

CVX4349 Building Engineering

Level	4
Course Code	CVX4349
Course Title	Building Engineering
Credit value	3
Core/Optional	Elective (Civil Engineering)
Course Aim/s	To provide students a general overview and essential aspects associated with Building Engineering
Course Learning Outcomes (CLO):	<p>At the completion of this course student will be able to:</p> <p>CLO1: Identify the main structural elements and space allocation of a building; Familiarize with the processes involved in a building project. [Multi-structural]</p> <p>CLO2: Familiarize with components of buildings and some important aspects of alternative components of buildings and construction methods. [Uni-structural]</p> <p>CLO3: Compare different methods of distribution of water and identify the different types of pipes and valves used in house connections and plumbing. [Multi-structural]</p> <p>CLO4: Understand various solid waste, surface water and sewerage disposal facilities. [Uni-structural]</p> <p>CLO5: Identify how to generate, transmit and install electricity in small buildings; identify the requirements and methods for protection against electric shock. [Multi-structural]</p> <p>CLO6: Design lighting requirements for building and interpret the conditions applicable to moist air in buildings and evaluate the capacity of plant required for a given air handling operation. [Relational]</p>
Content (Main topics, sub topics)	<p>Outline Syllabus:</p> <p>Unit 1: Building Management Session 01: Introduction to Building Engineering Session 02: The project life cycle Session 03: Types of Buildings and Building Elements Session 04: Space and Spatial Hierarchies Session 05: Client Requirements Session 06: The Site and its selection Session 07: Presentation of the Scheme Design</p> <p>Unit 2: Building Constructions Session 08: Masonry work Session 09: Foundations Session 10: Finishes to floors, plastering and roofs Session 11: Roof gutters, doors & windows</p> <p>Unit 3: Building Services Session 12: Introduction Session 13: Water Supply Session 14: Distribution of Water Session 15: House Connections & Plumbing Session 16: Sanitary Connections and Fixtures Session 17: Conventional Sewerage and Disposal Methods Session 18: On-site Sanitation for Buildings Session 19: Refuse Disposal - Garbage and other Wastes Session 20: House Drainage and Drainage Installation for Small Building Schemes</p> <p>Unit 4: Electrical Supply in Building Session 21: Fundamentals of Electricity Supply for Buildings Session 22: Regulations governing Electricity Supply in Sri Lanka Session 23: Safety in Electrical Installations Session 24: Over current Protection in the use of Electricity</p>

	<p>Session 25: Shock Protection in the use of Electricity Session 26: Electrical Installations for Small Buildings Session 27: Inspection and Testing of Electrical Installations Unit 5: Lighting & Air Conditioning Session 28: Lighting Requirements for Buildings Session 29: Psychrometric Considerations for Buildings</p> <p>Field Visit:</p> <ol style="list-style-type: none">1. Visit a building construction project to identify the processes involved and key players of a building project, figure out the structural elements of a building and to familiarize with the building services required.
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