

MAHAMAYA INSTITUTE OF MEDICAL AND TECHNICAL SCIENCE, NUAPADA

LESSON PLAN (MONTH: FEBRUARY TO MAY 2023)

FACULTY : Er.SANTOSH MAHANANDA

BRANCH: CIVIL ENGG.

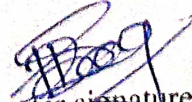
SESSION:2022-23

Subject:- LAND SURVEY-II		Semester:-6TH
Week	Class Day	Theory Topics
1st	1 st	TACHEOMETRY: (Only concepts; applications without derivation) 1.1 Principles, stadia constants determination
	2 nd	1.2 Stadia tacheometry with staff held vertical and with line of collimation horizontal or inclined
	3 rd	contd.
	4 th	contd.
	5 th	contd.
	6 th	
2nd	1 st	numerical problems
	2 nd	numerical problems
	3 rd	1.3 Elevations and distances of staff stations –
	4 th	numerical problems
	5 th	CURVES : 2.1 compound, reverse and transition curve
	6 th	
3rd	1 st	Purpose & use of different types of curves in field
	2 nd	2.2 Elements of circular curves, numerical problems
	3 rd	2.3 Preparation of curve table for setting out
	4 th	2.4 Setting out of circular
	5 th	curve by chain and tape and by instrument angular methods
	6 th	
4th	1 st	contd.
	2 nd	2.5 Obstacles in curve ranging – point of intersection inaccessible
	3 rd	BASICS ON SCALE AND BASICS OF MAP: 3.1 Fractional or Ratio Scale, Linear Scale, Graphical Scale
	4 th	contd.
	5 th	3.2 What is Map, Map Scale and Map Projections
	6 th	
	1 st	3.3 How Maps Convey Location and Extent
	2 nd	3.4 How Maps Convey characteristics of features
	3 rd	3.5 How Maps Convey Spatial Relationship

5th	4 th	3.5.1 Classification of Maps 3.5.1 Physical Map 3.5.2 Topographic Map 3.5.3 Road Map 3.5.4 Political Map 3.5.5 Economic & Resources Map 3.5.6 Thematic Map 3.5.7 Climate Map
	5 th	contd.
	6 th	
6th	1 st	SURVEY OF INDIA MAP SERIES: 4.1 Open Series map
	2 nd	contd.
	3 rd	4.2 Defense Series Map
	4 th	4.3 Map Nomenclature
	5 th	4.3.1 Quadrangle Name
	6 th	
7th	1 st	4.3.2 Latitude, Longitude, UTM's
	2 nd	4.3.4 Contour Lines
	3 rd	4.3.5 Magnetic Declination
	4 th	4.3.6 Public Land Survey System
	5 th	4.3.7 Field Notes
	6 th	
8th	1 st	5.1 Aerial Photography: 5.1.1 Film, Focal Length, Scale 5.1.2 Types of Aerial Photographs (Oblique, Straight)
	2 nd	contd.
	3 rd	5.2 Photogrammetry: 5.2.1 Classification of Photogrammetry 5.2.2 Aerial Photogrammetry 5.2.3 Terrestrial Photogrammetry
	4 th	contd.
	5 th	contd.
	6 th	
9th	1 st	5.3 Photogrammetry Process: 5.3.1 Acquisition of Imagery using aerial and satellite platform 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
	2 nd	contd.
	3 rd	contd.
	4 th	5.4 DTM/DEM Generation
	5 th	5.5 Ortho Image Generation
	6 th	
10th	1 st	MODERN SURVEYING METHODS : 6.1 Principles, features and use of (i) Micro-optic theodolite, digital theodolite
	2 nd	contd.
	3 rd	6.2 Working principles of a Total Station

	4 th	contd.
	5 th	contd.
	6 th	
11th	1 st	Set up and use of total station to measure angles
	2 nd	contd.
	3 rd	contd.
	4 th	X,Y & Z or northing, easting, and elevation
	5 th	contd.
	6 th	
12th	1 st	BASICS ON GPS & DGPS AND ETS: 7.1 GPS: - Global Positioning
	2 nd	7.1.1 Working Principle of GPS,GPS Signals,
	3 rd	7.1.2 Errors of GPS,Positioning Methods
	4 th	7.2 DGPS: - Differential Global Positioning System
	5 th	7.2.1 Base Station Setup
	6 th	
13th	1 st	contd.
	2 nd	contd.
	3 rd	contd.
	4 th	7.3 ETS: - Electronic Total Station
	5 th	contd.
	6 th	
14th	1 st	8.1 Components of GIS, Integration of Spatial and Attribute Information
	2 nd	8.2 Three Views of Information System
	3 rd	8.3 Spatial Data Model
	4 th	8.4 Attribute Data Management and Metadata Concept
	5 th	8.5 Prepare data and adding to Arc Map.
	6 th	
15th	1 st	8.6 Organizing data as layers.
	2 nd	8.7 Editing the layers. 8.8 Switching to Layout View.
	3 rd	8.9 Change page orientation. 8.10 Removing Borders.
	4 th	8.11 Adding and editing map information.
	5 th	8.12 Finalize the map
	6 th	

Santosh K. Mahanand
Signature of faculty member


counter signature of HOD