

BHUBANANANDA ODISHA SCHOOL OF ENGINEERING, CUTTACK
DEPARTMENT OF CIVIL ENGINEERING
LESSON PLAN



LESSONPLAN

SUBJECT:ADVANCE CONSTRUCTION TECHNIQUES & EQUIPMENT (TH3)	ACADEMICSESSION:2022-23
FACULTY: SWAVI SHRABANI DAS	SEMESTER:6 TH
	SEC -A

Sd/-
HOD(CivilEngineering.)

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Discipline: Civil Engineering	Semester: 6th(A)		Name of the teaching faculty: Swavi Shrabani Das
Subject: ACTE	No. of Days/ per week class allotted: 04periods per week. (Tue-1, Wed-1, Thu-1, Fri-1period)		Semester From Date: 14-02-2023 To Date: 23-05-2023 No. of weeks: 15 weeks
Week	Class Day	No of period available	Theory Topics
1st	<u>14/02/23</u>	1	1 Advanced construction Materials 1.1 Fibers and plastic:-Types of fibers-steel,carbon, glass fibers as construction materials, properties of fibers
	<u>15/02/23</u>	1	1.1 Types of plastics-PVC,RPVC,HDPE,FRP,GRP,etc.Colored plastic sheets.Use of plastic as construction material
	<u>16/02/23</u>	1	1.2 Artificial Timber-Properties and uses of artificial timber.Types of artificial timber available in market, strength of artificial timber.
	<u>17/02/23</u>	1	1.3 Miscellaneous materials-Properties and uses of acoustics materials,wall cladding
2nd	<u>21/02/23</u>	1	1.3 plaster boards,micro-silica,artificialsand,bondingagents,adhesives etc. 2 Prefabrication
	<u>22/02/23</u>	1	2.1 Introduction,necessity and scope of prefabrication
	<u>23/02/23</u>	1	2.1 History of prefabrication,current uses of prefabrication,types of prefabricated systems
	<u>24/02/23</u>	1	Monthly Class Test -1
3rd	<u>28/02/23</u>	1	2.1 Classification of prefabrication,advantages and disadvantages of prefabrication
	<u>1/03/23</u>	1	2.2 The theory and process of prefabrication
	<u>2/03/23</u>	1	2.2 Design principle of prefabricated systems,types of prefabricated elements
	<u>3/03/23</u>	1	2.2 modular coordination 2.3 Indian standard recommendation for modular planning
4th		1	3 Earthquake Resistant Construction

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	<u>9/03/23</u>		3.1 Building configuration
		1	3.2 Lateral load resisting structures 3 Building characteristics
	<u>10/03/23</u>	1	3.3 Building characteristics
5th	<u>14/03/23</u>	1	3.4 Effect of structural irregularities-vertical irregularities, plan configuration problems.
	<u>15/03/23</u>	1	3.5 Safety consideration during additional construction and alteration of existing buildings.
	<u>16/03/23</u>	1	3.6 Additional strengthening measures in masonry building-corner reinforcement , lintel band, sill band etc.
	<u>17/03/23</u>	1	4 Retrofitting of Structure 4.1 Seismic retrofitting of reinforced concrete buildings
6th	<u>21/03/23</u>	1	4.2 Sources of weakness in RC frame building 4.3 classification of retrofitting techniques and their uses
	<u>22/03/23</u>	1	5 Building Services .5.1 Cold water distribution in high rise building, layout of installation
	<u>23/03/23</u>	1	.5.1 Cold water distribution in high rise building, layout of installation
	<u>24/03/23</u>	1	5.2 Hot water supply -general principles for central plants- layout
7th	<u>28/03/23</u>	1	5.3 Sanitation-soil and waste water installation in high rise buildings
	<u>29/03/23</u>	1	5.4 Electrical services-i) requirements in high rise buildings
	<u>31/03/23</u>	1	5.4 ii) layout of wiring
8th	<u>4/04/23</u>	1	Monthly Class Test-2
	<u>5/04/23</u>	1	iii) fuses and their types iv) earthing
	<u>6/04/23</u>	1	5.5 Lighting
9th	<u>11/04/23</u>	1	5.6 Ventilation
	<u>12/04/23</u>	1	5.7 Mechanical services-lift , escalator, elevators- types and uses.
	<u>13/04/23</u>	1	5.7 Mechanical services-lift , escalator, elevators- types and uses.
10th	<u>18/04/23</u>	1	6 Construction and earth moving equipments 6.1 Planning and selection of construction

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			equipments
	<u>19/04/23</u>	1	6.2 Study on earth moving equipments
	<u>20/04/23</u>	1	6.3 Study and uses of compacting equipments like tamping rollers, smooth wheel rollers, pneumatic tired rollers and vibrating compactors
	<u>21/04/23</u>	1	6.3 Study and uses of compacting equipments like tamping rollers, smooth wheel rollers, pneumatic tired rollers and vibrating compactors
11th	<u>25/04/23</u>	1	Monthly Class Test 3
	<u>26/04/23</u>	1	6.4 Owning and operating cost-problems
	<u>27/04/23</u>	1	7 Soil reinforcing techniques 7.1 Necessity of soil reinforcing
	<u>28/04/23</u>	1	INTERNAL ASSESSMENT
12th	<u>2/05/23</u>	1	7.2 Use wire mesh and geo-synthetics
	<u>3/05/23</u>	1	7.3 Strengthening of embankments
	<u>4/05/23</u>	1	7.3 Slope stabilization in cutting
	<u>5/05/23</u>	1	7.3 embankments by soil reinforcing techniques.
13th	<u>09/05/23</u>	1	Revision
	<u>10/05/23</u>	1	Revision
	<u>11/05/23</u>	1	Previous Year Questions & Answer Discussion
	<u>12/05/23</u>	1	Previous Year Questions & Answer Discussion
14th	<u>16/05/23</u>	1	Revision
	<u>17/05/23</u>	1	Revision
	<u>18/05/23</u>	1	Previous Year Questions & Answer Discussion
	<u>19/05/23</u>	1	Previous Year Questions & Answer Discussion
15th	<u>23/05/23</u>	1	Previous Year Questions & Answer Discussion