

# Satyug Darshan Institute of Engineering and Technology

## Lesson Plan / Teaching Plan / Lecture Plan with Progress: BCA –3rd Semester : 2025-26

Course Name (Code): EVS II (VAC-201-V)

Faculty Name-Dr Mansi Rastogi

| Topics / lectures are arranged in sequence - same - as to be taught in the class. Maintain data related to "Date" in its hard copy |            |                                                                                                                                                                                                                      |                   |                    |                 |
|------------------------------------------------------------------------------------------------------------------------------------|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|--------------------|-----------------|
| S. No                                                                                                                              | Lecture No | Topic Description                                                                                                                                                                                                    | Teaching Pedagogy | Reference Material | Remarks, if any |
| 1                                                                                                                                  | 1          | Understanding pollution: Production processes and generation of wastes; Assimilative capacity of the environment; Definition of pollution; Point sources and non-point sources of pollution                          | Board             | T1,T3              |                 |
| 2                                                                                                                                  | 2          | Air pollution: Sources of air pollution; Primary and secondary pollutants; Criteria pollutants-carbon monoxide, lead, nitrogen oxides, ground-level ozone, particulate matter, and sulphur dioxide                   | Board             | T1,T3              |                 |
| 3                                                                                                                                  | 3          | Other important air pollutants- Volatile Organic compounds (VOCs), Peroxyacetyl Nitrate (PAN), Polycyclic aromatic hydrocarbons (PAHs) and Persistent organic pollutants (POPs);                                     | Board             | T1,T3              |                 |
| 4                                                                                                                                  | 4          | Indoor air pollution; Adverse health impacts of air pollutants; National Ambient Air Quality Standards Water quality parameters and standards; adverse health impacts of water pollution on human and aquatic life.. | Board             | T1,T3              |                 |
| 5                                                                                                                                  | 5          | Soil pollution and solid waste: Soil pollutants and their sources; Solid and hazardous waste; Impact on human health.                                                                                                | Board             | T1,T3              |                 |
| 6                                                                                                                                  | 6          | Noise pollution: Definition of noise; Unit of measurement of noise pollution; Sources of noise pollution; Noise standards; adverse impacts of noise on human health.                                                 | Board             | T1,T3              |                 |
| 7                                                                                                                                  | 7          | Thermal pollution: Sources and impact on human health and ecosystems, Radioactive pollution: Sources and impact on human health and ecosystems                                                                       | Board             | T1,T3              |                 |
| 8                                                                                                                                  | 8          | Revision Unit 1                                                                                                                                                                                                      |                   |                    |                 |
| 9                                                                                                                                  | 9          | Understanding climate change: Natural variations in climate; Structure of atmosphere Anthropogenic climate change from greenhouse gas emissions– past, present and future                                            | Board             | T2                 |                 |
| 10                                                                                                                                 | 10         | Projections of global climate change with special reference to temperature, rainfall, climate variability and extreme events; Importance of 1.5 °C and 2.0 °C limits to global warming;                              | Board+PPT         | T2                 |                 |
| 11                                                                                                                                 | 11         | Climate change projections for the Indian sub-continent. Impacts, vulnerability and adaptation to climate change: Observed impacts of climate change on ocean and land systems;                                      | Board+PPT         | T2                 |                 |
| 12                                                                                                                                 | 12         | Sea level rise, changes in marine and coastal ecosystems; changes in marine and coastal ecosystems; Impacts on forests and natural ecosystems; Impacts on animal species, agriculture, health, urban infrastructure  | Board             | T2                 |                 |
| 13                                                                                                                                 | 13         | The concept of vulnerability and its assessment; Adaptation vs. resilience; Climate-resilient development;                                                                                                           | Board             | T2                 |                 |
| 14                                                                                                                                 | 14         | Indigenous knowledge for adaptation to climate change. Mitigation of climate change                                                                                                                                  | Board             | T2                 |                 |
| 15                                                                                                                                 | 15         | Synergies between adaptation and mitigation measures; Green House Gas (GHG) reduction vs. sink enhancement;                                                                                                          | Board+PPT         | T2                 |                 |
| 16                                                                                                                                 | 16         | Concept of carbon intensity, energy intensity, and carbon neutrality; Energy efficiency measures;                                                                                                                    | Board             | T2                 |                 |
| 17                                                                                                                                 | 17         | Renewable energy sources; Carbon capture and storage, National climate action plan and Intended Nationally Determined Contributions (INDCs); Climate justice                                                         | Board             | T2                 |                 |
| 18                                                                                                                                 | 18         | Revision Unit 2                                                                                                                                                                                                      |                   |                    |                 |
| 19                                                                                                                                 | 19         | Introduction to environmental laws and regulation: Constitutional provisions- Article 48A, Article 51A (g) and other derived environmental rights.                                                                   | Board             | T1,T2              |                 |
| 20                                                                                                                                 | 20         | The Forest (Conservation) Act, 1980; The Air (Prevention and Control of Pollution) Act, 1981;                                                                                                                        | Board             | T1,T2              |                 |
| 21                                                                                                                                 | 21         | Environmental legislations in India: The Wild Life (Protection) Act, 1972; The Water (Prevention and Control of Pollution) Act, 1974;                                                                                | Board             | T1,T2              |                 |
| 22                                                                                                                                 | 22         | The Environment (Protection) Act, 1986; The Biological Diversity Act, 2002; The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006;                                     | Board             | T1,T2              |                 |
| 23                                                                                                                                 | 23         | Noise Pollution (Regulation and Control) Rules, 2000; Industry-specific environmental standards;                                                                                                                     | Board             | T1,T2              |                 |
| 24                                                                                                                                 | 24         | Waste management rules. Environmental management system: ISO 14001, Concept of Circular Economy,                                                                                                                     | Board             | T1,T2              |                 |
| 25                                                                                                                                 | 25         | Life cycle analysis; Cost-benefit analysis, Environmental audit and impact assessment;                                                                                                                               | Board             | T1,T2              |                 |
| 26                                                                                                                                 | 26         | Environmental risk assessment, Pollution control and management; Waste Management                                                                                                                                    | Board             | T1,T2              |                 |

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| 27 | 27 | Concept of 3R (Reduce, Recycle and Reuse) and sustainability; Ecolabeling Eco mark scheme                                                                                                          | Board | T1,T2 |  |
| 28 | 28 | Revision Unit 3                                                                                                                                                                                    |       |       |  |
| 29 | 29 | An overview of the following national and international cooperation, agreements, conventions, protocols - adoption, signature, ratification and entry into force; binding and nonbinding measures; | Board | T2    |  |
| 30 | 30 | Conference of the Parties (COP): A) Vienna Convention for the Protection of the Ozone Layer; Montreal Protocol on Substances that Deplete the Ozone Layer                                          | Board | T2    |  |
| 31 | 31 | The Kigali Amendment; Status phase-out of production and consumption of Ozone Depleting Substances by India.                                                                                       | Board | T2    |  |
| 32 | 32 | B) Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal;                                                                                              | Board | T2    |  |
| 33 | 33 | Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade; Stockholm Convention on Persistent Organic Pollutants;         | Board | T2    |  |
| 34 | 34 | Minamata Convention United Nations Framework Convention on Climate Change (UNFCCC); Kyoto Protocol                                                                                                 | Board | T2    |  |
| 35 | 35 | Paris Agreement; India's status as a party to major conventions. D) National Green Tribunal; Some landmark Supreme Court judgements                                                                | Board | T2    |  |
| 36 | 36 | Major International organisations and initiatives: United Nations Environment Programme (UNEP), International Union for Conservation of Nature (IUCN),                                             | Board | T2    |  |
| 37 | 37 | World Commission on Environment and Development (WCED), United Nations Educational, Scientific and Cultural Organization (UNESCO),                                                                 | Board | T2    |  |
| 38 | 38 | Intergovernmental Panel on Climate Change (IPCC), and Man and the Biosphere (MAB) programme.                                                                                                       | Board | T2    |  |
| 39 | 39 | Major International organisations and initiatives: United Nations Environment Programme (UNEP),                                                                                                    | Board | T2    |  |
| 40 | 40 | International Union for Conservation of Nature (IUCN), World Commission on Environment and Development                                                                                             | Board | T2    |  |
| 41 | 41 | Revision Unit 4                                                                                                                                                                                    |       |       |  |

#### Study Material / Books / Web-resources / Online Courses Links etc.

| S. No. | Description                                                                                                          |
|--------|----------------------------------------------------------------------------------------------------------------------|
| 1      | Ahluwalia, V. K. (2015). Environmental Pollution, and Health. The Energy and Resources Institute (TERI).             |
| 2      | Barnett, J. & S. O'Neill (2010). Maladaptation. Global Environmental Change—Human and Policy Dimensions 20: 211–213. |
| 3      | Perspectives in Environmental Studies, Book by Anubha Kaushik and C.P. Kaushik                                       |