

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



LESSONPLAN

SUBJECT:ADVANCE CONSTRUCTION TECHNIQUES & EQUIPMENT (TH3)	ACADEMICSESSION:2023-24
FACULTY: SWARNAPRAVA DEVI	SEMESTER:6 TH
	SEC -A

Sd/-
HOD(CivilEngineering.)

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Discipline: Civil Engineering	Semester: 6th (A)		Name of the teaching faculty:
Subject: ACTE	No. of Days/ per week class allotted: 04 periods per week. (Mon-1, Tue-1, Wed-1, Thu-1, period)		SWARNAPRAVA DEVI
			Semester From Date: 16-01-2024
			To Date: 26-04-2024
			No. of weeks: 15 weeks
Week	Class Day	No of period available	Theory Topics
1st	16/01/24	1	1 Advanced construction Materials 1.1 Fibers and plastic:-Types of fibers-steel,carbon, glass fibers as construction materials, properties of fibers
	17/01/24	1	1.1 Types of plastics-PVC,RPVC,HDPE,FRP,GRP,etc.Colored plastic sheets.Use of plastic as construction material
	18/01/24	1	1.2 Artificial Timber-Properties and uses of artificial timber.Types of artificial timber available in market, strength of artificial timber.
2nd	22/01/24	1	1.3 Miscellaneous materials-Properties and uses of acoustics materials,wall cladding , plaster boards,micro-silica,artificialsand,bondingagents,adhesives etc.
	24/01/24	1	2 Prefabrication 2.1 Introduction,necessity and scope of prefabrication
	25/01/24	1	2.1 History of prefabrication,current uses of prefabrication,types of prefabricated systems
3rd	29/01/24	1	2.1 Classification of prefabrication,advantages and disadvantages of prefabrication
	30/01/24	1	2.2 The theory and process of prefabrication
	31/01/24	1	2.2 Design principle of prefabricated systems,types of prefabricated elements
	01/02/24	1	2.2 modular coordination
4th	05/02/24	1	2.3 Indian standard recommendation for modular planning
		1	3 Earthquake Resistant Construction

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			3.1 Building configuration
	06/02/24	1	3.2 Lateral load resisting structures3 Building characteristics
	07/02/24	1	3.3 Building characteristics
	08/02/24	1	3.4 Effect of structural irregularities-vertical irregularities,plan configuration problems.
5th	12/02/24	1	3.5 Safety consideration during additional construction and alteration of existing buildings.
	13/02/24	1	3.6 Additional strengthening measures in masonry building-corner reinforcement ,lintel band,sill band etc.
	15/02/24	1	4 Retrofitting of Structure 4.1 Seismic retrofitting of reinforced concrete buildings
6th	19/02/24	1	4.2 Sources of weakness in RC frame building
	20/02/24	1	4.3 classification of retrofitting techniques and their uses
	21/02/24	1	5 Building Services .5.1 Cold water distribution in high rise building,layout of installation
	22/02/24	1	.5.1 Cold water distribution in high rise building,layout of installation
7th	26/02/24	1	5.2 Hot water supply -general principles for central plants- layout
	27/02/24	1	5.3 Sanitation-soil and waste water installation in high rise buildings
	28/02/24	1	Monthly class test 1
	29/02/24	1	5.4 Electrical services-i)requirements in high rise buidings
8th	04/03/24	1	5.4 ii)layout of wiring
	06/03/24	1	iii)fuses and their types iv) earthing
	07/03/24	1	5.5 Lighting
9th	11/03/24	1	5.6 Ventilation
	12/03/24	1	5.7 Mechanical services-lift ,escalator,elevators-types and uses.
	13/03/24	1	5.7 Mechanical services-lift ,escalator,elevators-types and uses.
	14/03/24	1	6 Construction and earth moving equipments 6.1 Planning and selection of construction equipments
10th	16/03/24	1	6.2 Study on earth moving equipments
	19/03/24	1	6.3 Study and uses of compacting equipments like tamping rollers,smooth wheel

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			rollers,pneumatic tired rollers and vibrating compactors
	20/03/24	1	6.3 Study and uses of compacting equipments like tamping rollers,smooth wheel rollers,pneumatic tired rollers and vibrating compactors.
	21/03/24	1	7 Soil reinforcing techniques 7.1 Necessity of soil reinforcing
11th	27/03/24	1	Monthly Class Test 2
	28/03/24	1	6.4 Owning and operating cost-problems
12th	02/04/24	1	INTERNAL ASSESSMENT
	03/04/24	1	INTERNAL ASSESSMENT
	04/04/24	1	7.2 Use wire mesh and geo-synthetics 7.3 Strengthening of embankments
13th	08/04/24	1	7.3 Slope stabilization in cutting
	09/04/24	1	7.3 embankments by soil reinforcing techniques.
	10/04/24	1	Previous Year Questions & Answer Discussion
14th	15/04/24	1	Previous Year Questions & Answer Discussion
	16/04/24	1	Revision
	18/04/24	1	Revision
15th	22/04/24	1	Previous Year Questions & Answer Discussion
	23/04/24	1	Previous Year Questions & Answer Discussion
	24/04/24	1	Previous Year Questions & Answer Discussion