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Fundamentals of Building Planning

Course Objective

This course is designed to provide participants with a strong foundation in building planning concepts applicable worldwide. Through a mix of theoretical lessons and hands-on freehand sketching exercises, learners will develop the skills to create functional, compliant, and sustainable building plans adaptable to any region.

Course Outcome

By the end of this course, participants will:

- Understand core principles of building planning and design.
- Apply global building standards and adaptable guidelines.
- Develop freehand sketches for layouts, zoning, and sections.
- Integrate sustainability, accessibility, and Vastu principles into plans.
- Communicate ideas effectively through professional documentation..

Prerequisites

This course is designed for beginners. However, learners are expected to have:

- Basic familiarity with architectural or design concepts is helpful but not mandatory.
- Interest in architecture, interior design, or related fields.

Course Outline

The course comprises **24-hours** of theory and is divided into **8** different modules.

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Module 1: Introduction to Building Planning (2 Hours)

- Importance and Applications of Building Planning
- Overview of the Planning Process: Concept to Construction
- Key Considerations: Functionality, Aesthetics, and Sustainability
- **Activity:** Freehand sketch of a simple site plan with zoning allocation

Module 2: Building Orientation (2 Hours)

- Factors Influencing Orientation: Climate, Sun Path, and Wind Direction
- Impacts on Comfort, Ventilation, and Energy Efficiency
- Case Studies: Orientation in Different Climates
- **Activity:** Sketch an ideal orientation layout for a given site and climate

Module 3: Principles of Building Planning (4 Hours)

- Universal Principles:
  - Functional Efficiency and Space Optimization
  - Aesthetics and User-Centric Design
  - Structural Integrity and Durability
- Practical Examples:
  - Balancing Client Requirements with Design Principles
  - Identifying and Avoiding Common Planning Errors
- **Activity:** Develop a freehand floor plan for a compact residence with zoning

Module 4: Understanding Building Byelaws and Guidelines (4 Hours)

- Purpose of Byelaws and Guidelines: Safety, Functionality, and Sustainability
- Global Applicability:
  - Setbacks, Zoning Laws, and FAR
  - Height Restrictions and Occupancy Limits
  - Fire Safety, Accessibility Standards, and Environmental Compliance
- International Standards and Frameworks:
  - International Building Code (IBC)

  - ISO Standards (e.g., ISO 21542 for Accessibility)
  - Green Building Certifications (LEED, BREEAM)
- Adaptability to Local Contexts:
  - Researching Regional Regulations
  - Interpreting Zoning Maps and Building Permit Processes
  - Case Studies on Local and Global Compliance
- **Activity:** Sketch a compliant layout incorporating setbacks, zoning, and FAR

Module 5: Planning Residential and Commercial Spaces (4 Hours)

- Residential Spaces:
  - Space Allocation: Living, Sleeping, and Utility Areas
  - Standard Room Dimensions and Layout Optimization
- Commercial Spaces:
  - Space Planning for Offices, Retail, and Public Buildings
  - Circulation and Parking Standards
- Practical Examples: Designing Mixed-Use Developments
- **Activity:** Sketch a compliant layout incorporating setbacks, zoning, and FAR

Module 6: Interior Planning Fundamentals (3 Hours)

- Space Planning for Interiors:
  - Standard Furniture Dimensions and Placement
  - Designing Efficient Kitchens, Toilets, and Storage Spaces
- Symbols in Technical Drawings: Materials, Doors, Windows, and Furniture
- Visualizing Interiors Using Plans and Sections
- **Activity:** Sketch a compliant layout incorporating setbacks, zoning, and FAR

Module 7: Sustainability and Vastu Considerations (3 Hours)

- Sustainability Principles:
  - Green Building Strategies for Energy Efficiency
  - Rainwater Harvesting, Solar Panels, and Waste Management

- Vastu Integration:
  - Core Principles of Vastu Shastra in Modern Planning
  - Adapting Vastu Guidelines for Functionality
- **Activity:** Freehand conceptual plan for a sustainable home integrating Vastu principles

Module 8: Construction Documentation and Presentation (2 Hours)

- Key Elements of Construction Drawings: Plans, Sections, and Elevations
- Creating Layouts for Approval Processes
- Best Practices for Client and Stakeholder Presentations
- **Activity:** Sketch a compliant layout incorporating setbacks, zoning, and FAR

Additional Features

- **Interactive Learning:** Group discussions on global building case studies.
- **Daily Assignments:**
  - Assignments aligned with each module for hands-on practice.
  - Submission of scanned sketches for feedback and evaluation.
- **Resource Materials:** Links to international building codes, standards, and examples.
- **Practical Examples:** Comparing byelaws across different countries.