

Lesson Planning (Practical)

Branch : Civil Engineering

Semester : 3rd

Subject : Basic Surveying Lab

Session : August-December 2026

Teacher: Er. Rana Kunal

S.No.	No. of WEEKS	Chapter/ Unit Description	Detail of Contents	Remarks
1	Week 1	Practical 1	Measure distance between two survey stations using chain, tape and ranging rods when two stations are inter-visible.	
2	Week 2			
3	Week 3	Practical 2 Practical 3	- Undertake reciprocal ranging and measure the distance between two stations. - Determine area of open field using chain and cross staff survey.	
4	Week 4	Practical 4	Measure Fore Bearing and Back Bearing of survey lines of open traverse using Prismatic Compass.	
5	Week 5	Practical 5	Measure Fore Bearing and back bearing of a closed traverse of 5 or 6 sides and correct the bearings and included angles for the local attraction.	
6	Week 6	Practical 6 Practical 7	- Undertake Survey Project with chain and compass for closed traverse for minimum 5 sides around a building. - Plot the traverse on A1 size imperial drawing sheet for data collected in Survey Project mentioned at practical No.6.	
7	Week 7	Practical 8	Undertake simple levelling using dumpy level/ Auto level and levelling staff.	
8	Week 8	Practical 9	Undertake differential levelling and determine Reduced Levels by Height of instrument method and Rise and fall method using dumpy level/Auto Level and levelling staff.	
9	Week 9	Practical 10	Undertake fly levelling with double check using dumpy level/ Auto level and levelling staff.	
10	Week 10	Practical 11	Undertake Survey Project with Levelling instrument for Profile levelling and cross- sectioning for a road with cross-section.	
11	Week 11	Practical 12	Plot the L-section with minimum 3 cross-sections on A1 size imperial sheet for data collected in Survey Project mentioned at practical No.11.	
12	Week 12	Practical 13	Undertake Survey Project for plotting contour map using block contouring method for a block of 150m x 150m with grid of 10m x 10m.	
13	Week 13	Practical 14	Plot the contours on A1 size imperial drawing sheet for data collected in Survey Project mentioned at practical No.13.	
14	Week 14	Practical 15	Measure area of irregular figure using Digital planimeter.	

Signature of Teacher

Signature of H.O.D/OIC

