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.

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

Soil Mechanics, Bearing Capacity and Slope Stabilization

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.

Presented by David Harmanos, P.E., LEED AP

Soil Investigation and Classification

Properties of soil
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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
Examine slope stabilization methods
- Unloading
- Draining and compaction
- Reinforcement
- Soil improvement

Professional Engineers
6.5 PDHs

Architects
6.5 HSW CE. Hours
6.5 AIA HSW Learning Units

Landscape Architects
6.5 HSW Clock Hours
6.5 LA CES HSW PDHs

Contractors
Non-Credit Continuing Ed.
David Harmanos, P.E., LEED AP
Branch Manager at Hillis-Carnes Engineering Associates, Inc.
Mr. Harmanos is a professional engineer with extensive experience in subsurface exploration, soil testing, infiltration testing, geosynthetics, and seismic and advanced analysis. His expertise includes commercial, industrial and institutional foundation design; retaining wall and steep slope design; sinkhole remediation; landfill design; site work; forensic engineering; LEED consulting; and construction quality control/assurance (CQA/QC). Mr. Harmanos is a graduate of Drexel University where he received both his BS and MS degrees in Civil Engineering (Geosynthetics and Geotechnical).

Hillis-Carnes performs geotechnical engineering consulting and laboratory testing services. Its construction services include evaluation of bearing materials, inspection of pile driving, slope inclinometer installation and monitoring, and retaining wall construction observation.

Here's what past attendees had to say about the program and about presenter David Harmanos:

“Dave was very knowledgeable in presentation and provided great examples to represent real practical experiences.”
— Engineer for Henry Civil Contractor

“David was highly knowledgeable and good at explaining all aspects of the material.”
— Mechanical Engineer

Seminar Information

Hilton Garden Inn Fort Washington
530 W. Pennsylvania Ave.
Fort Washington, PA 19034
(215) 646-4637

Tuition
$279 for individual registration
$259 for three or more simultaneous registrations.

Each registration includes a complimentary continental breakfast and printed seminar manual.

How to Register
• Visit us online at www.halfmoonseminars.org
• Mail-in or fax the attached form to 715-835-6066
• Call customer service at 715-835-5900

Cancellations: Cancel at least 48 hours before the start of the seminar (CDT), and receive a full tuition refund, minus a $59 service charge for each registrant. Cancellations within 48 hours will receive a credit toward another seminar or the CD/manual package. You may also send another person to take your place.

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 6.5 HSW clock hours to landscape architects in most states, including Pennsylvania. Educators and courses are not subject to pre-appraisal in Pennsylvania.

This seminar is approved by the American Institute of Architects for 6.5 HSW Learning Units (Sponsor No. 11858) and the Landscape Architecture Continuing Education System for 6.5 HSW PDHs. Only full attendance can be reported to the AIA/CES and LA/CES.

HalfMoon Education is an approved continuing education sponsor for engineers in Florida, Indiana, Maryland, New Jersey (Approval No. 24GP0000700), New York (NYSED Sponsor No. 35), North Carolina, and North Dakota. HalfMoon Education is deemed an approved continuing education sponsor for New York architects and landscape architects.

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.

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.

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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.

Additional Learning

Webinar Series
Community Solar and Rooftop Solar
• Community Solar
  Wed., Sept. 5, 2018, 11:00 AM - 2:15 PM CDT
• Design Your Solar Roof
  Thurs., Sept. 6, 2018, 11:00 AM - 2:15 PM CDT

Seismic Design and Construction
• Seismology and Building Codes
  Wed., Sept. 12, 2018, 11:00 AM - 3:30 PM CDT
• Seismic Design of Building Structures
  Thurs., Sept. 13, 2018, 11:00 AM - 3:30 PM CDT

Small Wind Energy Systems
• Small Wind Energy System Components
  Thurs., Sept. 20, 2018, 11:00 AM - 1:00 PM CDT
• Small Wind Energy Sizing and Siting
  Fri., Sept. 21, 2018, 11:00 AM - 1:00 PM CDT

For more information and other online learning opportunities visit: www.halfmoonseminars.org/webinars/

International Green Construction Code
• Introduction to the International Green Construction Code (IGCC)
  Thurs., Sept. 20, 2018, 11:00 AM - 12:30 PM CDT
• Chapters 4-5: Site Development and Material Use
  Thurs., Sept. 20, 2018, 1:00 - 2:30 PM CDT
• Chapters 6-9: Energy, Water, Environmental Quality and Building Commissioning
  Fri., Sept. 21, 2018, 11:00 AM - 12:30 PM CDT
• Chapters 10-11: Existing Buildings
  Fri., Sept. 21, 2018, 1:00 - 2:30 PM CDT

Slope Stabilization and Landslide Prevention
• Analyzing the Stability of Slopes
  Tues., Sept. 25, 2018, 11:00 AM - 2:15 PM CDT
• Slope Stabilization Methods
  Thurs., Sept. 27, 2018, 11:00 AM - 2:15 PM CDT

How to Register

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Fax: 715-835-6066

Mail: HalfMoon Education Inc., PO Box 278, Altoona, WI 54720-0278

Tuition
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