

LESSON PLAN

NAME OF THE FACULTY : Kuldeep  
DISCIPLINE : ARCHITECTURAL ASSISTANTSHIP  
SEMESTER : 3<sup>rd</sup>  
SUBJECT : SURVEYING  
LESSON PLAN DURATION : 15 WEEKS  
WORK LOAD PER WEEK : 05

WEEK	LECTURE DAY	THEORY & PRACTICAL
		TOPIC
1 <sup>ST</sup>	1.	<b>Introduction:</b>
	2.	Basic principles of surveying and types of surveying
	3.	Concept of surveying
2 <sup>ND</sup>	4.	Purpose of surveying
	5.	Measurements-linear and angular, units of measurements
	6.	Instruments used for taking these measurement
3 <sup>RD</sup>	7.	Classification of survey based on instruments
	8.	System of conversion of land measurements from traditional revenue Maps/records to MKS.
	9.	<b>Chain surveying:</b> Purpose of chain surveying, Principles of chain surveying
4 <sup>TH</sup>	10.	.Practical Exercises of chain surveying
	11.	Practical Exercises of chain surveying
	12.	Errors in chain surveying
5 <sup>TH</sup>	13.	Corrections to chain length.
	14.	Simple related problems.
	15.	<b>SESSIONAL TEST- 1st</b>

6 <sup>TH</sup>	16.	<b>Compass surveying:</b> Purpose of compass surveying, Construction and working of prismatic compass,
	17.	Use of prismatic compass: Setting and taking observations
	18.	Practical Exercises of compass surveying
7 <sup>TH</sup>	19.	Use of prismatic compass: Setting and taking observations
	20.	Concept of: (a) Meridian - Magnetic and true b) Bearing - Magnetic, True and Arbitrary
	21.	Practical Exercises of compass surveying
8 <sup>TH</sup>	22.	(c) Whole circle bearing and reduced bearing (d) Fore and back bearing
	23.	Local Attraction-causes, Detection & precautions against local attraction
	24.	Practical Exercises of compass surveying
9 <sup>TH</sup>	25.	<b>Levelling:</b> Purpose and concept of levelling, reduced level and bench marks
	26.	Construction of Dumpy level Concepts of line of collimation, axis of the bubble tube, axis of the telescope and vertical axis.
	27.	Practical Exercises of levelling.
10 <sup>T</sup> H	28.	Temporary adjustment: setting up and leveling
	29.	Concept of back sight, foresight, intermediate sight, station change point, to determine reduced levels
	30.	<b>SESSIONAL TEST- 2nd</b>
11 <sup>T</sup> H	31.	Level book and reduction of levels by
	32.	Height of instrument method and Rise and fall method Arithmetic checks, problems on reduction of levels
	33.	Practical Exercises of levelling.
12 <sup>T</sup> H	34.	Computations of Areas of regular figure and irregular figure. Simpson rule
	35.	<b>Plane Table Surveying:</b> Purpose of plane table surveying, equipment used in plane table survey: (a) Plane table and its accessories
	36.	Practical Exercises of Plane Table Surveying.

13 <sup>T</sup> H	37.	Setting of a plane table:(a) Centering (b) Leveling (c) Orientation
	38.	Methods of plane table surveying (a) Radiation, (b) Intersection (c) Traversing Two Point Problem
	39.	Practical Exercises of Plane Table Surveying.
14 <sup>T</sup> H	40.	<b>Contouring:</b> Contouring: Concept of contouring.
	41.	Contouring: Concept of contouring. Contour interval and horizontal equivalent
	42.	Practical Exercises of Contouring.
15 <sup>T</sup> H	43.	<b>Instruments:</b> Demo and uses of : Theodolite
	44.	Use of Modern Surveying equipment (Auto Level, Micro-optic Theodolite, Total station.
	45.	<b>SESSIONAL TEST- 3rd</b>