

SLOPING, BENCHING, EMBANKMENTS AND BUNDWALLS TRAINING

“Designing Safe and Stable Earth Structures for Sustainable Projects”

Schedule

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

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

Introduction

This specialized training focuses on the principles, design, and construction practices for sloping, benching, embankments, and bundwalls — critical components in civil, geotechnical, and environmental engineering projects. The course equips participants with practical knowledge and techniques for achieving stability, safety, and compliance in earthworks and containment structures. Through real-world case studies and technical insights, participants will learn how to assess site conditions, manage slope stability, and ensure the integrity of embankments and bundwalls under varying soil and weather conditions.

Objectives

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

- Understand the geotechnical principles behind slope and embankment stability.
- Apply safe sloping and benching methods in excavation and construction.
- Design and maintain stable embankments and bundwalls.
- Evaluate soil behavior, drainage, and erosion control measures.
- Identify and mitigate potential slope failures and geotechnical risks.
- Implement best practices aligned with international safety standards.

Why Attend

This training enhances participants' technical and practical understanding of earth structure stability and safety. It is particularly valuable for professionals working in construction, mining, oil and gas, and infrastructure projects where soil stability is crucial. Attendees will gain the competence to design, inspect, and manage safe slopes, embankments, and containment structures in accordance with industry best practices.

Target Audience

- Civil, Geotechnical, and Structural Engineers
- Site and Project Engineers
- Construction and Safety Supervisors
- Earthworks and Mining Professionals
- Environmental and HSE Officers
- Infrastructure Planners and Consultants

Individual Benefits

- Strong technical foundation in slope stability and embankment design.
- Ability to recognize and prevent slope failure hazards.
- Improved competence in inspection and maintenance of earth structures.

Organizational Benefits

- Enhanced project safety and reduced risk of slope or embankment failure.
- Improved design quality and compliance with regulations.
- Reduced maintenance and remediation costs.
- Strengthened technical expertise and safety culture within the organization.

Instructional Methodology

This course uses a blend of:

- Expert-led lectures and multimedia presentations
- Practical design exercises and group workshops
- Real project case studies and analysis
- Discussions on local and international standards
- Interactive Q&A sessions for problem-solving and experience sharing

Course Outline

Day 1: Introduction to Sloping and Benching

- Principles of slope geometry and excavation stability
- Safe sloping and benching methods for different soil types
- OSHA and international safety guidelines

Day 2: Embankment Design and Construction

- Embankment materials, compaction, and layering techniques
- Settlement, drainage, and erosion control
- Stability analysis and performance monitoring

Day 3: Bundwalls and Containment Structures

- Purpose and design requirements of bundwalls
- Materials selection and impermeability considerations
- Inspection, maintenance, and integrity assessment

Day 4: Slope Stability and Risk Management

- Slope failure mechanisms and remedial measures
- Geotechnical investigation and slope monitoring techniques
- Use of retaining structures, geosynthetics, and drainage systems

Day 5: Case Studies and Best Practices

- Review of successful and failed projects
- Application of software tools for design and analysis
- Practical workshop and participant presentations

Certification

Upon successful completion, participants will be awarded a Certificate of Completion in Sloping, Benching, Embankments and Bundwalls Training, recognizing their advanced knowledge and competence in safe and effective earthwork design and management.

Why Choose MAWA Events

- **Global Expertise:** More than 17 years of experience in professional training and consulting.
- **Industry-Leading Faculty:** Courses delivered by seasoned professionals with hands-on experience.
- **Practical Insights:** Learn to turn theory into actionable strategies for real-world business impact.
- **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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