

Detailed Teaching Plan

Lecture No.	Unit No	Topics to be covered	Planned Date	Execution Date	Remark
1	1	Definition of Green building, benefits of green building, components/features of green building.			
2		Energy Efficiency, Energy benchmark, Water efficiency, rain water use, grey water use			
3		Material Efficiency, Indoor Air Quality, tempreture, visual comfort, acoustics			
4		Site selection strategies- Landscaping, building form, orientation, building envelope			
5		fenestration, Materials, land use and consumption.			
6		Construction Techniques- roofs, walls, fenestration and shaded finishes			
7		Construction Techniques- fenestration and shaded finishes			
8		Advanced passive heating and cooling techniques			
9		waste reduction during construction			
10	2	Energy Audit: Meaning, Necessity, Procedures			
11		Energy Audit : Types, Energy Management Programs			
12		Types of energy audit			
13		Types of energy audit CONT...			
14		selection of suitable energy audit			
15		Environmental Impact Assessment (EIA): Introduction, EIA regulations,			
16		Steps in environmental impact assessment process			

17	Benefits of EIA			
18	Environmental clearance for the civil engineering projects			
19	3	Renewable Energy Resources: Solar Energy, Wind Energy,		
20		Ocean Energy, Hydro Energy,		
21		Biomass Energy		
22		Non-renewable Energy Resources: Coal, Petroleum, Hydrogen,		
23		Nuclear Energy,		
24		Chemical Sources of Energy		
25		Natural Gas, Fuel Cells, Biofuels.		
26		Energy conservation: Introduction, Specific objectives		
27		present scenario, Need of energy Conservation.		
28		3.4 Indoor climate control system		
29	4	Introduction: Definition of Green building, Benefits of Green building.		
30		Principles: Principles and planning of Green building.		
31		Construction Features: Salient features of Green building, building envelop		
32		heat insulation, solar protection,		
33		glare protection, noise protection		
34		Materials: Green building materials and products – Bamboo, Rice husk ash		
35		concrete, plastic bricks, Bagasse particle board		
36		insulated concrete forms, smart materials.		
37		Facade construction quality management		
38		use of natural resources		

39	5	Ratings system for sustainable building : Indian Green Building Council (IGBC) rating			
40		US Green Building Council (LEED) criteria			
41		Green Rating for Integrated Habitat Assessment (GRIHA) criteria			
42		key aspect in assessment and levels of certification.			
43		Heating Ventilation Air Conditioning (HVAC) unit in green building			
44		Heating Ventilation Air Conditioning (HVAC) unit in green building CONT...			
45		Heating Ventilation Air Conditioning (HVAC) unit in green building			
46		Functions of Government organization working for Energy conservation and Audit (ECA)- National Productivity council (NPC),			
47		Ministry of New and Renewable Energy (MNRE),			
48		Bureau of Energy efficiency (BEE)			