

MAHAMAYA INSTITUTE OF MEDICAL AND TECHNICAL SCIENCE,
NUAPADA

LESSON PLAN

Discipline : <u>Land Surveying</u>		Semester : <u>4th</u>	Name of the Teaching Faculty : <u>Prasanna Babu</u>
Subject : <u>Surveying</u>		No. of Days / per week class allotted : <u>5</u>	Semester From date : <u>10-03-2022 to 10-06-2022</u>
Week		Class Day	No. of Weeks : <u>16</u>
2nd MARCH		1st	Introduction of land survey - I. Aim and objective. Principles of surveying.
		2nd	
		3rd	
		4th	
		5th	
3rd MARCH		1st	Classification of surveying instruments & uses for measuring distance. Types of chains and tapes. Errors and mistakes in linear measurement sources of errors and remedies.
		2nd	
		3rd	
		4th	
		5th	
4th MARCH		1st	Corrections to measured lengths due to incorrect length, chaining and chain surveying, Accrues error ranging - direct and indirect ranging. Link & ranges & features and uses of chaining methods.
		2nd	
		3rd	
		4th	
		5th	
5th MARCH		1st	Setting perpendicular with chain and tape. Purpose of chain surveying, Principles of compass surveying & angular measurement angles with chain and tape.
		2nd	
		3rd	
		4th	
		5th	

1ST APRIL	1st	Types of Compass, Features, Parts
	2nd	Designation of angles.
	3rd	Concept of Bearings.
	4th	Use of Compass, FB and BB.
	5th	Effects of earth's magnetism.

2ND APRIL	1st	Errors in angle measurement with compass
	2nd	Principles of traversing
	3rd	Methods of traversing
	4th	Local Attraction, Errors in compass surveying
	5th	Problem solving

3RD APRIL	1st	Map Reading, Cadastral Map
	2nd	Scale, study of direction, Grid square.
	3rd	Study of signs and symbols.
	4th	Cadastral map preparation methodology
	5th	Unique identification Number of parcel

4TH APRIL	1st	Positions of existing control points and
	2nd	Types, Adjacent Boundaries and features.
	3rd	Plane table levelling - objectives
	4th	Principles and uses of Plane table levelling
	5th	Instruments and accessories.

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5TH APRIL	1st	Methods of Plane table traversing
	2nd	Traversing, Resection.
	3rd	Two-Point Problems
	4th	Three-Point Problems
	5th	Errors and Corrections.
1ST MAY	1st	Theodolite traversing - Traverse definitions.
	2nd	Types - Transit and Non-transit.
	3rd	Transit Theodolite - Parts, Features.
	4th	Reading a vernier, Temporary adjustment
	5th	Concept of Transiting - Horizontal & Vertical
2ND MAY	1st	measuring of magnetic bearing deflection angle
	2nd	setting out angles, errors in theodolite.
	3rd	open and close traverse.
	4th	Problem Solving.
	5th	Traverse. Computation - Latitude, departure
3RD MAY	1st	Gale's traverse table, Problem solving
	2nd	Closing errors, adjustment of bearings
	3rd	Problem Solving.
	4th	Balancing of traverse, Bessel's method

SCIENCE,

Discipline: Surveying
 Subject: Levelling
 2nd MAP
 3rd

	1st	2nd	3rd	4th	5th
4TH MAY	1st	Leveling - Defn, purpose, types			
	2nd	P.L. BM, datum, horizontal surface			
	3rd	Instruments used for leveling.			
	4th	Leveling staff			
	5th	B.S, I.S, F.S, CP, HI			
5TH MAY	1st	Field data entry. Level Book.			
	2nd	Aritmetic checks - Problem solving			
	3rd	Effects of curvature and refraction			
	4th	Problems solving			
	5th	Reciprocal leveling - Methods			
1ST JUNE	1st	Errors in leveling and precautions			
	2nd	Concluding - Methods, Concepts			
	3rd	Use of Contour maps on civil projects.			
	4th	Computation of volume of earthwork			
	5th	Map Interpretation.			
2ND JUNE	1st	Computation of area and volume			
	2nd	Calculation of area by using ordinate rule			
	3rd	Simpson's Rule, Trapezoidal rule			
	4th	Calculation of volume by Prismoidal formula			
	5th	Trapezoidal formula, Problem solving			

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