

LESSON PLAN

BRANCH-CIVIL ENGG		NAME-ANITA PRADHAN			
Subject:LAND SURVEY-II(TH-I)		Semester From Date:04-02-2025 To Date 17-05-2025			
SEMESTER-6th		No. Of Weeks:17			5P/WEEK
No. of Days/week class allotted:05 period per week(Mon,Tue,Thu,Sat-2 Period each)					TOTAL PERIOD-75
MONTH	Week	DATE	DAYS	Syllabus to be covered	NO. OF PERIODS AVAILABLE
				TACHEOMETRY:	9
F E B R U A R Y	2nd	04-02-2025	Tuesday	Introduction	1
		06-02-2025	Thursday	Principles, stadia constants determination	1
	3rd	10-02-2025	Monday	Principles, stadia constants determination	1
		11-02-2025	Tuesday	Stadia tacheometry with staff held vertical and with line of collimation horizontal	1
		13-02-2025	Thursday	Stadia tacheometry with staff held vertical and with line of collimation inclined	1
		15-02-2025	Saturday	Numerical problems	1
		15-02-2025	Saturday	Elevations and distances of staff stations	1
		4th	17-02-2025	Monday	Numerical problems
	18-02-2025		Tuesday	Numerical problems	1
				CURVES	8
	20-02-2025		Thursday	Introduction	1
	5th	24-02-2025	Monday	Compound, reverse and transition curve, Purpose & use of different types of curves in field	1
		25-02-2025	Tuesday	Elements of circular curves	1
		27-02-2025	Thursday	Numerical problems	1
	1st	01-03-2025	Saturday	Preparation of curve table for setting out	1
01-03-2025		Saturday	Preparation of curve table for setting out	1	
03-03-2025		Monday	Setting out of circular curve by chain and tape and by instrument angular methods (i)offsets from long chord,(ii)successive bisection	1	
04-03-2025		Tuesday	Setting out of circular curve by chain and tape and by instrument angular methods (i)offsets from long chord,(ii)successive bisection of arc,(iii)offsets from tangents,(iv)offsets chord produced,(v)Rankine's method of tangent angles.Obstacles in curve ranging – point of intersection inaccessible	1	
2nd					

M A R C H			BASICS ON SCALE AND BASICS OF MAP:	8		
				1		
		04-03-2025	Tuesday	Fractional or Ratio Scale, Linear Scale, Graphical Scale	1	
		06-03-2025	Thursday	What is Map, Map Scale and Map Projections	1	
	3rd		10-03-2025	Monday	How Maps Convey Location and Extent	1
			11-03-2025	Tuesday	How Maps Convey characteristics of features	1
			13-03-2025	Thursday	How Maps Convey Spatial Relationship	1
	4th		17-03-2025	Monday	Classification of Maps- Physical Map , Topographic Map, Road Map, Political Map, Economic & Resources Map, Thematic Map, Climate Map	1
			18-03-2025	Tuesday	Classification of Maps- Physical Map , Topographic Map, Road Map, Political Map, Economic & Resources Map, Thematic Map, Climate Map	1
			20-03-2025	Thursday	Classification of Maps- Physical Map , Topographic Map, Road Map, Political Map, Economic & Resources Map, Thematic Map, Climate Map	1
				SURVEY OF INDIA MAP SERIES	10	
	5th		24-03-2025	Monday	Open Series map	1
			25-03-2025	Tuesday	Open Series map	1
		27-03-2025	Thursday	Defense Series Map	1	
		29-03-2025	Saturday	Defense Series Map	1	
		29-03-2025	Saturday	Map Nomenclature, Quadrangle Name	1	
A P R I L	1st		03-04-2025	Thursday	Latitude, Longitude, UTM's	1
			05-04-2025	Saturday	Contour Lines	1
			05-04-2025	Saturday	Magnetic Declination	1
	2nd		07-04-2025	Monday	Public Land Survey System	1
			08-04-2025	Tuesday	Field Notes	1
					BASICS OF AERIAL PHOTOGRAPHY, PHOTOGRAMMETRY, DEM AND ORTHO IMAGE GENERATION	10
		10-04-2025	Thursday	Aerial Photography:	1	
	3rd		15-04-2025	Tuesday	Film, Focal Length, Scale	1
			17-04-2025	Thursday	Types of Aerial Photographs (Oblique, Straight)	1
			19-04-2025	Saturday	Photogrammetry, Classification of Photogrammetry	1
		19-04-2025	Saturday	Aerial Photogrammetry, Terrestrial Photogrammetry	1	
		21-04-2025	Monday	Acquisition of Imagery using aerial and satellite platform	1	

	4th	22-04-2025	Tuesday	Control Survey	1
		24-04-2025	Thursday	Geometric Distortion in Imagery	1
	5th	28-04-2025	Monday	DTM/DEM Generation	1
		29-04-2025	Tuesday	Ortho Image Generation	1
					MODERN SURVEYING METHODS :
M A Y	1st	01-05-2025	Thursday	Principles	1
		03-05-2025	Saturday	features and use of (i) Micro-optic theodolite, digital theodolite	1
		03-05-2025	Saturday	features and use of (i) Micro-optic theodolite, digital theodolite	1
	2nd	05-05-2025	Monday	Working principles of a Total Station (Set up and use of total station to measure angles, distances of points under survey from total station and the co-ordinates (X,Y & Z or northing, easting, and elevation) of surveyed points relative to Total Station position using trigonometry and triangulation.	1
		06-05-2025	Tuesday	Working principles of a Total Station (Set up and use of total station to measure angles, distances of points under survey from total station and the co-ordinates (X,Y & Z or northing, easting, and elevation) of surveyed points relative to Total Station position using trigonometry and triangulation.	1
		08-05-2025	Thursday	Working principles of a Total Station (Set up and use of total station to measure angles, distances of points under survey from total station and the co-ordinates (X,Y & Z or northing, easting, and elevation) of surveyed points relative to Total Station position using trigonometry and triangulation.	1
		13-05-2025	Tuesday	Working principles of a Total Station (Set up and use of total station to measure angles, distances of points under survey from total station and the co-ordinates (X,Y & Z or northing, easting, and elevation) of surveyed points relative to Total Station position using trigonometry and triangulation.	1
	3rd	15-05-2025	Thursday	Working principles of a Total Station (Set up and use of total station to measure angles, distances of points under survey from total station and the co-ordinates (X,Y & Z or northing, easting, and elevation) of surveyed points relative to Total Station position using trigonometry and triangulation.	1

	17-05-2025	Saturday	Working principles of a Total Station (Set up and use of total station to measure angles, distances of points under survey from total station and the co-ordinates (X,Y & Z or northing, easting, and elevation) of surveyed points relative to Total Station position using trigonometry and triangulation.	1
	17-05-2025	Saturday	Working principles of a Total Station (Set up and use of total station to measure angles, distances of points under survey from total station and the co-ordinates (X,Y & Z or northing, easting, and elevation) of surveyed points relative to Total Station position using trigonometry and triangulation.	1
E X T R A C L A S S	BASICS ON GPS & DGPS AND ETS:			10
	GPS-Global positioning system			
	GPS: - Global Positioning 7.1.1 Working Principle of GPS,GPS Signals 7.1.2 Errors of GPS,Positioning Methods			1
	DGPS: - Differential Global Positioning System			
	7.2.1 Base Station Setup,7.2.2 Rover GPS Set up			1
	7.2.3 Download, Post-Process and Export GPS data			1
	7.2.4 Sequence to download GPS data from flashcards			1
	7.2.5 Sequence to Post-Process GPS data			1
	7.2.6 Sequence to export post process GPS data,7.2.7 Sequence to export GPS Time tags to file			1
	ETS: - Electronic Total Station			
	7.3.1 Distance Measurement ,7.3.2 Angle Measurement			1
	7.3.3 Leveling			1
	7.3.4 Determining position			1
	7.3.5 Reference networks ,7.3.6 Errors and Accuracy			1
	BASICS OF GIS AND MAP PREPARATION USING GIS			10
	8.1 Components of GIS, Integration of Spatial and Attribute Information			1
	8.2 Three Views of Information System,8.2.1 Database or Table View, Map View and Model View			1
	8.3 Spatial Data Model ,8.4 Attribute Data Management and Metadata Concept			1
	8.5 Prepare data and adding to Arc Map.			1
	8.6 Organizing data as layers			1
8.7 Editing the layers.			1	

	8.8 Switching to Layout View.	1
	8.9 Change page orientation.8.10 Removing Borders.	1
	8.11 Adding and editing map information.	1
	8.12 Finalize the map	1