

DEPARTMENT OF CIVIL ENGINEERING, OSME KEONJHAR

Lesson Plan for Winter 2022-23

Lesson Plan for winter 2022-23					
Subject: <u>Geotechnical Engineering(3rd semester)</u>		No. of Days/Per week class allotted: <u>04hrs</u>	Name of the faculty: <u>Er. Lopamudra Nayak</u>	Semester From Date: <u>15-09-2022</u> To Date: <u>22-12-2022</u> No. of weeks: <u>13</u>	
Month	Week	Date/Class Day	Periods Available	Topic To Be Covered	
SEPTEMBER	1st	16-09-2022	1	<u>CHAPTER 1 - INTRODUCTION</u> Briefing of syllabus , introduction about the subject, books required, classroom rules 1.1 soil and soil engineering	
		17-09-2022	1	1.2 scope of soil mechanics 1.3 origin of soil <u>CHAPTER 2 - PRILIMINARY DEFINITIONS AND RELATIONSHIP</u> 2.1 description of phase system in soil	
	2nd	21-09-2022	2	2.2 description about prilliminary elements used In soil mechanics, water content void ratio, porosity of soil, degree of saturation, air content and numerical practice	
		23-Sep	1	percentage air voids, unit weight of soil, relationship between various parameters, specific gravity, numerical practice	
		24-09-2022	1	numerical practice and Question answer discussion	
	3rd	28-09-2022	2	<u>CHAPTER 3 - INDEX PROPERTIES OF SOIL</u> 3.1 water content, specific gravity 3.2 particle size distribution	
		30-09-2022	1	3.2 sieve analysis and numerical practice	
	OCTOBER	4th	01-10-2022	1	3.3 consistency of soil, atterberg's limits, plasticity, liquidity and consistency index, numerical practice
					<u>CHAPTER 4 - CLASSIFICATION OF SOIL</u>
			12-10-2022	2	Question answer discussion 4.1 different classification of soil
5th		14-10-2022	1	4.2 Description about Indian standard classification system	
		15-10-2022	1	Numerical practice and question answer discussion	
				<u>CHAPTER 5 - PERMEABILITY AND SEEPAGE</u>	
6th		19-10-2022	2	5.1 definition of permliability , Darcy's law, coefficient of permiability	
		21-Oct	1	5.2 Factors affecting permeability, 5.3 constant head permeability test	
		22-10-2022	1	Numerical practice	
		26-10-2022	2	5.3 falling head permeability test and numerical practice on constant head and falling head permeability test	
NOVEMBER	7th	27-10-2022		Monthly test for the month of october	
		28-10-2022	1	5.4 Seepage pressure, effective stress and phenomenon of quick sand	
		29-Oct	1	Numerical practice and question answer discussion	
	8th	02-11-2022	2	<u>CHAPTER 6 - COMPACTION AND CONSOLIDATION</u> 6.1 Description of compaction, light and heavy compaction test, Optimum moisture content of soil	
		04-11-2022	1	6.2 maximum dry density, zero air voin line, different factors affecting compaction, Numerical practice	
		05-11-2022	1	6.2 description of consolidation, difference between compaction and consolidation, Numerical practice	
	9th	09-11-2022	2	Question answer discussion 7.1 concept of shear strength, introduction to mohr's coulumb theory	
				<u>CHAPTER 7 - SHEAR STRENGTH</u>	
		11-11-2022	1	Cohession, angle of internal friction, strength envelope for different type of soil	
		12-11-2022	1	basic numericals, Direct shear test, triaxial test	
16-11-2022 17-11-2022			Internal Examination		
18-11-2022		1	Vane shear test and Unconfined compression test Question answer discussion and revision		
	19-11-2022	1	<u>CHAPTER 8 - EARTH PRESSURE RETAINING STRUCTURES</u> 8.1 Concept of earth pressure , introduction to different type of earth pressure, earth pressure at rest		

DECEMBER	10th	25-11-2022	1	8.1 active earth pressure, passive earth pressure, earth pressure at rest
		26-11-2022	1	Numerical practice on active, passive and earth pressure at rest
		28-11-2022		Monthly test for the month of november
	11th	30-11-2022	2	Numerical Practice
		02-12-2022	1	8.2 Rankine's earth pressure theory for backfill with no sur charge and backfil with unifrom surcharge
		03-12-2022	1	Numerical practice and question answer discussion
	12th			CHAPTER 9 - FOUNDATION ENGINEERING
		07-12-2022	2	9.1 introduction to foundation, functions of foundaions, classification, different type of shallow and deep foundation with neet sketch
		09-12-2022	1	Types of failure in foundations 9.2 Bearing capacity of soil
		10-12-2022	1	Terzaghi's formulae and IS code formulae for strip, circular and square footing
		14-12-2022	2	Numerical practice of bearing capacity of soil
	13th	16-12-2022	1	9.3 Plate load test and standard penetration test
		17-12-2022	1	Numerical practic
		21-12-2022	2	Final Revision & Probable Question Answer Discussion
	14th			
		TOTAL	46	Model Test

FACULTY SIGNATURE

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OSME, KEONJHAR

DEPARTMENT OF CIVIL ENGINEERING, OSME KEONJHAR

Lesson Plan For Winter 2022-23

Subject: <u>Civil Engineering</u> <u>Drawing I</u>			No. of Days/Per week class allotted : <u>09hrs</u>	Name of the faculty: <u>Er. LopamudraNayak</u>	Semester From Date: <u>15-09-2022</u> To Date: <u>22-12-2022</u> No. of weeks: <u>14</u>
Month	Week	Date/Class Day	Periods Available	Topics to be covered	
CHAPTER-1: AUTOCAD SOFTWARE					
SEPTEMBER	1 st	17.09.2022	2	Briefing of syllabus, Recap of the Draw, Format, Edit, Dimension, Modify commands	
	2 nd	21.09.2022	3	Draw 2D drawings of Doors, Windows, Cross section through wall, Spread footing, Column footing, Stairs case, R.C.C. T-beam and slab	
		24.09.2022	2	Practice	
	3 rd	28.09.2022	3	Practice	
		01.10.2022	2	Develop Isometric drawings of simple objects	
OCTOBER	4 th	12.10.2022	3	Develop 3D drawings of simple objects.	
		15.10.2022	2	Practice	
	5 th	19.10.2022	3	Practice and Submission	
	CHAPTER-2: PLAN, ELEVATION AND SECTIONAL ELEVATION OF FLAT ROOF BUILDING FROM LINE DIAGRAM AND GIVEN SPECIFICATIONS with use of AutoCAD software.				
	5 th	22.10.2022	2	Plan at window sill level of a single storeyed R.C. roof slab building with elevation and sectional views from given line diagram and specification.	
	6 th	26.10.2022	3	Practice	
		29.10.2022	2	Detail drawing of Double storeyedpucca building with R.C.C. stair case from line diagram and given specification	
NOVEMBER	7 th	02.11.2022	3	Practice	
		05.11.2022	2	Practice	
	8 th	09.11.2022	3	Preparation of approval drawing of a residential building as per the norms of local approving authority with site plan, index plan etc.	
		12.11.2022	2	Practice and Submission	
	CHAPTER-3: PLAN, ELEVATION AND SECTION OF INCLINED ROOF BUILDING WITH AC SHEET/GCI/TILES ON WOODEN STRUCTURE with use of AutoCAD Commands				
9 th	16.11.2022		Internal examination		
	19.11.2022	2	Detail drawing of inclined roof building from given line diagram and specification. (gabbled / hipped)		
10 th	23.11.2022	3	Practice		
	26.11.2022	2	Practice		
CHAPTER-4: BUILDING PLANNING					
	11 th	30.11.2022	3	Planning of buildings for specific cost based on approximate plinth area rate.	

DECEMBER		03.12.2022	2	Practice
	12th	07.12.2022	3	Orientation of buildings, location of openings and living areas
		10.12.2022	2	Practice
	13 th	14.12.2022	3	Line plan of School, hostel, market complex and dispensary building.
		17.12.2022	3	Practice and submission
	14th	21.12.2022	3	Record Submission
	TOTAL		63	

[Signature]
14-09-2022
Concerned Faculty

[Signature]
14/9/22
HOD Civil,
OSME Keonjhar.

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Principal
OSME Keonjhar