

Lesson Plan

Subject LAND SURVEY-I (Code) TH-3 Name of faculty SHARADH DEHERA  
 Semester 4TH Class allotted FS Branch CIVIL ENGINE

Discipline	Semester	From date:	To date:	Teaching Aid
Subject	No. of days/ per week	Theory/ Practical - Topics/Lesson		
Week	Date/Period			
1	14.02.23	Ch-1 - Introduction to Surveying, linear measurements		white board & marker
	to	1.1 Surveying: Definition, Aims and objectives		
	17.02.23	1.2 Principles of survey - plane, Geodetic and Instrumental		
	(04 P/W)			
2	20.02.23	Ch-1 1.3 - Precision and accuracy of measurements		white board & marker
	to	1.4 - Errors and mistakes in linear measurement		
	25.02.23	(Classification, Sources of errors and Remedies)		
	(06 P/W)	1.5 - Corrections to measured length due to - incorrect length, temperature variation, pull, sag, numerical problem applying corrections		
3	27.02.23	Ch-2 - Chaining and chain surveying		White board & marker
	to	2.1 - Equipment and accessories for chaining		
	04.03.23	Ch-2 - Ranging - purpose, signaling, direct and indirect ranging, line ranges, features and use, error due to incorrect ranging		
	(06 P/W)	2.3 method of chaining - chaining on flat ground, chaining on slope ground, stepping		
3	27.02.23	Method, clinometer - features and use, slope correction,		White board & marker
	to	2.4 - Setting perpendicular with chain & tape, chaining across different types of obstacles		
	04.03.23	- Numerical problem on chaining across obstacles.		
	(06 P/W)	2.5 - purpose of chain surveying, its principle, concept of field book. Selection of survey stations, base line, tie lines, check lines		
4		2.6 - offsets - Necessity, perpendicular and oblique offsets, instruments for setting offsets		
		- Cross Staff, optical square.		

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Week	Date/Period	Theory/ Practical - Topics/Lesson	Teaching Aid
3	06.03.23	Ch-2 2.1 Errors in chain surveying - compensating and accumulative errors caused	
	to	2.2 Remedies precaution to be taken during chain surveying	
	11.03.23		
	(06 P/W)	Ch-3 3.1 measurement of angles with chain	
4	06.03.23	Use of compass	white board
	to	3.2 Compass - Types, features, parts, merits & demerits, testing & adjustment of compass	& marker
	11.03.23	3.3 - Designation of angles - concept of meridians - magnetic, true, arbitrary	
	(06 P/W)	Concept of bearing - whole circle bearing, quadrant bearing, reduced bearing, suitability of application, numerical problems on conversion of bearings	
5	13.03.23	3.4 - Use of compass - setting in field - centering, leveling, taking readings, concepts of true bearing, back bearing	white board
	to		& marker
	18.03.23	Numerical problem on computation of interior & exterior angles from bearings	
	(06 P/W)	3.5 - Effects of earth's magnetism - dip of needle, magnetic declination, variation in declination, numerical problems on application of correction for declination	
6	13.03.23	3.6 - Errors in angle measurement with compass - Sources & Remedies	
	to	3.7 - Principles of traversing - open & closed traverse, methods of traversing	
	18.03.23	3.8 - Local attraction - causes, detection errors, corrections, Numerical problems of application of correction due to local attraction	
	(06 P/W)	3.9 - Errors in compass surveying. Plotting of traverse	
6	20.03.23	Ch-4 map Making <u>cadastrial maps</u>	white board
	to	<u>Nomenclature</u>	& marker
	25.03.23	4.1 Study of direction, scale, grid reference and grid square	
	(06 P/W)	4.2 - cadastrial map preparation methodology	

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Samr Singh Sharma  
Signature of faculty

Lesson Plan

LAND SURVEY

(Code) TH-3

Name of faculty SAMAR SINGH BEHERA

Semester 4TH

Class allotted 75

Branch CIVIL ENGG.

Discipline	Semester	From date:	To date:	Teaching Aid
Project	No. of days/ per week	Theory/ Practical - Topics/Lesson		
Week	Date/Period			
7	27.03.23	4.3 Unique identification numbers of parcels		white board & marker
	to	4.4 - positions of existing control points and its types		
	31.03.23	4.5 Adjacent boundaries and features, Topology		
	(04 P/W)	creation and verification.		
8	03.04.23	Ch-5- plane table surveying		white board & marker
	to	5.1 Objectives, principles and use of plane table surveying		
	08.04.23	5.2 - instruments & accessories used in plane surveying		
	(05 P/W)			
9	10.04.23	5.2 methods of plane table survey		white board & marker
	to	5.4 statements of two point and three point problem		
	15.04.23	Ch-6. Theodolite Surveying and traversing		
	(05 P/W)	6.1 - purpose and definition of theodolite surveying		
10	17.04.23	6.2 Transit theodolite, 6.3 - concept of traversing		white board & marker
	to	6.4 - measurement of magnetic bearing, deflection angle, direct angle, setting out angle		
	21.04.23	6.5 method of theodolite traversing with		
	(06 P/W)	6.6 - Traverse computation, 6.7 - closing error		
11	24.04.23	6.8 - closing of traverse		white board & marker
	to	Ch-7 - Levelling & contouring		
	29.04.23	7.1 - Definition & purpose and types of leveling		
	(05 P/W)	7.2 instruments used for leveling, concept of line of collimation, auto bubble level		
12	01.05.23	7.3 - Levelling staffs 7.4 - Field data entry		white board & marker
	to	7.5 - Effects of curvature and refraction, curvature problems on application of connection		
	06.05.23	7.6 - Reciprocal leveling, 7.7 - Errors in leveling and precautions, Permanent and Temporary adjustments		
	(05 P/W)	of different types of levels, 7.8 - Definitions, concepts and characteristics of contours, 7.9 - methods of contouring, plotting contour maps, interpretation of contour maps, toposheets, 7.10 - use of contour map on civil engineering projects.		
13	08.05.23			white board & marker
	to			
	13.05.23			
	(06 P/W)			

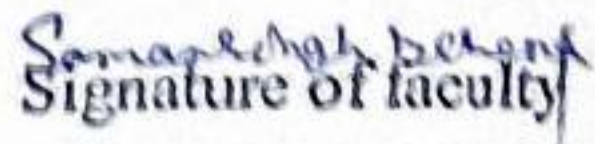
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Samar Singh Behera  
Signature of faculty

Week	Date/Period	Theory/ Practical - Topics/Lesson	Teaching Aid
14	15-05-23 to	Ch-7 - Fill map interpretation - internet Human and economic activities	
	20-05-23 (05 P/W)	ch-8 - computation of area & vol <sup>n</sup> §1 - Determination of Areas, Computation of Area Examples §2 - Cal <sup>n</sup> of Area by using ordinate rule.	
15	22-05-23 to	Trapezoidal Rule §3 - Cal <sup>n</sup> of vol <sup>n</sup> by trapezoidal rule and trapezoidal formulae, corrections, corrections	
	23-05-23 (02 P/W)		



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