

CVX4342 Surveying I

Level	4
Course Code	CVX4342
Course Title	Surveying I
Credit value	3
Core/Optional	Core (Civil Engineering)
Course Aim/s	To provide knowledge of basic theories relating to the Surveying and apply them in real world scenarios.
Course Learning Outcomes (CLO):	<p>At the completion of this course student will be able to:</p> <p>CLO1: Identify theories involved in basic surveying activities (Multi Structural)</p> <p>CLO2: Carry out the surveying fieldwork and record the data effectively. (Multi Structural)</p> <p>CLO3: Illustrate the knowledge about office work of the surveying including calculating and plotting. (Multi Structural)</p> <p>CLO4: Use the theoretical and practical knowledge of the surveying to analyse the Civil Engineering applications.(Multi Structural)</p>
Content (Main topics, sub topics)	<p>Outline Syllabus:</p> <p>Unit 1: Basic Surveying Methods (Chain Surveying) Session 01: An Introduction to Surveying and Levelling Session 02: Chain Surveying 1 Session 03: Chain Surveying 2 Session 04: Chain Surveying 3 Session 05: Errors in Chaining and Measurement with Steel Band</p> <p>Unit 2: Introduction to Level Tube, Vernier and the Theodolite Session 06: The Level Tube and the Vernier Session 07: The Theodolite Session 08: Theodolite - Its Use and Adjustments</p> <p>Unit 3: Basic Surveying Methods (Traverse Surveying) Session 09: The Compass and Compass Traversing Session 10: Theodolite Traversing and Computation and Adjustment of Traverse Surveys Session 11: Plane Table Surveying</p> <p>Unit 4: Level Surveying Session 12: Levelling 1 Session 13: Levelling 2 Session 14: Levelling 3</p> <p>Unit 5: Contour surveying Session 15: Contours Session 16: Tachometric Surveying I Session 17: Tachometric Surveying II</p> <p>Unit 6: Areas and Volumes Session 18: Measurements of Areas Session 19: Measurements of Volumes</p> <p>Field work</p> <ol style="list-style-type: none"> 1. Perform fieldwork to identify instruments and Surveying practices of Chain Surveying 2. Perform fieldwork to identify instruments and Surveying practices of Levelling. Perform fieldwork to identify instruments and Surveying practices of Traversing (Theodolite Surveying)