

LESSON PLAN 2023-2024 (S)

Discipline: Civil Engineering		Name of The Teaching Faculty: Jyotirmayee samal			
Subject: Land Survey-I(Th-3)		Semester From Date: -16-01-2024 to -26-04-2024			
SEMESTER-4th		No. Of Weeks: 15		5 P/WEEK	
No. of Days/week class allotted: 04 period per week (Mon, Tues, Wed, Thu, Fri day 1 Period each)					TOTAL PERIOD-75
MONTH	WEEK	DATE	DAYS /PERIOD	SYLLABUS TO BE COVERED	NOS. OF PERIODS AVAILABLE
				INTRODUCTION TO SURVEYING, LINEAR MEASUREMENTS:	7
JAN	3rd	1/16/2024	Tue	1.1 Surveying: Definition, Aims and objectives	1
		1/17/2024	Wed	1.2 Principles of survey-Plane surveying- Geodetic Surveying- Instrumental surveying.	1
		1/18/2024	Thu	1.3 Precision and accuracy of measurements, instruments used for measurement of distance	1
		1/19/2024	Fri	Types of tapes and chains	1
	4th	1/22/2024	Mon	1.4 Errors and mistakes in linear measurement – classification, Sources of errors and remedies.	1
		1/24/2024	Wed	1.5 Corrections to measured lengths due to-incorrect length, temperature variation, pull, sag, numerical problem applying corrections.	1
		1/25/2024	Thu	Problems	1
	5th			CHAINING AND CHAIN SURVEYING :	7
		1/29/2024	Mon	2.1 Equipment and accessories for chaining	1
		1/30/2024	Tue	2.2 Ranging – Purpose, signaling, direct and indirect ranging, Line ranger – features and use, error due to incorrect ranging.	1

		1/31/2024	Wed	2.3 Methods of chaining –Chaining on flat ground, Chaining on sloping ground – stepping method, Clinometer-features and use, slope correction.	1
FEB	1st	2/1/2024	Thu	2.4 Setting perpendicular with chain & tape, Chaining across different types of obstacles –Numerical problems on chaining across obstacles.	1
		2/2/2024	Fri	2.5 Purpose of chain surveying, Its Principles, concept of field book. Selection of survey stations, base line, tie lines, Check lines.	1
	2nd	2/5/2024	Mon	2.7 Offsets – Necessity, Perpendicular and	1
		2/6/2024	Tue	2.8 Errors in chain surveying –	
				ANGULAR MEASUREMENT AND COMPAS	12
		2/7/2024	Wed	3.1 Measurement of angles with chain,	1
		2/8/2024	Thu	3.2 Compass – Types, features, parts,	1
		2/9/2024	Fri	3.3 Designation of angles- concept of	1
	3rd	2/12/2024	Mon	Numerical problems on conversion of	1
		2/13/2024	Tue	3.4 Use of compasses – setting in field-	1
		2/15/2024	Thu	Class test 1	1
		2/16/2024	Fri	3.5 Effects of earth’s magnetism – dip of	1
	4th	2/19/2024	Mon	3.6 Errors in angle measurement with	1
		2/20/2024	Tue	3.7 Principles of traversing – open &	1
		2/21/2024	Wed	3.8 Local attraction – causes, detection,	1
		2/22/2024	Thu	.3.9 Errors in compass surveying – sources	1
		2/23/2024	Fri	PROBLEMS	1
	5th			MAP READING CADASTRAL MAPS &	7
		2/26/2024	Mon	4.1 Study of direction, Scale, Grid	1
		2/27/2024	Tue	4.1 Study of direction, Scale, Grid	1
		2/28/2024	Wed	4.2 Cadastral Map Preparation	1
		2/29/2024	Thu	4.3 Unique identification number of parcel	1
	MAR	1st	3/1/2024	Fri	4.4 Positions of existing Control Points and
2nd		3/4/2024	Mon	4.5 Adjacent Boundaries and Features,	1
		3/6/2024	Wed	4.5 Adjacent Boundaries and Features,	1
				PLANE TABLE SURVEYING	7
		3/7/2024	Thu	5.1 Obiectives, principles and use of plane	1
3rd		3/11/2024	Mon	5.2 Instruments & accessories used in	1
		3/12/2024	Tue	5.3 Methods of plane table surveying – (1)	1
		3/13/2024	Wed	5.3 Methods of plane table surveying – (3)	1
		3/14/2024	Thu	5.4 Statements of TWO POINT and THREE	1
		3/15/2024	Fri	Errors in plane table surveying and their	1
		3/18/2024	Mon	Class test 2	1

			THEODOLITE SURVEYING AND	15		
	4th	3/19/2024	Tue	6.1 Purpose and definition of theodolite	1	
		3/20/2024	Wed	6.2 Transit theodolite- Description of	1	
		3/21/2024	Thu	Fundamental axes of a theodolite,	1	
		3/22/2024	Fri	6.4 Measurement of magnetic bearings,	1	
	5th	3/27/2024	Wed	Setting out angles, prolonging a straight	1	
		3/28/2024	Thu	6.5 Methods of theodolite traversing with	1	
APR	1st	4/2/2024	Tue	Checks for open and closed traverse.	1	
		4/3/2024	Wed	Methods of theodolite traversing with	1	
		4/4/2024	Thu	6.6 Traverse computation – consecutive	1	
		4/5/2024	Fri	6.7 Closing error – adjustment of angular	1	
	2nd	4/8/2024	Mon	Gale’s traverse table, Numerical problems	1	
		4/9/2024	Tue	6.8 Balancing of traverse – Bowditch’s	1	
		4/10/2024	Wed	Transit method,Axis method,calculation of	1	
	3rd	4/12/2024	Fri	Graphical method,	1	
		4/15/2024	Mon	Transit method,Axis method,calculation of	1	
		4/16/2024	Tue	calculation of area of closed traverse.	1	
		4/18/2024	Thu	class test 3	1	
				LEVELLING AND CONTOURING	15	
		4th	4/19/2024	Fri	7.1 Definition and Purpose and types of	1
			4/22/2024	Mon	7.2 Instruments used for leveling,	1
			4/23/2024	Tue	7.3 Levelling staff – Temporary	1
			4/24/2024	Wed	7.4 Field data entry – level Book – height	1
	4/25/2024		Thu	Numerical problems on reduction of	1	
	4/26/2024		Fri	7.5 Effects of curvature and refraction,		
			7.6 Reciprocal leveling – principles,	15P		
			7.7 Errors in leveling and precautions,			
			7.8 Definitions, concepts and			
			7.9 Methods of contouring, plotting			
			7.9 Methods of contouring, plotting			
			7.10 Use of contour maps on civil	15P		
			7.10 Use of contour maps on civil			
			7.11 Map Interpretation: Interpret Human			
			Interpret Physical landform (i.e.: Relief,			
			COMPUTATION OF AREA & VOLUME(5P)			
			8.1 Determination of areas, computation	15P		
			8.2 Calculation of area by using ordinate			
			Calculation of area by using trapezoidal			
			8.3 Calculation of volumes by Prismoidal			
			8.3 Calculation of volumes by trapezoidal			