

STRUCTURAL DESIGN FOR NON STRUCTURAL ENGINEERS TRAINING

"Bridging the Gap Between Design Concepts and Structural Reality."

Schedule

Venue (InHouse)	Fees
At Your Organization Premises	Ask For The Quotation

► **Available delivery methods:** In-House Training

Introduction

This course is designed to give non-structural engineers, architects, project managers, and construction professionals a solid understanding of the fundamental principles behind structural design. It demystifies key concepts such as loads, forces, stability, and material behavior, enabling participants to communicate effectively with structural engineers and make informed decisions throughout the project lifecycle. The training combines essential theory with real-world applications to promote collaboration, safety, and efficiency in design and construction.

Objectives

By the end of this course, participants will be able to:

- Understand the basic principles of structural behavior and load transfer.
- Identify different structural systems and their applications.
- Recognize common design considerations for buildings and infrastructure.
- Communicate effectively with structural engineers during design and construction.
- Interpret structural drawings, specifications, and design outputs.
- Appreciate safety, serviceability, and sustainability aspects of structural design.

Why Attend

This course empowers non-structural professionals to engage confidently in structural discussions, review designs critically, and contribute to multidisciplinary project success. It provides the essential knowledge to bridge the communication gap between engineering design and project implementation.

Target Audience

- Mechanical, Electrical, and Civil Engineers (non-structural)
- Architects and Building Designers
- Project Managers and Site Engineers
- Construction Supervisors and Coordinators
- Quantity Surveyors and Estimators
- Government and Municipal Engineers

Individual Benefits

- Improved understanding of structural design fundamentals.
- Ability to review and interpret structural information accurately.
- Enhanced collaboration with design and construction teams.
- Strengthened technical competence and professional confidence.
- Broader perspective on multidisciplinary project coordination.

Organizational Benefits

- Better interdisciplinary communication and project integration.
- Reduced design errors and on-site misunderstandings.
- Improved project quality, safety, and cost-effectiveness.
- Enhanced team knowledge and collaboration between disciplines.

Instructional Methodology

This course will be delivered through:

- Interactive lectures and technical presentations
- Real-world project examples and case studies
- Group discussions and design interpretation exercises
- Visual demonstrations of load paths and structural systems
- Q&A sessions to address participant-specific questions

Course Outline

Day 1: Fundamentals of Structural Design

- Basic concepts of load, stress, and strain
- Types of loads: dead, live, wind, and seismic
- Structural behavior and load transfer mechanisms

Day 2: Structural Systems and Materials

- Overview of concrete, steel, and composite structures
- Beams, columns, slabs, trusses, and frames explained
- Choosing the right structural system for a project

Day 3: Understanding Design and Drawings

- Introduction to design codes and safety factors
- Reading and interpreting structural drawings
- Coordination between architectural and structural plans

Day 4: Practical Aspects of Structural Design

- Common design and construction challenges
- Communication between design and site teams
- Quality control and inspection essentials

Day 5: Case Studies and Project Applications

- Review of real-world projects and lessons learned
- Role of non-structural engineers in successful project delivery
- Final workshop and knowledge assessment

Certification

Participants who complete the program will be awarded a Certificate of Completion in Structural Design for Non-Structural Engineers Training, recognizing their understanding of structural design principles and their ability to contribute effectively to project development and execution.

Why Choose MAWA Events

- **Global Expertise:** More than 17 years of experience in professional training and consulting.
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- **Client-Focused Solutions:** Customized programs designed to achieve your organisation's unique goals.

In-House / Customized Training

Interested in running this course for your team?

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