NM INSTITUTE OF ENGINEERING & TECHNOLOGY BHUBANESWAR

CIVIL Engineering Department



LESSON PLAN

Semester: 6TH

Subject: LAND SURVEY II

Faculty Name: SANGRAM KESHRI JENA

No of Days/per week class allotted: 4

Semester from date: to date: No. of Weeks: 15

Subject: LAND SURVEY II

Week	Class Day	Theory topics
1	1	Principles, stadia constants determination
	2	2 Stadia tacheometry with staff held vertical and
	3	with line of collimation horizontal or inclined
	4	numerical problems
2	1	compound
	2	reverse and transition curve
	3	Purpose & use of different types of curves in field
	4	Elements of circular curves
3	1	numerical problems
	2	Preparation of curve table for setting out
	3	Setting out of circular curve by chain
	4	tape and by instrument angular
4	1	offsets from long chord
	2	successive bisection of arc
	3	offsets from tangents
	4	offsets from chord produced
5	1	Rankine's method of tangent angles (No derivation)
	2	Obstacles in curve ranging –
	3	point of intersection inaccessible
	4	Fractional or Ratio Scale
6	1	Linear Scale, Graphical Scale
	2	What is Map
	3	Map Scale and Map Projections
	4	How Maps Convey Location and Extent
7	1	How Maps Convey characteristics of features
	2	How Maps Convey Spatial Relationship
	3	Classification of Maps
	4	Physical Map

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Week	Class Day	Theory topics
8	1	Topographic Map
	2	Road Map
	3	Political Map
	4	Economic & Resources Map
9	1	Thematic Map
	2	Climate Map
	3	Open Series map
	4	Defense Series Map
10	1	Map Nomenclature
	2	Quadrangle Name
	3	Latitude, Longitude, UTM's
	4	Contour Lines
11	1	Magnetic Declination
	2	Public Land Survey System
	3	Field Notes
	4	Film, Focal Length, Scale
12	1	Geometric Distortion in Imagery
	2	Types of Aerial Photographs
	3	Classification of Photogrammetry
	4	Aerial Photogrammetry
13	1	Terrestrial Photogrammetry
	2	Acquisition of Imagery using aerial and satellite platform
	3	Application of Imagery and its support data
	4	Orientation and Triangulation
14	1	Stereoscopic Measurement
	2	X-parallax
	3	Y-parallax
	4	DTM/DEM Generation
15	1	Ortho Image Generation
	2	Principles, features and use of (i) Micro-optic theodolite
	3	digital theodolite
	4	Working principles of a Total Station