

Discipline	Semester	Name of the Teacher/faculty
Minors Engg.	3 <sup>rd</sup>	Monalisa Rout.
Subject	No. of Days Per week class allotted	Semester From date: 15/09/2022 To date: 21/11/2023
THD	04	No. of weeks - 15
Week	Class/Days	Theory
1 <sup>st</sup>		
Chain survey	1 <sup>st</sup>	Survey conventional signs, abbreviation used, standards of lining,inking and coloring
	2 <sup>nd</sup>	selection of scales used
	3 <sup>rd</sup>	principle of chain surveying, instruments used and checking their correctness
	4 <sup>th</sup>	ranging and chaining of a line, calculating errors in chaining
2 <sup>nd</sup>		
	1 <sup>st</sup>	obstruction while chaining
	2 <sup>nd</sup>	chaining along a sloping ground
	3 <sup>rd</sup>	Use of optical square and line range are checking optical square box correctness
	4 <sup>th</sup>	Description of offsets and their measurements
3 <sup>rd</sup>		
	1 <sup>st</sup>	Reference sketches of stations, Procedure of chain surveying
	2 <sup>nd</sup>	field booking and plotting of chain survey.

	3 <sup>rd</sup>	prismatic compass, its adjustments and use. True meridians, Magnetic Meridian, Grid line meridian and arbitrary meridian
	4 <sup>th</sup>	w.c.B and Q.B and conversion from one to other
4 <sup>th</sup>	1 <sup>st</sup>	Fore and back bearing and their conversion angles from bearing and bearing angles
	2 <sup>nd</sup>	Local attraction, Local attraction and necessary correction to the bearing.
	3 <sup>rd</sup>	closed and open compass surveys and its plotting
	4 <sup>th</sup>	procedure of field booking in compass and chain traverses.
5 <sup>th</sup>	1 <sup>st</sup>	Adjustment of closing error in compass traversing
	2 <sup>nd</sup>	Surveyor's compass (miner's dial) its adjustment and use, compass prismatic compass with surveyor compass.
Plane table survey	3 <sup>rd</sup>	Fundamentals of plane table survey
	4 <sup>th</sup>	
6 <sup>th</sup>	1 <sup>st</sup>	Two Point Problems explain
	2 <sup>nd</sup>	

	3 <sup>rd</sup>	Three Point Problem
	4 <sup>th</sup>	H's sol <sup>n</sup> by tracing paper method
2 <sup>nd</sup>	1 <sup>st</sup>	Advantages and disadvantages of plane table
	2 <sup>nd</sup>	-do-
computation of areas	3 <sup>rd</sup>	Methods of determining areas
	4 <sup>th</sup>	-do-
2 <sup>nd</sup>	1 <sup>st</sup>	Areas from offset to a base line using Mid ordinate rule
	2 <sup>nd</sup>	Areas from offset to a base line using Average ordinate rule
	3 <sup>rd</sup>	Areas from offset to a base line using Trapezoidal rule
	4 <sup>th</sup>	Areas from offset to a base line using Simpson's rule
2 <sup>nd</sup>	1 <sup>st</sup>	Compute area by planimeter and from graph paper
	2 <sup>nd</sup>	-do-
leveling	3 <sup>rd</sup>	Definition of benchmark M.S.L Dumpy level
	4 <sup>th</sup>	Adjust dumpy level, modern levels, and precise staff.



10 <sup>th</sup>	1 <sup>st</sup>	Method of leveling
	2 <sup>nd</sup>	Errors in ordinary leveling
	3 <sup>rd</sup>	Reciprocal leveling
	4 <sup>th</sup>	subsidence leveling
11 <sup>th</sup>	1 <sup>st</sup>	setting out gradient
	2 <sup>nd</sup>	trigonometric leveling
	3 <sup>rd</sup>	Geometrical leveling
	4 <sup>th</sup>	physical leveling
12 <sup>th</sup>	1 <sup>st</sup>	Classification of reserves
	2 <sup>nd</sup>	-do-
	3 <sup>rd</sup>	Evaluation of reserves by exploratory
	4 <sup>th</sup>	-do-
13 <sup>th</sup>	1 <sup>st</sup>	Calculation of primary ore by material balance method
	2 <sup>nd</sup>	-do-
	3 <sup>rd</sup>	Calculation of primary ore by decline curve method
	4 <sup>th</sup>	-do-

14<sup>th</sup>  
Theodolite1<sup>st</sup>

Temporary adjustment of Theodolite

2<sup>nd</sup>

Permanent adjustment of Theodolite

3<sup>rd</sup>

The principles of operation

4<sup>th</sup>

Different parts of Theodolite

15<sup>th</sup>1<sup>st</sup>

Measuring of Horizontal angles

2<sup>nd</sup>

Measuring of vertical angles

3<sup>rd</sup>

Setting of the instrument

4<sup>th</sup>

Explanation of Traversing with Theodolite.

~~Sum~~  
~~20~~  
~~15/9/2022~~