

## FUNCTIONAL STRUCTURAL GEOLOGY

*"Understanding Geological Structures for Effective Civil and Oil & Gas Applications"*

### Schedule

Date	Venue	Duration	Fees (Online)
21 - 22 Apr 2026	Online	2 Days	USD 700 per delegate
13 - 16 Jul 2026	Online	4 Days	USD 1200 per delegate

► **Available delivery methods:** Face-to-Face & Online Training

### Introduction

Structural geology is a core discipline for civil engineering, mining, and oil & gas industries, enabling professionals to analyze rock formations, fault systems, and subsurface structures. Understanding geological structures is essential for site planning, resource exploration, and risk assessment.

This online training provides participants with the knowledge and tools to interpret geological formations and apply structural analysis in practical scenarios. The course combines theory, case studies, and interactive exercises to help participants understand subsurface geometry, deformation patterns, and their implications for construction, exploration, and resource management.

### Objectives

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

- Understand principles of structural geology and rock mechanics
- Analyze geological formations and structural features
- Interpret subsurface maps, cross-sections, and fault systems
- Apply structural geology knowledge in civil, mining, and oil & gas projects
- Assess geohazards and subsurface risks
- Utilize practical tools and techniques for structural analysis
- Integrate structural insights into project planning and decision-making

## Why Attend

- Gain critical understanding of geological structures for practical applications
- Apply structural geology principles to civil and oil & gas projects
- Improve risk assessment and project planning capabilities
- Learn to interpret geological maps, cross-sections, and data effectively
- Enhance problem-solving and decision-making in engineering and exploration
- Acquire hands-on knowledge through interactive online exercises

## Target Audience

This program is designed for:

- Civil engineers and construction planners
- Geologists, geotechnical engineers, and mining professionals
- Oil & gas exploration and production specialists
- Project managers and planners in infrastructure and resource sectors
- Professionals involved in risk assessment, site investigations, and subsurface analysis

## Individual Benefits

Key competencies that will be developed include:

- Understanding of structural geology concepts and principles
- Skills in interpreting geological maps and subsurface structures
- Ability to assess geohazards and site-specific risks
- Application of structural analysis in project planning
- Improved decision-making based on geological insights
- Knowledge of modern tools and techniques for structural assessment

## Organizational Benefits

Upon completing the training course, participants will demonstrate:

- Improved project planning and risk management
- Better alignment of construction or exploration activities with geological realities
- Reduced operational risks due to geohazards or subsurface uncertainties
- Enhanced decision-making using structural geology data
- Increased efficiency in site investigations and resource planning
- Stronger compliance with engineering and safety standards

## Instructional Methodology

The course follows an interactive online approach combining theory with practice:

- Strategy Briefings – Overview of structural geology principles and applications
- Case Studies – Real-world examples from civil, mining, and oil & gas projects
- Workshops – Interactive exercises on geological mapping, structural interpretation, and fault analysis
- Peer Exchange – Group discussions and problem-solving exercises
- Tools – Templates, diagrams, and software demonstrations for structural analysis

## Course Outline

Detailed Course Outline

Training Hours: 7:30 AM – 3:30 PM Daily Format: 3–4 Learning Modules | Coffee Breaks: 09:30 & 11:15 | Lunch: 01:00 – 02:00

Day 1: Fundamentals of Structural Geology

- Introduction to geological structures and rock types
- Principles of stress, strain, and deformation
- Faults, folds, and fractures
- Mapping and interpretation exercises

Day 2: Applied Structural Analysis

- Cross-section construction and subsurface interpretation
- Assessing geohazards and site risks
- Integration of structural insights into project planning
- Case study exercises and interactive discussion

(For 4-Day July session, additional days cover advanced structural mapping, reservoir structure analysis, seismic interpretation, and practical project simulations.)

## Certification

Participants will receive a Certificate of Completion in Functional Structural Geology, recognizing their competence in analyzing and interpreting geological structures for civil engineering, oil & gas, and resource management applications.

## Why Choose MAWA Events

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