## Lesson plan

<b>Discipline:</b> Civil Engg.	Semester: fourth (4 <sup>th</sup> )	Name of the Lab I/C:Er Malaya Ranjan Sahu / Er Jagat Jyoti Puntia
Subject: Survey Practice-1	No. of days/week class allotted: Six (6)	Semester from Date: 14.02.23 to Date: 23.05.23 No. of Weeks: 15
WEEK	CLASS DAY	PRACTICAL EXPERIMENTS
st 1	1 <sup>st</sup>	Testing and adjusting of a metric chain.
	2 <sup>nd</sup>	
	3 <sup>rd</sup>	
	4th	
	5th	
	6th	Review class
	1 <sup>st</sup>	Measurement of distance between two points (more than 2 chain lengths apart) with chain including direct ranging
	2 <sup>nd</sup>	
$\overset{ ext{nd}}{2}$	3 <sup>rd</sup>	
2	4th	
	5th	
	6th	Review class
	1 <sup>st</sup>	Measurement of distance by chaining across a obstacles on the chain line i) a pond ii)a building iii) a stream/ river (in the event of non-availability of stream / river, a pond or lake may be taken, considering that chaining around the same is not possible.
	2 <sup>nd</sup>	
$3^{ m rd}$	3 <sup>rd</sup>	
3	4th	
	5th	
	6th	Review class
4 <sup>th</sup>	st 1	Setting perpendicular offsets to various objects (at least 3) from a chain line using-(1) tape, (2) cross-staff Setting oblique offsets to objects (at least 3) from a chain using tape,
	2 <sup>nd</sup>	
	3 <sup>rd</sup>	
	4th	
	5th	
	6th	Review class

	st 1	
		Testing and adjustment of Prismatic compass
	2 <sup>nd</sup>	and Surveyor's compass
5 <sup>th</sup>	3 <sup>rd</sup>	
	4th	
	5th	
	6th	Review class
	st 1	
	2 <sup>nd</sup>	
		Measurement of bearings of lines (at least 3 lines) and determination of included angles
6 <sup>th</sup>	3 <sup>rd</sup>	using Prismatic compass
	4th	
	5th	
	6th	Review class
	1 <sup>st</sup>	Study of direction, Scale, Grid Reference and Grid Square Study of Signs and Symbols.
	2 <sup>nd</sup>	
	3 <sup>rd</sup>	
$7^{\mathrm{th}}$	4th	
	5th	
	6th	
		Review class
	st 1	— Setting up of Plane Table and Plotting five points by radiation method
	2 <sup>nd</sup>	
	3 <sup>rd</sup>	
8 <sup>th</sup>	4th	
	5th	
	6th	
		Review class
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9 <sup>th</sup>	1 st 1 2 nd 2 nd 3 rd 3 4th 5th 6th	Conducting Plane Table Surveying In a given plot of Area By Traversing(at least a 5 sides traverse and locating the objects)  Review class
$10^{ m th}$	1 st 1 2 nd 2 nd 3 rd 3 4th 5th 6th	Study of essential features and parts of transits theodolite to describe the theodolite with sketches  Review class
11 <sup>th</sup>	1 st 1 2 nd 2 st 3 st 4th 5th	Making temporary adjustments of Levels
12th	6th  1  2  nd  2  3  4th  5th	Review class.  Determining Reduced Levels of five given points taking staff readings with Levels
13 <sup>th</sup>	6th  1  2  1  2  3  4th	Review class  Determining the difference of levels between two points (3 pairs of points / group) by taking staff readings form single set up of level, recording the readings in level book and Application of Arithmetic check. (At least 3 change points must be covered)

	5th	
	6th	Review class.
	1 st	Conduct profile leveling along the given alignment for a road / canal for 150m length,
14 <sup>th</sup>	2 <sup>nd</sup>	taking L. S. at every 15m and C. S. at 1m & 3m
	3 <sup>rd</sup>	apart on both sides at every 30m interval and recording the data in level book and applying
	4th	arithmetical check
	5th	
	6th	Review class.
	1 <sup>st</sup>	
15 <sup>th</sup>	2 <sup>nd</sup>	
	3 <sup>rd</sup>	Review class.
	4th	
	5th	
	6th	Review class.