

PADMASHREE KRUTARTHA ACHARYA INSTITUTE OF
ENGINEERING & TECHNOLOGY, BARGARH



LESSON PLAN
Session-2022-2023

Discipline: CIVIL ENGINEERING Engg. Semester: 6th

Name of the Teaching Faculty: SASWAT SUMAN SHARMA

LAND SURVEY-I

Subject: LAND SURVEY-IINo. of Days/per week class allotted 5Semester From Date: 14-02-2023To Date: 03-05-2023No. of Weeks: 15

Week	Class Day	Theory /Practical Topics
1 st	1	Introduction to tacheometry
	2	Principle of tacheometry, stadia constant
	3	Stadia tacheometry with vertical staff
	4	Stadia tacheometry with horizontal/inclined staff
	5	Numericals.
2 nd	1	Methods to determine Elevation & distance
	2	Numericals
	3	Understanding curves.
	4	Compound, Reverse and transition curve.
	5	Purpose & different types of curve
3 rd	1	Elements of circular curve, Numericals.
	2	Preparation of curve table & Setting out

Susmita Shrestha
Signature of the Faculty

Subject: LAND SURVEY - II No. of Days/per week class allotted 5

Semester From Date : 14.02.2023 To Date : 23.05.2023 No. of Weeks : 15

Week	Class Day	Theory /Practical Topics
	3	Setting out by offsets and successive bisections
	4	Offsets from chords produces, Rankine method.
	5	Obstacles during curve ranging
4 th	1	Fractional & Ratio scale, Graphical scale.
	2	Map scales and projections.
	3	How maps convey location & Extent.
	4	Maps convey spatial relationship
	5	Classification of maps.
5 th	1	Understanding variety of maps.
	2	Physical, Topographical maps etc.
	3	Open Series Maps.
	4	Significance of open series maps.

Saswat Kumar Sharma,
Signature of the Faculty

Subject: LAND SURVEY - IINo. of Days/per week class allotted 5Semester From Date : 14.02.2023 To Date : 23.05.2023 No. of Weeks : 15

Week	Class Day	Theory /Practical Topics
	5	Defense Series Maps.
6 th	1	Significance of defense series maps.
	2	Map Nomenclature
	3	Quadrantal Name, Latitude & Longitude
	4	UTM's and Contour lines.
	5	Public Land Survey and field notes
7 th	1	Magnetic Declinations
	2	Significance of magnetic declination.
	3	Aerial photogrammetry
	4	Types of aerial photogrammetry
	5	Classification of photogrammetry.
8 th	1	Aerial & Terrestrial photogrammetry.

Saswat Sumon Sharma
Signature of the Faculty



Subject: LAND SURVEY-II No. of Days/per week class allotted 5

Semester From Date : 14.02.2023 To Date : 31.05.2023 No. of Weeks : 15

Week	Class Day	Theory /Practical Topics
	2	Photogrammetry Process (Acquisitions)
	3	Control Survey, Geometric distortion
	4	Orientation & triangulation
	5	Imagery & support data.
9 th	1	DTM Generation
	2	DEM Generation
	3	Ortho image Generation
	4	Introduction to modern Surveying
	5	Working principle of modern Equipment
10 th	1	Micro-optics & digital theodolite
	2	Working principle of total station
	3	Distances of points under survey from T.S

Saswat Kumar Sharma
Signature of the Faculty

Subject: LAND SURVEY - IINo. of Days/per week class allotted 5Semester From Date: 14.02.2023To Date: 30.05.2023No. of Weeks: 15

Week	Class Day	Theory / Practical Topics
	4	Setting up X, Y, Z axis, Northing, Easting
	5	Setting up the Elevation.
11 th	1	Using trigonometrical Method.
	2	Using triangulation method.
	3	Introduction to GPS.
	4	Working principle of GPS.
	5	Signals, Errors and Positioning Methods.
12 th	1	Introduction of DGPS.
	2	Base station Setup, GPS Setup.
	3	Post processing and Export GPS Data.
	4	Flash cards, Sequence for time tags to file
	5	Sequence to download and Export data.

Saswat Sumon Sharma
Signature of the Faculty

Subject: LAND SURVEY-II No. of Days/per week class allotted 5

Semester From Date : 14.02.2023 To Date : 23.05.2023 No. of Weeks : 15

Week	Class Day	Theory /Practical Topics
13 th	1	Introduction to Electronic total Station
	2	Angle Measurement, Levelling, Position determination
	3	Reference works - Errors and Accuracy
	4	Components of GIS
	5	Integration of spatial & Attribute Info
14 th	1	3 Views of Information Concepts.
	2	Table view, Map view & Model view.
	3	Spatial Data Modelling.
	4	Attribute data Management.
	5	Metadata concepts.
15 th	1	Preparing data & organizing as layers.
	2	Organizing & Editing of layers.

Sarwat Sumran Sharma
Signature of the Faculty

