



**COURSE NUMBER**

FHWA-NHI-132084



**COURSE TITLE**

**Geotechnical Subsurface Exploration - WEB-BASED**

The Subsurface Explorations Web-based Training course will provide transportation engineers with a basic knowledge and understanding of subsurface exploration programs for design and construction of structure foundations, walls, and other geotechnical features. Properly conducted subsurface exploration programs are an essential part of geotechnical engineering, and are a critical step in understanding soil and rock properties necessary for design.

The course covers a range of topics related to subsurface exploration programs including earth materials, subsurface conditions, geophysical methods, drilling methods and equipment, soil and rock sampling methods, in-situ testing, and groundwater investigation. Upon completion of this course, participants will be able to apply basic geotechnical engineering principles and sound geotechnical methods to transportation projects.

**OUTCOMES**

Upon completion of the course, participants will be able to:

- Identify the key geotechnical considerations associated with typical transportation projects
- Describe the recommended process for characterizing subsurface conditions
- Identify the primary types of geophysical methods
- Identify types of drilling methods and equipment
- Identify types of soil and rock sampling methods
- Explain the purpose of in-situ tests and energy-efficiency parameters
- Explain the purpose of doing a groundwater investigation
- Describe minimum guidelines for the geotechnical investigation of both roadway and structure sites

**TARGET AUDIENCE**

The course is intended for transportation engineers and geotechnical specialists who are involved with the planning, design, and construction of surface transportation facilities. The course will be oriented toward those professionals who routinely deal with soils and foundations issues but who may have little theoretical background in soil mechanics or foundation engineering.

**TRAINING LEVEL:** Basic

**FEE:** 2013: \$0 Per Person; 2014: N/A

**LENGTH:** 6 HOURS (CEU: 0 UNITS)

**CLASS SIZE:** MINIMUM: 0; MAXIMUM: 0

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