decomposers.
<b>5<sup>th</sup></b>	<b>1<sup>st</sup></b>	Energy flow in the ecosystems.
	<b>2<sup>nd</sup></b>	Ecological succession
	<b>3<sup>rd</sup></b>	Food chains, food web sand ecological pyramids.
	<b>4<sup>th</sup></b>	Introduction, types, characteristic features, structure and function of the following ecosystem

  
HOD. Mech

Sumanta Biswal (PTMF)

6th	1st	Forest ecosystem
	2nd	Aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estuaries).
	3rd	Introduction: Definition: genetics, species and ecosystem diversity.
	4th	Biogeographically classification of India
7th	1st	Value of biodiversity: consumptive use, productive use, social ethical, aesthetic and opt in values.
	2nd	
	3rd	Biodiversity at global, national and local level.
	4th	Threats to biodiversity: Habitats loss, poaching of wild life, man wildlife conflicts.
8th	1st	
	2nd	Definition Causes, effects and control measures
	3rd	Air pollution.
	4th	Water pollution.
9th	1st	Soil pollution
	2nd	Marine pollution
	3rd	Noise pollution
	4th	Thermal pollution
10th	1st	Nuclear hazards
	2nd	Solid waste Management: Causes, effects and control measures of urban and industrial wastes.
	3rd	Role of an individual in prevention of pollution.
	4th	Disaster management: Floods, earth quake, cyclone and landslides

HOD, week

11th	1st	From unsustainable to sustainable development.
	2nd	Urban problems related to energy.
	3rd	Water conservation, rain water harvesting, water shed management.
	4th	Water conservation, rain water harvesting, water shed management, Resettlement and rehabilitation of people: its problems and concern.
12th	1st	Environmental ethics: issue and possible solutions.
	2nd	Climate change, global warming, acid rain, ozone layer depletion, nuclear accidents and holocaust, case studies.
	3rd	Air (prevention and control of pollution) Act.
	4th	Water (prevention and control of pollution) Act.
13th	1st	Public awareness.
	2nd	Population growth and variation among nations.
	3rd	Population explosion-family welfare program.
	4th	Environment and human health.
14th	1st	Human rights.
	2nd	Value education
	3rd	Role of information technology in environment and human health.
	4th	Revision
15th	1st	Revision
	2nd	Discussion of PYQ
	3rd	Discussion of PYQ
	4th	Discussion of PYQ

HOD, week

Sumanto Bhowmik (RTK)