

Lesson Plan

Subject :- Land survey-II(Code) TH-1

Name of faculty:- Tina Guru

Semester : 6th

Class allotted- 75

Branch :- Civil engg.

Discipline	Semester:-	From date:-16/01/2024 Todate:26/04/2024	Teaching Aid
Subject:	No. of days/ per week 5p/w :	Theory/ Practical –Topics/Lesson	
Week	Date/Period		

1	16/01/2024 to 20/01/2024	1 TACHEOMETRY: (Only concepts; applications without derivation) 1.1 Principles, stadia constants determination 1.2 Stadia tacheometry with staff held vertical and with line of collimation horizontal or inclined, numerical problems	White board & marker
2	22/01/2024 to 27/01/2024	1.3 Elevations and distances of staff stations – numerical problems 2 CURVES : 2.1 compound, reverse and transition curve, Purpose & use of different types of curves in field	White board & marker
3	29/01/2024 to 03/02/2024	2.2 Elements of circular curves, numerical problems 2.3 Preparation of curve table for setting out 2.4 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 from chord produced, (v) Rankine's method of tangent angles (No derivation)	White board & marker
4	05/02/2024 to 10/02/2024	2.5 Obstacles in curve ranging – point of intersection inaccessible 3 BASICS ON SCALE AND BASICS OF MAP: 3.1 Fractional or Ratio Scale, Linear Scale, Graphical Scale 3.2 What is Map, Map Scale and Map Projections 3.3 How Maps Convey Location and Extent	White board & marker
5	12/02/2024 To 17/02/2024	3.4 How Maps Convey characteristics of features 3.5 How Maps Convey Spatial	White board & marker

		Relationship 3.5.1 Classification of Maps 3.5.1 Physical Map 3.5.2 Topographic Map 3.5.3 Road Map	
6	19/02/2024 To 24/02/2024	3.5.4 Political Map 3.5.5 Economic & Resources Map 3.5.6 Thematic Map 3.5.7 Climate Map	White board & marker
7	26/02/2024 To 02/03/2024	4 SURVEY OF INDIA MAP SERIES 4.1 Open Series map 4.2 Defense Series Map 4.3 Map Nomenclature 4.3.1 Quadrangle Name 4.3.2 Latitude, Longitude, UTM's	White board & marker
8	04/03/2024 To 09/03/2024	4.3.4 Contour Lines 4.3.5 Magnetic Declination 4.3.6 Public Land Survey System 4.3.7 Field Notes	White board & marker
9	11/03/2024 To 16/03/2024	5 BASICS OF AERIAL PHOTOGRAPHY, PHOTOGRAMMETRY, DEM AND ORTHO IMAGE GENERATION: 5.1 Aerial Photography: 5.1.1 Film, Focal Length, Scale 5.1.2 Types of Aerial Photographs (Oblique, Straight)	White board & marker
10	18/03/2024 To 23/03/2024	5.2 Photogrammetry: 5.2.1 Classification of Photogrammetry 5.2.2 Aerial Photogrammetry 5.2.3 Terrestrial Photogrammetry 5.3 Photogrammetry Process: 5.3.1 Acquisition of Imagery using aerial and satellite platform	White board & marker
11	27/03/2024 To 30/03/2024	5.3.2 Control Survey 5.3.3 Geometric Distortion in Imagery Application of Imagery and its support data Orientation and Triangulation Stereoscopic Measurement 19.9.1 X-parallax 19.2.2 Y-parallax 5.4 DTM/DEM Generation 5.5 Ortho Image Generation	White board & marker
12	02/04/2024 To 06/04/2024	6 MODERN SURVEYING METHODS : 6.1 Principles, features and use of (i) Micro-optic theodolite, digital theodolite 6.2 Working principles of a Total Station (Set up and use of total station to	White board & marker & smart board

		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.	
13	08/04/2024 To 13/04/2024	7 BASICS ON GPS & DGPS AND ETS: 7.1 GPS: - Global Positioning 7.1.1 Working Principle of GPS,GPS Signals, 7.1.2 Errors of GPS,Positioning Methods 7.2 DGPS: - Differential Global Positioning System 7.2.1 Base Station Setup 7.2.2 Rover GPS Set up 7.2.3 Download, Post-Process and Export GPS data 7.2.4 Sequence to download GPS data from flashcards 7.2.5 Sequence to Post-Process GPS data 7.2.6 Sequence to export post process GPS data 7.2.7 Sequence to export GPS Time tags to file	White board & marker
14	15/04/2024 To 20/04/2024	7.3 ETS: - Electronic Total Station 7.3.1 Distance Measurement 7.3.2 Angle Measurement 7.3.3 Leveling 7.3.4 Determining position 7.3.5 Reference networks 7.3.6 Errors and Accuracy	White board & marker
15	22/04/2024 ,to 26/04/2024	8 BASICS OF GIS AND MAP PREPARATION USING GIS 8.1 Components of GIS, Integration of Spatial and Attribute Information 8.2 Three Views of Information System 8.2.1 Database or Table View, Map View and Model View 8.3 Spatial Data Model 8.4 Attribute Data Management and Metadata Concept 8.5 Prepare data and adding to Arc Map. 8.6 Organizing data as layers. 8.7 Editing the layers. 8.8 Switching to Layout View. 8.9 Change page orientation. 8.10 Removing Borders. 8.11 Adding and editing map information. 8.12 Finalize the map	White board & marker & smart board

Signature of HOD

Signature of faculty