ARC 111: Architectural Graphics and Descriptive Geometry I (3 Units)

Department of Architecture

Covenant University
1. ARC111
1.1. ARC 111: Architectural Graphics and Descriptive Geometry I (3 Units)

The Course introduces the students to the basic elements of architectural graphics. The course objectives are to equip the student with the knowledge of the correct use of drawing instruments, equipment and materials; and also empower them to construct basic angles and plane geometry.

MODULE 1: Introduction to Drawing Instruments, Equipment and Materials- Descriptions, Uses and Care of drawing instruments, equipment and materials; Use of Scale Rules and Set Squares. MODULE 2: Points and Lines-Definition of Points, Line Types, Uses, Dimensioning types.

MODULE 3: Architectural Presentation Formats-Letterings, Common Errors, Title Blocks, Presentation Formats, Paper Sizes. MODULE 4 Areas and Perimeters of Plane Shapes- Rectangles, Triangles, Squares, Circles, Polygons, Trapeziums. (Constructions given different data), Circles (The Parts, Inscribing/Escribing, and Internal).

MODULE 5: Plane Geometry- Lines (Bisection, Perpendiculars, Equal and Proportional Divisions), Angles (Different types, bisections and basic construction), Triangles (Different types and various External Tangents), Quadrilaterals (Types, Constructions given different data), Polygons (Types, Constructions, and General Construction Methods), Ellipses (Constructions using different methods), Scales (Construction of Plain and Diagonal scales).

Basic Principles of Orthographic Projection: (Conversion of Pictorial to Orthography), First and Third Angle Projections, Exercises.