

LESSON PLAN (SUMMER-2022)		
SUBJECT- LAND SURVEYING-II (Th.1)		SEMESTER-6th, 3rd YEAR
FACULTY-SUDHASHREE MUNDA		
DATE	NO OF CLASSES	TOPICS TO BE COVERED
CHAPTER-1: TACHEOMETRY		
12.03.2022	01	(Only concepts; applications without derivation)- Principles, stadia constants determination
14.03.2022	01	Stadia tacheometry with staff held vertical and with line of collimation horizontal or inclined, numerical problems
15.03.2022	01	Elevations and distances of staff stations –
17.03.2022	02	numerical problems.
21.03.2022	01	Question Answer Discussion.
CHAPTER-2: CURVES		
22.03.2022	01	compound, reverse and transition curve
24.03.2022	01	Purpose & use of different types of curves in field
24.03.2022	01	Elements of circular curves, numerical problems
26.03.2022	01	Preparation of curve table for setting out
28.03.2022	01	MONTHLY CLASS TEST
29.03.2022	01	Setting out of circular curve by chain and tape and by instrument angular methods (i) offsets from long chord
31.03.2022	02	(ii) successive bisection of arc, (iii) offsets from tangents
02.04.2022	01	(iv) offsets from chord produced, (v) Rankine's method of tangent angles (No derivation)
04.04.2022	01	Obstacles in curve ranging – point of intersection inaccessible
CHAPTER-3: BASICS ON SCALE AND BASICS OF MAP		
05.04.2022	01	Fractional or Ratio Scale, Linear Scale, Graphical Scale
07.04.2022	02	What is Map, Map Scale and Map Projections
09.04.2022	01	How Maps Convey Location and Extent
11.04.2022	01	How Maps Convey characteristics of features ,How Maps Convey Spatial Relationship
12.04.2022	01	Classification of Maps -Physical Map, Topographic Map, Road Map
16.04.2022	01	Political Map, Economic & Resources Map, Thematic Map, Climate Map
18.04.2022	01	MONTHLY CLASS TEST
CHAPTER-4: SURVEY OF INDIA MAP SERIES		
19.04.2022	01	Open Series map ,Defense Series Map
21.04.2022	02	Map Nomenclature- Quadrangle Name Latitude, Longitude
23.04.2022	01	UTM's, Contour Lines, Magnetic Declination, Public Land Survey System, Field Notes
CHAPTER-5: BASICS OF AERIAL PHOTOGRAPHY, PHOTOGRAMMETRY, DEM AND ORTHO IMAGE GENERATION		
25.04.2022	01	Aerial Photography: Film, Focal Length, Scale, Types of Aerial Photographs (Oblique, Straight)
26.04.2022	01	Photogrammetry: Classification of Photogrammetry
28.04.2022	02	Aerial Photogrammetry, Terrestrial Photogrammetry

30.04.2022	01	Photogrammetry Process: Acquisition of Imagery using aerial and satellite platform
02.05.2022	01	Control Survey , Geometric Distortion in Imagery
05.05.2022	02	Application of Imagery and its support data , Orientation and Triangulation Stereoscopic Measurement- :X-parallax ,Y-parallax
07.05.2022	01	DTM/DEM Generation, Ortho Image Generation
09.05.2022	01	MONTHLY CLASS TEST
CHAPTER-6: MODERN SURVEYING METHODS		
10.05.2022	01	Principles, features and use of (i) Micro-optic theodolite, digital theodolite
12.05.2022	02	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.
CHAPTER-7: BASICS ON GPS & DGPS AND ETS:		
14.05.2022	01	GPS: - Global Positioning - Working Principle of GPS,GPS Signals
17.05.2022	01	Errors of GPS,Positioning Methods
19.05.2022	02	DGPS: - Differential Global Positioning System -Base Station Setup , Rover GPS Set up ,Download, Post-Process and Export GPS data
21.05.2022	01	Sequence to download GPS data from flashcards ,Sequence to Post-Process GPS data, Sequence to export post process GPS data
23.05.2022	01	Sequence to export GPS Time tags to file .
24.05.2022	01	ETS: - Electronic Total Station -Distance Measurement , Angle Measurement , Leveling
26.05.2022	02	Determining position, Reference networks , Errors and Accuracy
CHAPTER-8: BASICS OF GIS AND MAP PREPARATION USING GIS		
28.05.2022	01	Components of GIS, Integration of Spatial and Attribute Information, Three Views of Information System- Database or Table View, Map View and Model View .
31.05.2022	01	Spatial Data Model , Attribute Data Management and Metadata Concept .
02.06.2022	02	Prepare data and adding to Arc Map, Organizing data as layers, Editing the layers, Switching to Layout View.
04.06.2022	01	Change page orientation, Removing Borders, Adding and editing map information, Finalize the map
06.06.2022	01	MONTHLY CLASS TEST
07.06.2022	01	REVISION
09.06.2022	02	MODEL TEST
TOTAL	59	


 08/06/2022
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