Learning Objectives

You’ll be able to:

**Understand** key properties of soil, including soil permeability and compressibility.

**Identify** appropriate soil investigation methods.

**Determine** bearing capacity and know how to increase it through draining and compaction.

**Evaluate** slope stability and understand slope failures.

**Examine** slope stabilization methods including reinforcement and improvement.

Review hydraulic and mechanical properties of soils and learn about stress and failure in soils

Discuss soil investigation procedures, and explore geotechnical reports

Examine the bearing capacity of shallow foundations, piers and piles

Understand slope failures and discuss the impact of surface and groundwater

Compare slope stabilization methods, such as unloading and draining

Soil Mechanics, Bearing Capacity and Slope Stabilization

Coraopolis, PA - Wednesday, September 12, 2018

- **Professional Engineers**: 6.5 PDHs
- **Architects**:
  - 6.5 HSW Continuing Ed. Hours
  - 6.5 LA CES HSW PDHs
- **Contractors**:
  - Non-Credit Continuing Ed.

**Continuing Education Credits**

**Soil Investigation and Classification**
- Properties of soil
- Importance of recognizing soil properties
- Formation of soils
- Types of soils

**Soil investigation**
- Site reconnaissance
- Geology and visual observations
- Drilling and boring
- Test pits
- Establishing appropriate investigational methods
- Obtaining and reviewing geotechnical reports

**Reviewing Hydraulic and Mechanical Properties of Soils**
- Soil permeability
- Compressibility of soil
- Soil hydraulics
- Saturation, hydraulic gradient, and conductivity
- Drained and undrained shear strength
- Vertical and lateral earth pressure
- Stress and failure in soils

**Determining and Increasing Bearing Capacity**
- Calculating bearing capacity
- Bearing capacity of shallow foundations
- Bearing capacity of piers and piles
- Increasing bearing capacity
- Draining and compaction
- Soil improvement

**Determining and Increasing Slope Stability**
- Natural and engineered slopes
- Reviewing basic concepts of slope stability
- Understanding slope failures
- Impact of surface water and groundwater
- Examining slope stabilization methods
- Unloading
- Draining and compaction
- Reinforcement
- Soil improvement
Tuition
$279 for individual registration
$259 for three or more simultaneous registrations.
Each registration includes a complimentary continental breakfast and printed seminar manual.

Receive a reduced tuition rate of $101 for individual registration $279 for three or more simultaneous registrations.

Continuing Education Credit Information
This seminar is open to the public and offers 6.5 PDHs to professional engineers and 6.5 HSW continuing education hours to architects and landscape architects in most states, including Pennsylvania engineers and landscape architects. Educators and courses are not subject to pre-appearance in Pennsylvania.

This seminar is approved by the American Institute of Architects for 6.5 HSW Learning Units (Sponsor No. J88S) and BY the Landscape Architecture Continuing Education System for 6.5 HSW PDHs. Only full attendance can be reported to the AIA/CES and LA/CES.

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This course offers a non-credit continuing education opportunity to construction contractors. Attendance will be monitored and attendance certificates will be available after the seminar for most individuals who complete the entire event. Attendance certificates not available at the seminar will be mailed to participants within fifteen business days.

Can't Attend? Order the CD/Manual Package:
An audio recording of this seminar is available for $289 (including shipping). Allow five weeks from the seminar date for delivery. Please refer to specific state licensing rules or certification requirements to determine if this learning method is eligible for continuing education credit.

Handling Ethical Issues in Professional Engineering Practice
Fri., Aug. 3, 2018, 11:00 AM - 12:00 PM CDT
Foundation Damage and Repair
• Structure Loads, Soil Mechanics, Bearing Capacity and Geo-Environmental Hazards
Wed., Aug. 15, 2018, 11:00 AM - 12:30 PM CDT
• Foundation Wall Design and Construction
Wed., Aug. 15, 2018, 1:00 - 2:30 PM CDT
• Assessment of Foundation Slab Damage & Repair Alternatives
Thurs., Aug. 16, 2018, 11:00 AM - 12:30 PM CDT
• Assessment of Foundation-Retaining Wall Damage & Repair Alternatives
Thurs., Aug. 16, 2018, 1:00 - 2:30 PM CDT

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